

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

#### A. Theoretical Framework

##### 1. E-Learning

###### a. The Definition of E-Learning

E-learning is a learning method that is usually used in the distance learning process. The definition of e-learning is broad. Many experts define e-learning from various points of view. The e-learning is made of "e" and "learning", which stands for "electronic learning".<sup>1</sup> Thus, e-learning can be interpreted as a learning process that uses the help of electronic devices. According to Nattaphon Phanchabikul E-learning is learning and training process that utilizes technology such as the internet and computer-based learning.<sup>2</sup> A similar theory is put forward by A. Pauline Chitra and M. Antony Raj that e-learning is a method that includes all educational activities that are carried out by individuals or groups working, online or offline, synchronously or asynchronously, via networked or standalone computers and other electronic instruments.<sup>3</sup> E-learning is a form of information technology applied in education to facilitate the learning process.

Another theory was put forward by Paulsen in Ari Widyanti that e-learning is an interactive manner of learning whereby learning content is provided online.<sup>4</sup>

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<sup>1</sup>Doris Apriani Ritonga, and friends, "The Effect of E-L Earning Toward Student Learning Outcomes," *Advances in Health Sciences Research* 23, (2019): 29, accessed on November 15<sup>th</sup>, 2020, <http://creativecommons.org/licenses/by-nc/4.0/>.

<sup>2</sup>Nattaphon Phanchanikul, "Using E-Learning to Improve English Communication Skills Of Thai Undergraduate Students" (*Thesis*, Thammasat university, 2015), 5, accessed on November 15<sup>th</sup>, 2020, [http://ethesisarchive.library.tu.ac.th/thesis/2015/TU\\_2015\\_5721040722\\_4802\\_2936.pdf](http://ethesisarchive.library.tu.ac.th/thesis/2015/TU_2015_5721040722_4802_2936.pdf).

<sup>3</sup>A Pauline and M Antony, *E-learning*, 11.

<sup>4</sup>Ari Widyanti, and friends, "E-Learning Readiness and Perceived Learning Workload among Students in an Indonesian University," *Knowledge Management and E-Learning: An international journal* 12, no.1 (2020): 16, accessed on 15<sup>th</sup>, 2020, <https://doi.org/10.34105/j.kmel.2020.12.002>.

While Albert Sangra and friends stated that there were four general groups definitions of e-learning: (1) Technology-driven: Use of technology to convey learning and training programs; (2) delivery-system-oriented: The delivery of a learning, training, or education program by electronic means; (3) communication-oriented: Learning facilitated by the use of digital devices and contents that involves the interactivity, belonging online interaction between the learner and their teacher or peers; and (4) educational-paradigm-oriented: Information and communication technologies used to support students to increase their learning.<sup>5</sup>

Meanwhile, Helena Rodrigues and friends define e-learning as an innovative web-based system based on digital technologies and other forms of educational materials whose main purpose is to provide students with a personalized, learner-centered, open, enjoyable, and interactive learning environment supporting and improving the learning processes.<sup>6</sup>

The next definition of e-learning comes from Sumit Goyal. He said that e-learning is the use of telecommunication technology to deliver information or theory for education and training. The other term to describe this mode is online learning, virtual learning, distributed learning, network, and web-based learning.<sup>7</sup>

According to Dian Wahyuningsih and RakhmatMakmur, there are two views regarding the definition of e-learning. The first view defines that e-learning as the learning activity that emphasizes the use

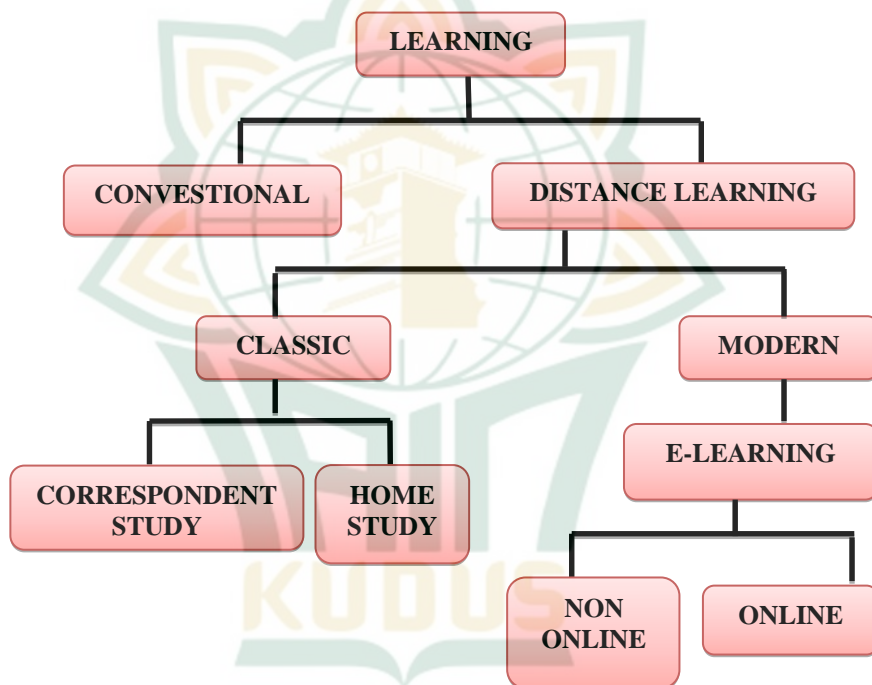
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<sup>5</sup>Albert Sangra and friends, "Building an Inclusive Definition of E-Learning: An Approach to the Conceptual Framework," *International Review of Research in Open and Distance Learning* 13, no. 2 (2012): 145, accessed on November 15<sup>th</sup>, 2020, <https://doi.org/10.19173/irrodl.v13i2.1161>.

<sup>6</sup>Helena Rodrigues and friends, "Tracking E-Learning through Published Papers: A Systematic Review," *Computers and Education* 136, (2019): 87, accessed on November 16<sup>th</sup>, 2020, <https://doi.org/10.1016/j.compedu.2019.03.007>.

<sup>7</sup>Sumit Goyal, "E-Learning: Future of Education," *Journal of Education and Learning* 6, no. 2 (2012): 240, accessed on November 16<sup>th</sup>, 2020, <https://media.neliti.com>.

of electronic media to help the learning process. The second view of the e-learning definition emphasizes the use of internet technology and networked computers in helping the learning process. The two views are actually not completely different when viewed from the element of media use because the origin of internet technology is part of electronic technology. The difference is the scope of the first definition is wider than the second definition. More precisely, here is the e-learning scope chart:<sup>8</sup>



**Figure 1. E-learning chart**

Based on the explanation above, it can be concluded that the definition of e-learning is a learning method that utilizes electronic technology and internet networks as a learning tool. The e-learning process can

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<sup>8</sup>Dian Wahyuningsih and Rakhmat Makmur, *E- Learning Teori Dan Aplikasi* (Bandung: Informatika Bandung, 2017), 3.

be used by anyone, anytime and anywhere because it is connected in a network so that it can facilitate interaction between teachers and students without being limited by space and time. Information technology that is often used to facilitate the learning process is computers and cellphones.

#### **b. The Characteristic of E-Learning**

E-learning has a significant difference from conventional learning. The difference can be seen from the characteristics inherent between the two. Conventional learning or face to face learning has characteristics, namely: 1) Limited learning process, 2) Real-time, 3) Control on educators, 4) Linear, 5) Secondary sources, and 6) Static.<sup>9</sup> Shortly, the scope of conventional learning characteristics is still limited and controlled by the teacher. Meanwhile, the Characteristics of e-learning according to Purwanto Hadityono in the Mandala Finance Academy Official YouTube channel are as follows:<sup>10</sup>

##### **1. Interactivity**

Interactivity leads to an effective and multidimensional learning process. In the e-learning process, there are more communication and information channels from multi-directions either synchronously (directly) or asynchronously (indirectly). The synchronous events take place in real-time. It is communication between two people that requires them to both be present at a given time which has been determined.<sup>11</sup> So, there is a reciprocal relationship between teacher and student via the internet at the same time. Examples of synchronous applications are chat conversations and audio/ video conferencing. Meanwhile, the asynchronous route

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<sup>9</sup>Dian and Rahmat, *E- Learning Teori*, 12.

<sup>10</sup>Purwanto Hadityatno, "Memahami E-learning dan Online Learning," Published on October 15<sup>th</sup>, 2019, Mandala Academy Official, Youtube, [https://www.youtube.com/watch?v=fJCWjC\\_H4](https://www.youtube.com/watch?v=fJCWjC_H4).

<sup>11</sup>Beatrice Ghirardini, *E-Learning Methodologies: A Guide for Designing and Developing E-Learning Courses* ( Rome: Food and Agriculture Organization of the United Nations (FAO), 2011), 13, <https://doi.org/I2516E/1/11.11>.

allows all participants to post communications to any participant over the internet. The Asynchronous events are time-independent. It is possible to have discussions between students and teachers via the internet but at different times.<sup>12</sup>The asynchronous route is carried out via email, learning videos, websites, and mailing lists, and so on.

## 2. Independency

Independency is defined as flexibility in choosing time, place, instructor, and teaching materials. It is caused the learning leads to student-centered (participant-centered learning). This statement is based on the opinion of Holmes and Gardner in Valentina Arkorful that the most vital characteristics of e-learning in education are student-centered.<sup>13</sup>E-learning makes students can study the material as often as they want according to their interests and learning needs both independently and collectively. So, the students can determine their own learning speed according to individual abilities, not the speed determined by others. The teacher here only acts as a facilitator and students independently to be active in the learning process.

## 3. Accessibility

E-learning makes learning resources are increasingly easy to access via the internet network with a wide and unlimited reach. So, the students can access learning resources more freely from anywhere and anytime they want. The examples of learning resources that can access via the internet are journals, videos, e-book, and so forth.

## 4. Enrichment

In the learning process such as presentations and training, it allows students to use information

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<sup>12</sup>Valentina Arkorful and Nelly Abaidoo, "The Role of E-Learning, Advantages and Disadvantages of Its Adoption in Higher Education, " *International Journal of Instructional Technology and Distance Learning* 2, no. 12 (2015): 401, accessed on November 16<sup>th</sup>, 2020, [https://itdl.org/Journal/Jan\\_15/Jan15.pdf](https://itdl.org/Journal/Jan_15/Jan15.pdf).

<sup>13</sup>Valentina and Nelly, *The Role of E-Learning*, 401.

technology such as video streaming, simulations, animations, and so on. By using a computer equipped with the internet and its application, it becomes a powerful weapon in the efforts to develop the material. So, the presentation of the material is more attractive and of high quality.<sup>14</sup>

The four characteristics above are what distinguish e-learning from conventional learning. In e-learning, the student's understanding is no longer influenced by the teacher but depends on the student in constructing knowledge through teaching materials provided in an unlimited internet network.

### c. The E-learning Theories

Each learning process has a basis or guideline that is used as a foothold in its application as well as e-learning. It's named a theory. According to Hans Joas and Wolfgang Knobl, the theory is used as a tool to assess, explain, and master something.<sup>15</sup> So with the theory in e-learning, the learning objectives can be achieved optimally and efficiently. The following are some supporting theories of e-learning or often known as the big three learning theories, they are:

#### 1) Behaviorism

Behaviorism is the study of human behaviors or attitudes. This theory explains that learning is a behavioral response system to a stimulus. It is the same with Skinner's opinion in Felix Modritscher that learning is a change in observable behavior caused by external stimuli in the environment.<sup>16</sup> So, this theory is a form of response that can be observed through changes in behavior after experiencing the learning

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<sup>14</sup>Hans Joas and Wolfgang Knob, *Social Theory: Twenty Introductory Lectures* (German: Cambridge University Press, 2009), 5, <https://www.amazon.com/Social-Theory-Twenty-Introductory-Lectures/dp/0521690889>.

<sup>15</sup>Hans and Wolfgang, *Social Theory*, 5.

<sup>16</sup>Felix Modritscher, "E-Learning Theories in Practice: A Comparison of Three," *Journal of Universal Science and Technology of Learning (JUSTL)* 0, no. 0 (2006): 6, accessed on November 16<sup>th</sup>, 2020, [http://www.justl.org/justl\\_0\\_0/elearning\\_theories\\_in\\_practice](http://www.justl.org/justl_0_0/elearning_theories_in_practice).

process. This theory recognizes the existence of reinforcement, reward, and punishment.<sup>17</sup> Reinforcement is anything that can stimulate and strengthen the emergence of response in students and can be positive and negative. A reward is an award given to students for their achievements in learning, rewards here can be the form of prizes. Finally, there is a punishment; it is giving punishment to students who are deemed deviant from a positive response so that by giving punishment it can change the negative response towards a positive response. The implications of behaviorism theory in e-learning are to provide clear learning objectives to students, provide feedback in the learning process, then provide reinforcement, reward, punishment, and the last is observe the development of student behavior.

## 2) Cognitivist

Cognitivist considers learning as an internal process that involves memory, thinking, reflection, abstraction, motivation, and meta-cognition.<sup>18</sup> This theory views learning as an internal activity that involves the mental and psychology of students which will have an impact on changes in students' perceptions and understanding after learning. In the learning process, information received through the senses is transferred to short-term and long-term memory through different cognitive processes. Each individual has a different cognitive scale due to the influence of biological and psychological mechanisms. The more complex a person's biological nervous system is the more psychologically mature it will be and will affect students' ability to learn. Here is the stage of cognitive development identified by Piaget, those are:

### a) Sensorimotor stage (Infancy)

At this stage, the child knows the world is limited but developing because it is based on physical

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<sup>17</sup> Dian and Rahmat, *E- Learning Teori*, 55.

<sup>18</sup> Felix, *E-Learning Theories in Practice*, 6.

interaction/experience. Children use their physicality and sensors to gain knowledge and perception.

b) Pre-operational stage (Toddler and Early Childhood)

At this stage, the child experiences intelligence development where the child begins to use and master symbols, language, and imagination in their daily activities.

c) Concrete operational stage (Elementary and Early Childhood)

At this stage, it is operational thinking develops level. Individuals understand logical operations with the help of concrete objects so that children can understand the basic concepts of objects, the amount of time, space, liquid, and others.

d) Formal operational stage (Adolescence and adulthood)

At this stage, the individual's cognitive abilities reach the peak of development where he can reason about abstract and logical things.<sup>19</sup>

The cognitivist theory recognizes assimilation, accommodation, and equilibration. Assimilation is a cognitive process where a person integrates perceptions, so in this process, students get new information or concepts from the outside and then adjust it to the cognitive structures or information they already have. Accommodation is the formation of new information, concepts or replacing old concepts so they are compatible with new ones. Meanwhile, equilibration is a balance between assimilation and accommodation.<sup>20</sup> The implications of the theory of cognitivist on e-learning can be seen from the design

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<sup>19</sup>Hummel J Huitt, "Piaget's Theory of Cognitive Development" (Educational Psychology Interactive, Valdosta State University, 2003), 2, <http://www.edpsycinteractive.org/topics/cognition/piaget.html>.

<sup>20</sup>Dwi Wijayanti, "Analisis Pengaruh Teori Kognitif Jean Piaget Terhadap Perkembangan Moral Siswa Sekolah Dasar Melalui Pembelajaran IPS," *Jurnal Pendidikan Ke-SD* 1, no.2 (2015): 85, accessed on November 16<sup>th</sup>, 2020, <https://jurnal.ustjogja.ac.id/index.php/trihayu/article/view/829>



of content that is under the stages of development of students and the provision of an evaluation stage for students.

### 3) Cybernetic

Cybernetics theory views learning as an activity of saving information from the senses to human memory. Human memory is divided into two, namely long term memory and short term memory. Short term memory stores information from the outside for a shorter period of time than long term memory. The greater the individual's cognitive readiness for incoming information, the information will be stored in long-term memory, especially if the information appears repeatedly. The implication of this theory is by modifying the information so that the information can be remembered properly and adjusting the content to the cognitive abilities of students. Information storage begins from the information being received by the sensory store and then stored by short term memory or long term memory.<sup>21</sup> The following is the flow of a series of information processing in humans, namely:

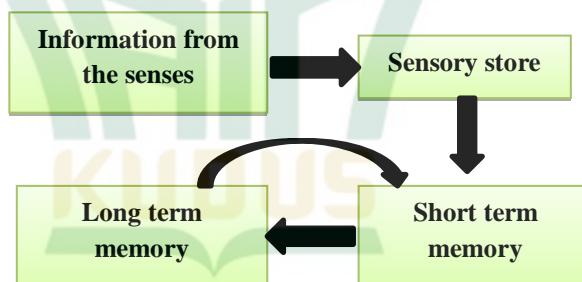


Figure 2. Information processing flow

### 4) Neurosciences

Neuroscience is the study of the nervous system concerning the biological base of consciousness, perception, memory, and learning. Neuroscience is also known as the study of the human brain because it

<sup>21</sup>Dian and Rahmat, *E- Learning Teori*, 59.

is a field of study that studies nerves in the human brain. It assumes that the nervous system and brain are the physical principles for the human learning process.<sup>22</sup> So, when someone wants to learn, he tries to stimulate his brain to be ready for this activity so that learning outcomes can be maximal. The application of this theory in e-learning is by creating varied and creative content, multiplying practices to optimize brain work, and so forth. The brain has a specific part and task. According to Sumit Kumar, Based on function, the brain is divided into multiple regions including:

a) Brain Stem

The brain stem is at the lowest position extending from the upper cervical spinal cord to the diencephalon of the cerebrum. It is responsible for automatic survival functions.

b) Diencephalon

Diencephalon is the central core of the forebrain that wraps the third ventricle. It consists of three paired structures, including the thalamus, hypothalamus, and epithalamus. The midbrain plays a role in regulating hormones, thirst and hunger taste, and body metabolism.

c) Cerebrum

The cerebrum is the largest part of the human brain and associated with a higher order of function namely thought and action. It also controls emotions, thought, speech, hearing, vision, personality, reading, learning, etc. The cerebrum is divided into two hemispheres, namely the right brain and the left brain. The right brain controls the left side of the body and vice versa the left brain controls the right side of the body. The right brain regulates human abilities in art and creativity.

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<sup>22</sup>Wijaya Hengki, "Pendidikan Neurosains dan Implikasinya Dalam Pendidikan Masa Kini," *Pendidikan Dasar2*, (2018): 1, accessed on November 17<sup>th</sup>, 2020, <https://www.researchgate.net/publication/323114055>.

Meanwhile, the left brain regulates the human ability to think and language.

d) Cerebellum

It is also called “the little brain”, is divided into two highly folded hemispheres including the anterior and posterior lobe. It helps coordinate voluntary movements and balance. It is also involved in nonverbal learning and memory.<sup>23</sup>

**5) Constructivist**

The constructivist school of learning votes that learners develop personal knowledge from the learning experience itself.<sup>24</sup> So every experience that students get will create concepts, meanings, knowledge in the learner both through personal and social experiences. The application of this theory in e-learning is by using cooperative and collaborative learning models and giving freedom to build knowledge independently. Honebein in Alex Koohang said that there are an advanced set of goals that aid the design of constructivism in learning settings. These goals are to:

- a) Provide experience with the knowledge construction process;
- b) Provide experience and appreciation for multiple views;
- c) Embed learning in realistic and relevant contexts;
- d) Encourage ownership and voice in the learning process;
- e) Embed learning in social experience;
- f) Encourage the use of multiple modes of representation; and
- g) Encourage self-awareness in the knowledge construction process.<sup>25</sup>

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<sup>23</sup>Sumit Kumar, "Anatomy of the Brain," *IGI Global* 11, no. 3 (2001): 20, accessed on November 17<sup>th</sup>, 2020, <https://doi.org/10.1288/00005537-191506000-00025>.

<sup>24</sup>Felix, *E-Learning Theories in Practice*, 7.

<sup>25</sup>Alex Koohang and friends, "E-Learning and Constructivism: From Theory to Application," *Interdisciplinary Journal of E-Skills and Lifelong Learning* 5, (2009): 93, accessed on November 17<sup>th</sup>, 2020, <https://doi.org/10.28945/66>.

#### d. E-learning Components

Several components must be fulfilled in the e-learning method, namely:

##### 1) Instructor

An Instructor or teacher is a person who provides direction, guidance, and assistance to develop knowledge and skills for the students through learning activities. The main key to the success of the learning implementation including e-learning is one of the instructors. To optimize learning through e-learning, instructors must have abilities such as mastery of the material in-depth, ability to design material, the ability to use internet tools or communication tools in e-learning, and the other ability.<sup>26</sup> In the e-learning process, the instructor can provide instruction to students through various media or content such as text, images, audio, video, and multimedia.

##### 2) Students

The students are people who need guidance to develop their potential through the learning process. In e-learning, learning is centered on learners and instructors are only facilitators. So it concept makes the students are trained to be active and independent in the learning process. The use of e-learning allows the students to learn at their own pace based on their interests and needs. The students can easily and freely find learning resources from teachers or the internet. In e-learning learners have the following characteristics:

- a) Skilled in using internet-based telecommunications technology
- b) Have good motivation and academic concepts.
- c) Able to interact at all levels of interactivity.
- d) Have the initiative to learn and able to collaborate in learning.<sup>27</sup>

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<sup>26</sup>Dian and Rahmat, *E- Learning Teori*, 48.

<sup>27</sup>Dian and Rahmat, *E- Learning Teori*, 52.

### 3) Courses

Courses are a series of lessons or lectures.<sup>28</sup> In e-learning, courses are conducted online. The way the online course works is by interacting via the internet. The instructor will send the material or exercise in the form of a file. Then, the students download and initiate it. Some of the criteria that must be met in the online course are:

a) The consistent presence of instructors (value feedback)

The role of the instructor in the e-learning process is very necessary as the encouragement, inspiration, and motivator in learning so that the students do not feel alone in learning.

b) Well-designed LMS( Learning Management System)

When it comes to LMS success, the students want an e-learning site that is easy to use, navigates, well organized, and contains high-quality materials. LSM must be well designed so that the students can use them easily and practically.

c) Suitable content

The materials also greatly influence the level of student satisfaction. It must be designed by the applicable curriculum to make the learning objectives are not misdirected. Besides, the content can also be modified according to the creativity of the instructor of e-learning so that it looks more attractive and students are excited.

d) Tested shipping methods

Instructors should always ensure that the materials they post for the students are compatible with all web browsers or platforms used. So, the uploaded content can be reached by the students.

e) Online tests and quizzes

Even though e-learning lacks an element of physical presence, tests and quizzes are still an

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<sup>28</sup>Victoria Bull, *Oxford Learner's Pocket Dictionary* (UK: Oxford University Press, 2011), 100.

important part of the educational process. Through online tests and quizzes, the instructor can assess the students' abilities and assess the effectiveness of the curriculum while at the same time, the students have the ability to track their own progress and improve their skills.<sup>29</sup>

#### 4) ICT

ICT stands for Information and Communication Technologies. In the case of e-learning, ICT plays a role as a tool or means that help the e-learning process that is available whenever and wherever needed, so that it can overcome space and time constraints. With the development of the times, ICT is needed in advancing various sectors of life, especially the education sector. This is in line with the opinion of Adina Petruta Pavel and friends that Information and communication technologies play a key role in the future development of higher education institutions and represent a catalyst for innovation, quality, and excellence in this sector.<sup>30</sup> The benefits of using ICT are very much felt especially in the current crisis. ICT is very helpful to support the learning process

#### e. The Advantages of E-learning

The advantages of e-learning are:<sup>31</sup>

- 1) E-learning offers flexibility in terms of time and place of learning. Each student has the flexibility to choose the time and place to study. With this convenience, learning information can be sent and received anytime and anywhere easily without being burdened with space and time problems.

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<sup>29</sup>Epignosis LCC, *E-Learning Concepts, Trends, Applications* (California: Epignosis LCC , 2014), 53, <https://www.talentlms.com/elearning/elearning-101-jan2014-v1.1.pdf>.

<sup>30</sup>Adina Petruta Pavel and friends, "ICT and E-Learning – Catalysts for Innovation and Quality in Higher Education, " *Procedia Economics and Finance*23, (2015): 710 , accessed on November 17<sup>th</sup>, 2020, [https://doi.org/10.1016/s2212-5671\(15\)00409-8](https://doi.org/10.1016/s2212-5671(15)00409-8).

<sup>31</sup>Valentina and Nelly, *The Role of E-Learning*, 401.

- 2) E-learning enhances the effectiveness of the teaching and learning process through easy access to a large amount of learning information.
- 3) It can improve relationships between students and teachers by using discussion forums. E-learning helps reduce learning barriers, one of which is the lack of student participation in learning due to the fear of speaking in front of other students. E-learning motivates students to participate in interacting with others, as well as expressing opinions, exchanging views, and respecting different thoughts. So the use of e-learning in learning can increase interaction and communication between students so that learning and teaching activities can run more effectively.
- 4) E-learning is a cost-effective learning model in the sense that students no longer need to spend a budget for traveling. Besides, e-learning is also cost-effective because it offers the opportunity to learn the maximum amount of learning in a network without special buildings.
- 5) E-learning always takes into account the different ways or interests of learning for each student. For example, some students prefer to learn by watching video lessons rather than written text. But the other students prefer to concentrate on certain parts of a subject when other students prepare to evaluate the entire course.
- 6) E-learning helps compensate for shortages of academic staff, including tutors, technicians, and teachers.
- 7) The application of the e-learning model enables self-pacing for students. For example, this asynchronous method can allow students to learn independently according to their level of learning speed, be it slow or fast. Therefore, applying e-learning can increase satisfaction and reduce learning stress because it offers flexibility in time and place to learn.

**f. The Disadvantages of e-learning**

The Disadvantages of e-learning are:<sup>32</sup>

- 1) E-Learning as a learning method makes students experience contemplation and isolation which can reduce the process of interaction or relations between students. Therefore, it takes strong inspiration and motivation from educators so that students participate actively in the learning process.
- 2) The e-learning method may be considered less effective than traditional learning methods when viewed from the point of view of clarity, the offering of explanation and interpretation. The learning process is made easier by using face-to-face learning methods with the teacher.
- 3) E-learning method has a negative effect on the process of improving student communication skills. Even though students have excellent cognitive abilities, students find it difficult to convey the knowledge they have acquired to others because the ability to communicate and interact is not taught during learning.
- 4) The assessment test in e-learning is much more difficult because it is done online so that it is impossible to control and regulate student bad behavior such as cheating.
- 5) E-learning may be misled by task piracy and plagiarism because not a few students work on assignments by applying copy-paste articles scattered on the internet.
- 6) E-learning can also exacerbate the socializing role of institutions, educators, and education staff.
- 7) Not all fields or disciplines are suitable for e-learning and can use e-learning techniques in the learning process. For example, a purely scientific field that includes practice where activities cannot be done online through e-learning. E-learning is more suitable in the social and humanities fields.

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<sup>32</sup>Valentina and Nelly, *The Role of E-Learning*, 401.



- 8) E-learning can cause web site traffic jams. This can cause unexpected losses in both time and money.

### g. E-learning Applications

In the learning process, the teachers need learning media to convey the material. The teaching using media can encourage students to take more responsibility for and control over their learning, engage in joint planning of the syllabus, and take longer-term perspectives on their learning.<sup>33</sup> Many applications can be used to support the application of e-learning in Indonesia. The following are some popular e-learning applications that have been successfully summarized by the researcher:

#### 1) WhatsApp

WhatsApp technology has the potential as a quality educational technology to contribute to education as a supportive technology.<sup>34</sup> WhatsApp is an application to exchange messages using the internet. E-learning development through WhatsApp can be done by utilizing the group feature to create a learning forum. WhatsApp groups can be used to online chat, share files, exchange photos and videos, and so on. This application provides video call services also but is limited to a few people.

#### 2) Google Meet

Google Meet is an application released by Google in 2017. It is an application that provides video communication services. Some of the features provided on Google meet are a). This application can be used by up to 100 participants in one meeting for G Basic Suite users, 150 participants for G Suite Business users, and 260 participants for G Suite Enterprise packages. b) The participants can join the

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<sup>33</sup>Abdul Khaliq R. Nasution, "YouTube as a Media in English Language Teaching (ELT) Context: Teaching Procedure Text," *Journal of Ultimate Research and Trends in Education* 1,no.1 (2019): 29, accessed on November 19<sup>th</sup>, 2020, <https://doi.org/10.31849/utamax.v1i1.2788>.

<sup>34</sup>Levent Cetinkaya, "The Impact of Whatsapp Use on Success in Education Process," *International Review of Research in Open and Distance Learning* 18, no.7 (2017): 69 , accessed on November 19<sup>th</sup>, 2020, <https://doi.org/10.19173/irrodl.v18i7.3279>.

meeting using the application or link. c) Integrated with Google Calendar to make one-click meeting calls. d) The participants can share the screen to present documents, spreadsheets, or presentations. e) This application has the ability to conduct online meetings with dial-in numbers.

### 3) Zoom

Zoom is one of the most popular video conferencing applications recently. This application provides long-distance communication services via video and audio. For one video conference, 100 participants can be invited. This application makes it easy for teachers and students to meet face to face online anywhere and anytime so that teachers can teach more efficiently just launched the Zoom meeting on their computer or a mobile device to check in with students.<sup>35</sup> Some of the features that the zoom app provides such as HD video and audio, built-in collaboration tools, security, recording and transcripts, scheduling features, team chat.

### 4) Google Suite for Education

Google is the name of a company that provides products and services around the internet. It is an information search engine that is most widely used by users around the world. Besides, Google also provides products and services that support learning using e-learning, namely:<sup>36</sup>

- a) Google classroom, this service provides a feature that is efficient, easy to use, and helps teachers in managing assignments. Teachers can create classes, assign assignments, give grades, send feedback, and see everything in one place using this application.
- b) Gmail, this application allows users to send and search messages, organize inbox, and build

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<sup>35</sup>S Ann Earon, *The Value of Video Communications in Education* (Boston: Telemanagement Resources International, 2017), 6, <https://zoom.us/docs/doc/The Value of Video Communications in Education.pdf>.

<sup>36</sup>Dian and Rahmat, *E- Learning Teori*, 86.

relationships using chat and integrated video meetings. Besides, Gmail can store e-mail safely in the cloud.

- c) Google Drive, this application makes it easy for users to store files in the cloud where files must be uploaded first before being stored on Google servers. Users only need to have a Gmail username and password to register for a Google Drive account.
- d) Google docs, this Google application offers a word processor, spreadsheet, and presentation features. The benefits that users get through this application are that users can upload files according to the agreed URL, do editing, translator, backup files, questionnaires, and edit images.
- e) Calendar sharing, this Google service is in the form of a class or group where the user is more than one person. This service makes it easy for users to target online projects that are carried out in e-learning.

#### 5) YouTube

YouTube is a video application from Google that is frequently visited by learners to facilitate the learning process. The use of YouTube is very effective because we can find many videos that can support the teaching and learning process there.<sup>37</sup>In addition, Learners remember and understand better when they see, hear and do the theory. <sup>38</sup>With YouTube, students can absorb information easier because the theory presented through a video that is equipped with attractive images, sounds, and animation. Many educational videos are stored on YouTube, such as video theories and practices. The users can download them easily using the internet network.

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<sup>37</sup>Abdul, "YouTube as a Media in English Language Teaching ,29.

<sup>38</sup>Dorothy De Witt and friends, "The Potential of Youtube for Teaching and Learning in the Performing Arts," *Procedia - Social and Behavioral Sciences* 103, (2013): 1119, accessed on November 19<sup>th</sup>, 2020, <https://doi.org/10.1016/j.sbspro.2013.10.439>.

#### 6) Ruang Guru

Ruang Guru is a learning application that helps students to solve all student learning difficulties. The content is available for various levels ranging from elementary, middle, and high school by the national curriculum and is designed specifically by the Master Teachers.<sup>39</sup> Learning using this application is done by watching interactive video tutorials by the teacher and animation that can be accessed via a smartphone. Ruang Guru was founded in 2014 to help students find online tutors. RuangGuru's main mission is to provide and expand access to quality education through technology for all levels of education, anytime, anywhere. There are several features of Ruang Guru, including study rooms, online tutoring rooms, classrooms, and several other features.

#### 7) Rumah Belajar

Rumah Belajar is a learning application developed by The Ministry of Education and Culture (MOEC) which is used by teachers in Indonesia to develop their professional skills, used as a medium of communication, and as a source of learning and teaching.<sup>40</sup> It is very useful for teachers and students during a pandemic like this because they have to carry out a distance learning process. It can be used by kindergarten to high school children. This learning application provides learning materials and communication facilities to support interaction between communities. There are several features provided by Rumah Belajar, including Digital Class, Learning Resources, Question Bank, Virtual Laboratory, and several other trapping features.

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<sup>39</sup>Irodatil Hudiah Khasanah, *Reinforcement of Material Using the Application Ruang Guru* (2019), 6, <https://doi.org/10.31227/osf.io/qwph5>.

<sup>40</sup>Putri Yanentha Istamia, "Improving Students' Character in English Learning Language Through Rumah Belajar Portal," *International Seminar and Annual meeting BKS-TN Wilayah Barat 1*, no.1(2018): 567, accessed on November 20<sup>th</sup>, 2020, <http://conference.unsri.ac.id/index.php/semirata/article/download/1169/538>.

## 8) Quipper

The Quipper school application was first launched by Masayuki Watanabe in London. It was first launched on December 5, 2010. The Quipper School smart application is an application that provides educational services between teachers and students. It supports teachers via virtual storage that allows them to upload and keep their PowerPoint presentations, PDF files, pictures, and videos online. In addition, the storage can be used by the teacher to manage the records of teaching and learning activities on the webserver; so that the teacher can control the learning process without the constraints of time and place.<sup>41</sup> Another advantage that this application has is a master teacher in every field.

## 2. English Learning

### a. The Definition of English Learning

The definition of English learning can be defined by analyzing the two forming words, namely English and Learning. English is one of the compulsory subjects taught in educational institutions in Indonesia to improve students' skills to use foreign languages (English). English is very important to be taught to students because it is an international language where its use is very crucial in various sectors of life such as education, economy, business, and so on. Therefore, English education is very important to be used as a provision for students in future life while exploring real life. Pindho Anjayani and Suprpto investigate that some skills must be learned in English, namely listening, speaking, reading, and writing.<sup>42</sup> By learning these four skills, students are expected to be able to communicate verbally and in writing using English

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<sup>41</sup>Herri Mulyono, "Using Quipper as an Online Platform for Teaching and Learning English as a Foreign Language," *Teaching English with Technology* 16, no.1 (2016): 61, accessed on November 20<sup>th</sup>, 2020, <https://www.researchgate.net/publication/306771014>.

<sup>42</sup>Pindo, and friends, *Error Analysis*, 2.

Furthermore, regarding the definition of "learning", there are several opinions according to the views of the figures. The first opinion came from William Darmaraj, he said that learning is an act of getting experience, knowledge, skills, values, by understanding what to do and how to do any task by synthesizing the different types of information perceived by us.<sup>43</sup> According to Chris Watkins, learning is an active process in which the learner relates the new experience to existing meaning may accommodate and assimilate new ideas.<sup>44</sup>

Jan De Houwer and friends also define learning as an ontogenetic adaptation that is as changes in the behavior of an organism that results from regularities in the environment of the organism.<sup>45</sup> According to A. H. Sequeira, Learning is a change: change is acquired by developing new skills, understanding scientific laws, and changing students' attitudes.<sup>46</sup> So, it can be concluded that learning is an active process of gaining and improving new experiences, knowledge, skills, ideas, and concepts carried out by students with the guidance of a teacher and after carrying out the learning process there will be a change in student behavior as the results of learning. There are several processes in learning. Chris Watkins and friends describe four elements in the learning process, those are:<sup>47</sup>

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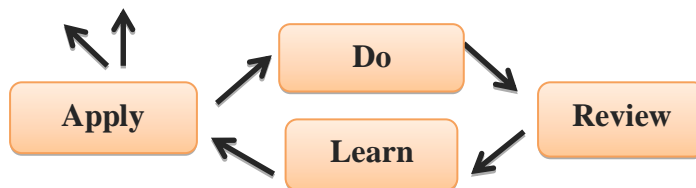
<sup>43</sup>William Darmaraj, *Learning and Teaching* (Tiruchirappalli: Bharathidasan University, 2015), 5, <http://www.bdu.ac.in/cde/docs/ebooks/BEd/I/LEARNING%20AND%20TEACHING.pdf>.

<sup>44</sup>Chris Watkins, "Effective Learning," *Research Matter* 2, no. 17 (2002): 1, accessed on November 20<sup>th</sup>, 2020, <https://doi.org/10.4324/9781315517933-29>.

<sup>45</sup>Jan De Houwer, and friends, "What Is Learning? On the Nature and merits of a Functional Definition of Learning," *Psychonomic Bulletin & Review* 20, no.4 (2013): 4, accessed on November 20<sup>th</sup>, 2020, [https://ppw.kuleuven.be/okp/\\_pdf/DeHouwer2013WILOT.pdf](https://ppw.kuleuven.be/okp/_pdf/DeHouwer2013WILOT.pdf).

<sup>46</sup>A. H. Sequeira, "Introduction to Concepts of Teaching and Learning," *SSRN Electronic Journal*, (2012): 1, accessed on November 20<sup>th</sup>, 2020, <https://doi.org/10.2139/ssrn.2150166>.

<sup>47</sup>Chris and friends, *Effective Learning*, 1.



**Figure 3.A model of the learning process**

This cycle highlights activities in learning including the teaching and learning process (Do). In learning, they need some reflection and evaluation to determine the level of student understanding (Review). After conducting the review, students will explore and solidify the meaning from the review that has been done (Learn). Furthermore, the application of concepts or knowledge that has been obtained from learning outcomes can be applied in various directions or fields (Apply).

So according to the researcher, English learning is the process of studying English to get some achievements including increased knowledge, skills, understanding, mastery, and appreciation in English.

#### **b. Factors Affecting English Learning**

English Learning can be achieved by students through serious efforts so that the goals can reach optimally. The English learning received by every student is different because of several factors. These factors come from students themselves, such as motivation, health, and others. And the second factor is the external factor; this factor is influenced by outside the student social environment and others. For more details, here is a description of the factors that affect English learning:

##### 1) Internal Factor

The internal factors of student learning outcome are:

###### a) Learning motivation

Motivation to learn is the power of the movement that exists in the students by creating a series of efforts and self-readiness to study seriously so that learning goals can be achieved. Strong motivation is very important for every

student to have. This is in line with the opinion of Terrell H Bell in Willy A Renandya, whosaid, "There are three things to remember in education. The first one is motivation. The second one is motivation. And the third one is motivation".<sup>48</sup> Motivation can be used as an amplifier and student learning persistence. The students who are motivated in learning will be more enthusiastic, goal-oriented, committed, persistent, and confident in learning. They are willing to work hard to achieve their aim and do not easily give up until they achieve that goal.<sup>49</sup> So, before learning activities begin, the teacher should encourage student motivation by telling the learning objectives or telling stories or inspirational figures or other things that can motivate students to be more enthusiastic and active in learning.

b) Physical factors

Which includes physical factors are health factors and body conditions (disabilities). Healthy means being in good condition or free from disease, there are no disturbances that attack the health of the body. The learning process will be optimal if students are in good health with perfect bodies. If students are sick, their body condition is unstable, they will feel weak, not excited, and feel other disturbances that can affect their learning concentration. So that a healthy and fit body is needed in the

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<sup>48</sup>Willy A Renandya, "Current Beliefs in ELT and Their Implications for Language Teaching", *The English Education UNS TEFL Internatioanl Conference*, (2013): 9, accessed on November 20<sup>th</sup>, 2020, [https://www.academia.edu/3560534/Current\\_Beliefs\\_in\\_ELT\\_and\\_their\\_Implications\\_Paper\\_](https://www.academia.edu/3560534/Current_Beliefs_in_ELT_and_their_Implications_Paper_).

<sup>49</sup>Willy A Renandya, "Essential Factors Affecting EFL Learning Outcomes," *English Teaching*68, no.4 (2013): 34, accessed on November 20<sup>th</sup>, 2020, [https://www.researchgate.net/publication/276882755\\_Essential\\_Factors\\_Affecting\\_EFL\\_LearningOutcomes](https://www.researchgate.net/publication/276882755_Essential_Factors_Affecting_EFL_LearningOutcomes).



learning process so that learning outcomes are more optimal in accordance with learning objectives.

c) Psychological factors

Included in the psychological factors are the intelligence, interests, talents, and readiness of students. Intelligence is one of the abilities to learn from experience and to adapt, to shape, and select environments.<sup>50</sup> Every individual has different intelligence. It can be seen from how to adapt to the learning environment and the speed at which a person responds to learning material. The second is interests, defined interests as a specific urge or desire related to feelings and intrinsic value.<sup>51</sup> Students who have an interest in learning will tend to focus their attention on the subject being studied so that it will produce maximum learning processes and results.

The next psychological factor is talent. Each individual has unique talents and is different from one another. The talent here means the innate ability possessed by a person as a special potential that needs to be honed and developed. A person who studies according to talent will find it easier and increase one's chances of success. The last is the self-readiness factor. Readiness means the willingness to start and do something such as the willingness to interact and respond when learning. Not only that, but readiness also includes a willingness to accept challenges and difficulties in learning.

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<sup>50</sup>Robert J. Sternberg, "A Theory of Adaptive Intelligence and Its Relation to General Intelligence," *Journal of Intelligence* 7, no.4 (2019): 19, accessed on November 20<sup>th</sup>, 2020, <https://doi.org/10.3390/jintelligence7040023>.

<sup>51</sup>Ulrich Schiefele, "Interest, Learning, and Motivation," *Journal Educational Psychologist* 26, no. 3 (2011):4, accessed on November 20<sup>th</sup>, 2020, [https://publishup.uni-potsdam.de/opus4-ubp/files/3170/schiefele1991\\_26.pdf](https://publishup.uni-potsdam.de/opus4-ubp/files/3170/schiefele1991_26.pdf).

## 2) External Factor

The external factor of student learning factors is:

### a) family and parents factor

The family is the first and foremost teacher for a child. In the family environment, students have received education since childhood such as using language, religious education, values, morals, and skills as basic provisions before entering educational institutions. After children enter the school environment, the role of the family is not changed and replaced, but it still continues. The family has an important role in the child's learning process in supporting and directing the children's learning process in school. Nguyen Thi Nhu and Duong Duc Minh said that the parent who participate in their children's educational activities, tend to have fewer problems in learning and better student achievement.<sup>52</sup> So the family environment that supports the process of children's learning activities will provide encouragement so that it can affect directly or indirectly on their learning motivation.

Children who receive more attention from their parents in the process of learning activities will be more motivated to be more active in improving their learning. Likewise, a calm and peaceful home atmosphere will be a good place to study for children. This is also supported by the opinion of Mustafa in Oktaviani Pratiwi Wijaya, he said that with the support of parents in the form of understanding and empathy parents become a source of strength for learners who have difficulty in learning so that support

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<sup>52</sup>Nguyen Nhu and Duong Duc Minh, "Factors Affecting English Language Learning Processes at Thai Nguyen University," *International Journal of Scientific and Research Publications* 9, no.8 (2019), 9720, accessed on November 20<sup>th</sup>, 2020, <http://dx.doi.org/10.29322/IJSRP.9.08.2019>.

can strengthen them.<sup>53</sup> So, we know that the first external factor that really supports the process and student learning outcomes is family. In relation to English learning outcomes, children will master English more if the family always introduces trains and provides understanding and vocabulary for children who speak English. Thus, students' chances of successfully speaking using English will be greater than children who are introduced to their local language only.

b) School Factor

The school environment is the second educational environment after the family. School is one of the factors that affect the growth and development of learners, especially on intelligence. The school environment plays a very important role in improving the mindset and maturity of children, because of the completeness of learning facilities and infrastructure, as well as the availability of good environmental conditions to support the creation of an effective learning environment. The social environment of schools such as teachers, educational staff (headmasters and representatives), and classmates can influence a student's learning spirit.<sup>54</sup> The teacher will show a professional attitude and full of enthusiasm and provide good role models for students in learning activities. So that students can imitate and be motivated to behave positively in the process. Within the scope of the school, there is something called the curriculum. The Curriculum is the subjects that study in schools and colleges: component subjects of the school

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<sup>53</sup>Oktaviani Pratiwi Wijaya, "Effect of Learning Motivation, Family Factor, School Factor, and Community Factor on Student Learning Outcomes on Productive Subjects," *Jurnal Pendidikan Bisnis Dan Manajemen* 3, no. 3 (2012): 197, accessed on November 20<sup>th</sup>, 2020, <https://pdfs.semanticscholar.org/ec39/42b9700165844718392a2441564564764865.pdf>.

<sup>54</sup>Oktaviani, *Effect of Learning Motivation*, 197.

curriculum. To achieve better English teaching and learning, the first possible issue to look at is the curriculum, as it is often the first thing on which learning objectives, teaching content, assessments, and teaching methods are based, and it is a major factor affecting language learning.<sup>55</sup> The curriculum is related to learning methods and media. Students will get great English learning outcomes if the media and methods used are suitable in delivering the material to be taught.

c) Community Factor

The last external factor that affects the student learning process is the community factor. Oktaviani PratiwiWijaya said that the community factor is the environment of residence, association, and lifestyle of the community around the residence.<sup>56</sup> So not only the family or teachers can influence the learning process, but also peers or the surrounding community. The interaction between peers was the highest contributor, followed by interaction with the teacher.<sup>57</sup> Learning Process will tend to be good if the students gather with friends and the right environment that can motivate the students to be enthusiastic about developing students' abilities, especially if a learning community is available. With the existence of a learning community, an effective environment is created and supports the students to be more enthusiastic in practicing or honing their skills in language, of course with their peers.

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<sup>55</sup>Nguyen and Duong, *Factors Affecting English Language Learning*, 9720.

<sup>56</sup>Oktaviani, *Effect of Learning Motivation*, 197.

<sup>57</sup>Ramlee Mustapha and friends, "Environmental Factors and Students Learning Approaches: A Survey on Malaysian Polytechnics Students," *Journal of Education and Learning (EduLearn)*8, no. 4 (2014): 389, accessed on November 20<sup>th</sup>, 2020, <https://doi.org/10.11591/edulearn.v8i4.784>.

### 3. The Education during the COVID-19 Pandemic

The 2019 coronavirus disease (COVID-19) outbreak has attacked most countries in the world, one of which is Indonesia. This disrupts community activities due to social distancing that must be implemented to reduce the spread of the virus. One of the activities that are disrupted is an educational activity. The COVID-19 pandemic has caused the biggest disruption to the education system in history, preventing nearly 1.6 billion students in more than 190 countries from carrying out normal educational activities.<sup>58</sup> There have been significant changes in the education sector following the COVID-19. Following are the changes that have occurred in the education sector during the COVID-19 pandemic era:

#### a. Educational System Transformation in The Era of the COVID-19 Pandemic

After the existence of a social distancing policy, The Ministry of Education and Culture (MOEC) prohibits educational institutions from implementing face-to-face learning. This is confirmed by the issuance of circular letter n0. 4 of 2020 from MOEC which contains recommendations for all activities in educational institutions to carry out social distancing and all material integration will be delivered at their respective homes through a distance learning system (e-learning). To keep students studying in mind, the MOEC has prepared several supports to smooth the process, they develop distance learning applications based on android: "Rumah Belajar" and has joined forces with seven online learning platforms namely Kelas Pintar, Quipper, Google Indonesia, Sekolahmu, Zenius, and Microsoft.<sup>59</sup> All of these platforms provide learning access facilities and are

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<sup>58</sup>Armando De Giusti, "Policy Brief: Education during Covid-19 and beyond", *Revista Iberoamericana de Tecnología En Educacion Y Educacion En Tecnología*, no. 26 (2020): 5 accessed on November 20<sup>th</sup>, 2020, <https://doi.org/10.24215/18509959.26.e12>.

<sup>59</sup>A Abidah, and friends, "The Impact of Covid-19 to Indonesian Education and Its Relation to the Philosophy of Merdeka Belajar," *Journal homepage 1*, no. 1 (2020): 39, accessed on November 20<sup>th</sup>, 2020, <http://scie-journal.com/index.php/SiPoSE>.

free. Apart from using the platform recommended by the Ministry of Education and Culture, other platforms that support the learning process are Zoom Meetings, Google Meet, Google Scholar, and WhatsApp. The platform is a connector that connects teachers and students in the learning process. Teachers can choose and use the right platform and according to their teaching needs.

In this situation, all forms of learning activities are mostly done online, both in the delivery of materials and evaluation. So that teachers and students have an important role in the learning process. The teachers must be creative and innovative in developing digital learning content and choose learning methods that are appropriate to the material to make the students are interested and participate actively in learning. The challenge in using e-learning is some teachers are weak in ICT skills so that the learning process is hampered. They find it difficult to develop online learning so that more training and adaptation to technology is needed.<sup>60</sup> Learning success is also measured by the students. They must participate actively, independently, consistently, and concentrate in online classes so that the material can be conveyed properly. To facilitate the achievement of learning objectives, it must be balanced with the selection of the right method. Here are some methods that can be pursued in the learning process in the pandemic era:

### 1) **Project-Based Learning**

The Project-Based Learning model has created to respond to letter no. 4 of 2020 from MOEC. The use of this learning model is by forming small groups to work on certain projects, experiments, and innovations. In the Project-Based Learning model, students have the opportunity to determine their own group projects, formulate questions, choose research topics, and determine patterns of research activities to be carried out.<sup>61</sup> So, learning activities are centered on

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<sup>60</sup>Armando, *Policy Brief*, 5

<sup>61</sup>Sri Wahyuningsih and Rini Dwi Susanti, "Meningkatkan Kemampuan Bahasa Inggris Calon Guru Madrasah Ibtidaiyyah Di Era Revolusi Industri 4.0

students and teachers only as facilitators. Project-based learning has advantages, namely providing training for students to collaborate or work together to complete a task, think creatively, and have a sense of empathy for others.<sup>62</sup> It can improve the critical thinking skills and also the creative thinking of the student. Student creativity arises from the process of sensing, observing problems, making hypotheses of problems, assessing, and testing hypotheses.<sup>63</sup> This model is very suitable to be applied to areas with yellow or green zones. But still, adhere to health protocols.

## 2) Daring Method

The definition of the daring method is a learning method that uses an interactive Internet-based model and a Learning Management System (LMS).<sup>64</sup> Learning is carried out in their respective homes. Media and learning resources are carried out online through social media, Facebook, WA, IG, YouTube, videos, and others.<sup>65</sup> The teacher uploads the material that has been made and students download the material that must be studied through communication technology. Teachers can be as creative as possible in making interesting learning content.

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Melalui Project- Based Learning," *Elementary Islamic Teacher Journal*8, no.1 (2020):4-5, accessed on November 23<sup>th</sup>, 2020 <https://journal.iainkudus.ac.id/index.php/elementary/article/view/6384>.

<sup>62</sup>Yustina, and friends, "The Effects of Blended Learning and Project-Based Learning on Pre-Service Biology Teachers' Creative Thinking Skills Through Online Learning in The Covid-19 Pandemic," *Jurnal Pendidikan IPA Indonesia*9, no.3 (2020): 410, accessed on November 20<sup>th</sup>, 2020, <https://doi.org/10.15294/jpii.v9i3.24706>.

<sup>63</sup>Yustina, and friends, *The Effects of Blended Learning*, 410.

<sup>64</sup> Andasia Malyana, Pelaksanaan Pembelajaran Daring Dan Luring Dengan Metode Bimbingan Berkelanjutan Pada Guru Sekolah Dasar Di Teluk Betung Utara Bandar Lampung," *Jurnal Ilmiah Pendidikan Dasar Indonesia* 2. no. 1 (2020):71, accessed on November 20<sup>th</sup>, 2020, <http://jurnal.stkipgribl.ac.id/index.php/pedagogia/article/download/640/467>.

<sup>65</sup>Rina Mutaqinah and Taufik Hidayatullah, "Implementasi Pembelajaran Daring (Program BDR) Selama Pandemi Covid-19 Di Provinsi Jawa Barat," *Jurnal Petik* 6, no.2 (2020): 94, accessed on November 20<sup>th</sup>, 2020, <https://journal.institutpendidikan.ac.id/index.php/petik/article/download/869/pdf>.

### 3) Luring Method (Offline learning)

The term of offline is an acronym for 'outside the network', it means disconnected from a computer network.<sup>66</sup> The application of this learning model is face-to-face learning by paying attention to the zoning system and health protocols. The luring method was suggested by MOEC to meet the curriculum simplification during this pandemic. The examples of offline activities including watching TVRI that has been provided by MOAC as learning and the students collect their work in the form of documents because offline activities do not use the internet and computer. The main purpose of practicing the luring method is to minimize the level of difficulty and students' incomprehension of a material. This model is very suitable to be applied in areas that are in the green or yellow zone.

### 4) Home Visit Method

The home visit is a learning model where the teacher visits students' homes at a certain time. It is one important effort to assist and guide the development of student's attitudes especially during the pandemic situation where student learning motivation is unstable.<sup>67</sup> In addition, the home visit method also aims to provide solutions to student problems direct learning from the teacher. A home visit can be applied in the green and yellow zones area.

### 5) Blended learning

Blended learning is a learning method that uses two approaches both e-learning and face-to-face learning. The Technologies that are often used in this method are smartphones and computers.<sup>68</sup> One form of

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<sup>66</sup>Andasia Malyana, *Pelaksanaan Pembelajaran Daring*, 71.

<sup>67</sup>Lailatus Syifa, and friends, "Implementation of Home Visite Program in Overcoming Student Learning Problems in SD Muhammadiyah 1 Pucanganom Sidoarjo," *Proceeding of the ICECRS 6*, (2020): 2, accessed on November 20<sup>th</sup>, 2020, <https://doi.org/10.21070/icecrs2020385>.

<sup>68</sup>Nailisy Syafa'ah and Sri Wahyuningsih, "The Use of Blended Learning in Promoting English Skills: The Case at State Islamic Senior High School 01



the application of blended learning is the teacher provides material through face-to-face learning (either online or offline mode), then the teacher asks students to access the samples via YouTube. The benefits of using this method are providing individual learning experiences, supporting and encouraging independent and collaborative learning, increasing the involvement of pre-service teachers in learning, and providing flexible learning, anytime and anywhere.<sup>69</sup> This method is safe to use in various zones, such as red, yellow, or green.

### **b. Curriculum Transformation**

The curriculum is a set of planned subjects that are given to teachers to regulate the teaching and learning process at certain age levels.<sup>70</sup> So the curriculum is a guideline or instructions for implementing teaching and learning activities. The curriculum can change anytime according to educational needs. During the pandemic, The Ministry of Education and Culture (MOEC) published guidelines for implementing the curriculum, or better known as the emergency curriculum. This curriculum is used as a guide for the learning process from home for areas with special conditions such as red, orange, yellow zones, and face-to-face learning in green zones. Because in this condition, learning cannot be carried out normally, so that relaxation and learning adaptation is needed. Three curriculum options can be used, namely: 1). Keep referring to the national curriculum, 2.) Using the emergency curriculum for educational units that need a curriculum with simpler standards and basic competencies, 3). Simplify the curriculum independently. The three curriculum options apply to all levels of education. Schools can choose one

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Kudus," (2020):4, accessed on November 23<sup>th</sup>, 2020, <https://doi.org/10.1145/3383845.3383883>.

<sup>69</sup>Yustina, and friends, *The Effects of Blended Learning*, 410.

<sup>70</sup>Fernandes Arung, "The Definition of Curriculum (Dictionaries and Experts)," June 3<sup>rd</sup>, 2014, <https://anekawarnapendidikan.wordpress.com/2014/06/03/the-definition-of-curriculum-dictionaries-and-experts>.

of the three options according to the characteristics of students and the environment.

An emergency curriculum is a form of simplification of the curriculum from the national curriculum. In the curriculum, basic competencies are reduced for each lesson so that students can focus on essential competencies and prerequisite competencies in learning. Teachers are no longer burdened to teach 24 hours face-to-face a week. However, teachers can focus on providing interactive learning without the need to complete curriculum achievements, especially class advancement or graduation.<sup>71</sup> Besides, MOEC also provides learning modules for early childhood education and elementary schools so that they are expected to help the process of learning activities at home. For students who are affected by the pandemic and have the potential to miss lessons, the Ministry of Education urges teachers to carry out a diagnostic assessment. This assessment is needed to check the cognitive and non-cognitive achievements of students after implementing distance learning. Cognitive assessment is shown to assess student learning achievement. Meanwhile, non-cognitive assessments were used to assess the psychological aspects of students.

**c. The Covid-19 Pandemic as The Momentum for Adapting Education 4.0**

The impact of the COVID-19 pandemic has changed the learning system from a face-to-face system to a technology-based distance learning system. Starting from basic education to tertiary institutions, teachers and students are required to be able to adapt to this learning system. Teachers are required to be creative in developing learning content using digital technology. Meanwhile, students must participate actively in the learning process from home using technology that supports them in every learning activity. Fortunately, the

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<sup>71</sup>Abd. Rahim Mansyur, "Dampak COVID-19 Terhadap Dinamika Pembelajaran Di Indonesia 118," *Education and Learning Journal* 1, no. 2 (2020): 118, accessed on November 23<sup>th</sup>, 2020, <http://jurnal.fai@umi.ac.id>.

sophistication of technology in the present or better known as the era of the industrial revolution 4.0 is very supportive of facilitating distance education. This can be seen from the variety of digital technologies that can be used as a learning tool accompanied by applications and supporting features. Examples of applications that are usually used in distance learning are the zoom application, Google classroom, Google meets, WhatsApp, and other supporting applications.

Nadiem Makarim said that during the trade-off period in the world of education, there were sacrifices from the quality of education during the pandemic, but on the bright side, there was an adaptation to technology.<sup>72</sup> Clearly, although the quality of learning now may be sacrificed, future technology adaptation investment will be better. In addition, before the Covid-19 pandemic, the learning process using an online model with era 4.0 technology was a dream. It is rare for an institution to be sensitive to the use of technology in education. However, now with the existence of Covid-19, educational institutions are forced and accelerated to adapt to using 4.0 technologies in distance learning activities. This situation causes anxiety and stuttering in the learning process because of their unfamiliarity with using technology in learning activities.

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<sup>72</sup>Rahel Narda Chaterine, "Nadiem Ungkap Tantangan Belajar Dari Rumah Akibat Pandemi Covid-19," *DetikNews*, June, 9<sup>th</sup>, 2020, <https://news.detik.com/berita/d-5047242/nadiem-ungkap-tantangan-belajar-dari-rumah-akibat-pandemi-covid-19>.

## B. Review of Previous Studies

The previous study is useful to find out previous studies that are relevant to the research that the author is doing, but it is also intended to complete a research study entitled “English Language Teaching Amid Covid-19: The Use of WhatsApp and Google Classroom as Online Learning Tools on Indonesian Islamic Senior High School 2020/ 2021”. The results of previous studies in this study took from some researchers, like a thesis and international journals, those are:

1. The first is from Tiara Dwi Lestari, with the thesis entitled “Students’ Perspectives in Studying English of Using Google Classroom and WhatsApp Applications as Learning Tools during in COVID-19 Pandemic at SMP N 2 Kota Jambi” This study uses a qualitative method. The results showed that the Students’ Perspectives in Studying English of using Google Classroom and WhatsApp applications as Learning Tools during in COVID-19 Pandemic at SMP Negeri 2 Kota Jambi is showing a negative response because of the difficulties in using these applications. The difficulties are from the connectivity problem, the small phone memory capacity, student’s preparation, and others. The difference between the previous study and the thesis that written by the researcher is that the previous study discusses the students’ perception on the use of Google Classroom and WhatsApp applications in English language teaching. Meanwhile, this research focuses on using WhatsApp and Google Classroom in English language teaching as Online Learning Tools, the difficulties and solutions of using those applications. The similarity of the previous study with the thesis to be written by the researcher is that both use qualitative methods and discuss the use Google Classroom and WhatsApp applications in the scope of the English language teaching.<sup>73</sup>

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<sup>73</sup>Tiara Dwi Lestari, "Students’ Perspectives in Studying English of Using Google Classroom and WhatsApp Applications as Learning Tools during in COVID-19 Pandemic at SMP N 2 Kota Jambi" (Thesis, Jambi University, 2021), 1-76, <https://repository.unja.ac.id>

2. Research conducted by Sihatul Mardiahin thesis entitled "Students' Perception on the Use of WhatsApp Application in Teaching of English at Eight Grade Students' of Madrasah Tsanawiyah Nurul Hidayah Bhakti Idaman Tanjab Timur Jambi". This previous study used qualitative approaches. The results showed that students' perception on the use of WhatsApp application in English language teaching does not give maximum results for them. Most students felt difficult to understand the teaching materials provided by the teacher through the WhatsApp application. The difference between the previous study and the thesis written by researcher is that the previous study discusses the Students' Perception on the Use of WhatsApp Application in English language teaching. While the study that carried out by researcher is focused on using WhatsApp and Google Classroom in English language teaching as Online Learning Tools. The similarity of the previous study with the thesis to be written by the researcher is that both discuss the use of whatsApp application as online learning tools in English language teaching,. Another similarity is also found in the research method used, both of them using qualitative approaches to finish the study.<sup>74</sup>
3. Further research by Raskova Octaberlina and Afif Ikhwanul Muslimin. In their journal entitled "EFL Students Perspective towards Online Learning Barriers and Alternatives Using Moodle/Google Classroom during COVID-19 Pandemic". This previous study used the quantitative and qualitative method. The results showed that students experienced three problems during online learning using Google classroom including unfamiliarity of e-learning, slow internet connection, and physical condition such as eye strains. Besides, the Solution they

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<sup>74</sup>Sihatul Mardiah, "Students' Perception on the Use of WhatsApp Application in Teaching of English at Eight Grade Students' of Madrasah TsanawiyahNurulHidayah Bhakti Idaman Tanjab Timur Jambi", ( thesis: The State Islamic University of Sultan ThahaSaifuddin Jambi, 2020) , 1-35, <http://repository.ummat.ac.id>.

proposed were providing training to implement the LMS before the online class, converting big-size files into smaller ones, and giving break to students. The difference between the previous study and the thesis that written by the researcher is that the previous study discusses the use of Moodle/Google Classroom to EFL learners, but in the researcher's study, it used WhatsApp application also. Another difference also exists in the method used in the previous study; it used the quantitative and qualitative method, while this study used a qualitative method to finish the study. The similarity of the previous study with the thesis to be written by the researcher is that both discuss the use of using Google Classroom as Online Learning Tools in English Language Teaching Process and also discuss the e-learning scope.<sup>75</sup>

4. The other research is from Nurul Ermawati, her research entitled "The Analysis of Students' Perception on the Efficient Application Used in Online Learning in the midst of COVID-19 Pandemic (A Survey at the Fifth Semester Students of English Education Department of IAIN Salatiga)". This previous study used qualitative research. This study showed that the students have positive perception about the use of efficient application in online learning during the COVID-19 pandemic, the most of them prefer to use Whatsapp application. WhatsApp application becomes an alternative way to conduct learning activity from home and it is the most efficient, comfortable and economical application to use during the pandemic. The difference between the two studies lies in the focus of the research, where the research conducted by Nurul Ermawati focuses on the perceptions of English Education Department Students about efficient applications used in online learning tools in the midst of COVID-19 pandemic. While, this study focuses on the use of Whatsapp and

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<sup>75</sup>Raskova Octaberlina and Afif Ikhwanul Muslimin, "EFL Students Perspective towards Online Learning Barriers and Alternatives Using Moodle/Google Classroom during COVID-19 Pandemic, International Journal of Higher Education 9, no. 5 (2020), accessed on November 23<sup>th</sup>, 2020, <http://ijhe.sciedupress.com>.

Google Classroom application in English language teaching to facilitate the online learning process. The similarity lies in the use of qualitative research in the research process and the two studies discuss the use support application to facilitate the online learning in the era of the COVID-19 pandemic.<sup>76</sup>

5. The last research is from Nafiseh Zarei, Kadija Fathi, and Harpreet Kaur, their research entitled "A Review of The Literature on Integration of WhatsApp Into English Language Classroom". This previous study used a Library Research. The results showed that WhatsApp as an online learning tool can simplify the learning process, educators and students can communicate through this application anywhere and anytime. In addition, with proper training in using WhatsApp, it can help educators become on par with 21st century teaching, while this study focuses on the use of Whatsapp and Google Classroom application in English language teaching to facilitate the online learning process. The difference between the previous study and the thesis that will be written by the researcher is this study just reviews the literature regarding the use of WhatsApp in English language classroom, Another difference also exists in the method used in the study. The previous study used library research, while this study used a qualitative method. The similarity of the previous study with the thesis to be written by the researcher is that both discuss the use of WhatsApp as a learning method during the COVID-19 pandemic.<sup>77</sup>

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<sup>76</sup>Nurul Ermawati, "The Analysis of Students' Perception on the Efficient Application Used in Online Learning in the midst of COVID-19 Pandemic (A Survey at the Fifth Semester Students of English Education Department of IAIN Salatiga)", (Thesis: IAIN Salatiga, 2020), <http://e-repository.perpus.iainsalatiga.ac.id/id/eprint/10061>.

<sup>77</sup>Nafiseh Zarei, Kadija Fathi, and Harpreet Kaur, "A Review of The Literature on Integration of WhatsApp Into English Language Classroom," *Research Journal of English* 5, no. 2 (2020), accessed on November 23<sup>th</sup>, 2020, [www.rjoe.org.in](http://www.rjoe.org.in).