

# CHAPTER I

## INTRODUCTION

### A. Research Context

The industrial revolution 4.0 is an effort that allows industry players to let computers connect and communicate with each other. And finally, making decisions without involving human involvement, the combination of cyber-physical, internet of Things (IoT) and internet of systems which simultaneously makes the fourth-generation industrial revolution possible. It is also in line with the Hannover Fair's statement, he said that 4.0 era is a "cyber physical system". He defines, "Systems, that directly link real (physical) objects and processes with information that processing (virtual) object and processes via open, partially global and always interconnected information networks".<sup>1</sup> The cyber physical system itself is a phenomenon where there is a collaboration between cyber technology and automation technology. Another perception about the 4.0 era is also known as digital era. The digital era is a period that has experienced developments in all aspects of life from what was analog to all digital or using technology. In the digital era, it is easier for us to get various information via the internet with the support of adequate devices. While the users of this 4.0 era start from millennial generation.

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<sup>1</sup> Mohamed Amr, Mohamed Ezzat, and Sally Kassem, "Logistics 4.0: Definition and Historical Background," in *2019 Novel Intelligent and Leading Emerging Sciences Conference (NILES)* (Giza, Egypt: IEEE, 2019), 46–49, <https://doi.org/10.1109/NILES.2019.8909314>.

Millennials consist, depending on whom you ask, of people born from 1980 to 2000.<sup>2</sup> To put it more simply, millennials generation is also known as Y generation i.e a group of people born after X generation. They are the most threatening and exciting generation since the baby boomers brought about social; revolution, not because they are trying to take over the establishment but because they are growing up without one.<sup>3</sup> The digital era made individuals more agile in interacting and easier to innovate.

Discussion about learning, there are two major kinds of goals of learning: remembering and understanding. Remembering is the ability to reproduce or recognize the presented material and is assessed by retention tests. The most common retention test is recall – in which learner are asked to reproduce what was presented (such as writing down all they can remember for a lesson they read) – and recognition – in which learner are asked to select what was presented (as in a multiple choice question) or judge whether a given them was presented (as in a true – false question). Thus, the major issue in retention test involves quantity of learning – that is, how much was remembered.

While understanding is the ability to construct a coherent mental representation from the presented material. It is reflected in the ability to use represented material in novel situations and is assessed by transfer test. In a transfer test, learners must solve problems that were not explicitly given in the presented material-that is, they must apply what they learned to a new situation.

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<sup>2</sup> Sharon A DeVaney, “Understanding the Millennial Generation,” 2015.

<sup>3</sup> DeVaney.

An example is an essay question that asks learners to generate solutions to a problem, which requires going beyond the presented material. The major issue in transfer test is involves the quality of learning – that is, how well can someone use what they have learned.<sup>4</sup>

According to Haas, media can be defined by its technology, symbol systems, and processing capabilities. The most obvious characteristic of a medium is its technology: the mechanical and electronic aspect that determine its function and, to some extent its shape, and other physical features. These are characteristics that are commonly used to classify a medium such as television, radio, and so on. The cognitive effects of these characteristics, if any, are usually indirect. Characteristics such as size, shape, and weight make it more likely that a student will learn with a book but not a computer while on a bus, although of course this predilection is changing as computers get smaller, lighter, and cheaper. A few cognitive effects of technology, however, are more direct. For example, the size and resolution of many computer screens are such that reading their text be more difficult than reading the text of some books.<sup>5</sup>

Learning media is important in supporting students' learning interest so that the learning media also has an important role in students' learning achievement. The most common medium encountered in school learning is books. As the medium, books can be characterized by the symbol, by the symbol

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<sup>4</sup> *The Cambridge Handbook of Multimedia Learning*, accessed June 17, 2022, [https://books.google.com/books/about/The\\_Cambridge\\_Handbook\\_of\\_Multimedia\\_Lea.html?hl=id&id=SSLdo1MLIywC](https://books.google.com/books/about/The_Cambridge_Handbook_of_Multimedia_Lea.html?hl=id&id=SSLdo1MLIywC).

<sup>5</sup> Robert B. Kozma, "Learning with Media," *Review of Educational Research* 61, no. 2 (June 1991): 179–211, <https://doi.org/10.3102/00346543061002179>.

system they can employ text and picture. The English teachers at SMPN 1 Pamekasan commonly using books as media to deliver the material to the student. However, the researcher found in phenomenon that SMPN 1 Pamekasan is using overhead projector, PowerPoint as a learning media during teaching and learning activities.

The innovation of media teaching is needed to know how far the development of teaching media with millennial generation as a learner. Whether or not the medium capabilities make a difference in learning depends on how they correspond to the particular learning situation –the task and students involved- and the way the medium capabilities is used by instructional design.<sup>6</sup>As a millennial teacher, of course researcher need a revolution of media teaching in this 4.0 era by adjusting to the facilities and infrastructure in several junior high school in Pamekasan.

The researcher took advantage of the teaching practice moment at SMPN 1 Pamekasan as a pre-observation of phenomenon that researcher found at school. Based on pre-observation at SMPN 1 Pamekasan, researchers found that the teaching media used by English teachers at SMPN 1 Pamekasan used instructional teaching media such as flashcards, real objects, and smartphones so that this made it easier for English teachers to convey material to students. Because English lessons are foreign language lessons that are difficult to grasp and difficult to understand if you don't use interesting learning media.

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<sup>6</sup> Kozma.

Based on description above, the researcher is interested in knowing about the 4.0 popular teaching media that used by English teachers at Pamekasan. Especially in SMPN 1 Pameksan which Pamekasan city as a city of education since December 2010 and in SMPN 1 Pamekasan the researcher found the learning. Therefore, the researcher is interested in the research with the title “A Study on Popular 4.0 Teaching Media Used by English Teachers at SMPN 1 Pamekasan.”

## **B. Research Focus**

Research problems are the educational issues, controversies, or concerns that guide the need for conducting a study.<sup>7</sup> Based on research context as described above, this research is focused on the formulation of the problem as follow:

1. How do English teachers use teaching media in the 4.0 era at SMPN 1 Pamekasan?
2. What are advantages and disadvantages of teaching media that used by English teachers in the 4.0 era at SMPN 1 Pamekasan?

## **C. Research Objective**

1. To find out English teachers use teaching media in the 4.0 era at SMPN 1 Pamekasan.
2. To find out the advantage and disadvantage of teaching media that used by English teachers in the 4.0 era at SMPN 1 Pamekasan.

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<sup>7</sup> John W. Creswell, *Educational Research Planning, Conducting And Evaluating Quantitative and Qualitative Research*, Fourth Edition (Boston: Pearson, 2012), 59.

#### **D. Significance of Study**

Significance of study is describing the usefulness or urgency of the research, either scientific use (theoretical) as well as social use (practical).<sup>8</sup> Therefore, significance of study is a statement that explains the benefits of the research conducted, especially for education, students, and the researcher themselves. The researcher establishes significances of study which consist of the aspects as follows:

##### 1. Theoretically

The results of this study will be helpful in providing resources and information on education, especially in the field of teaching media. It will also serve as an alternative reference for enriching your knowledge about the popular teaching media on 4.0 era that used by English teachers at SMPN Pamekasan.

##### 2. Practically

###### a) The teachers

The aim of this study is to find out directly for the popular teaching media on 4.0 era that used by English teachers at SMPN Pamekasan.

###### b) For researcher

As the researcher and future teacher, the results of this research will be one of experience and knowledge about teaching media on 4.0 era that popular used by English teachers at SMPN Pamekasan.

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<sup>8</sup> *Pedoman Karya Tulis Ilmiah* (Pamekasan: Institut Agama Islam Negeri Madura, 2020), 19.

## **E. Definition of Key Term**

Definition of key terms or operational definitions are required for avoid differences in meaning or lack of clarity of meaning.<sup>9</sup> To avoid misunderstanding or unclearly meaning and word confusion for readers when explaining key terms, the researcher want to provide an explanation of the term, as follow:

### 1. 4.0 Eraera

4.0 era is a digital revolution where an era that focuses on automation that consists most of millennial's generation.

### 2. Teaching Media

Teaching media refers to intermediaries commonly used by teachers in delivering the material to students inside or outside class.

## **F. Previous Study**

The researcher found the study written by Assyifa Salsabila Arsaf entitled "Teaching English in Industrial Revolution 4.0: Challenges and Opportunities".<sup>10</sup> This research is about finding out and investigating the challenges and opportunities of teaching English in 4.0 industrial revolution and the strategies for the innovative classroom. It also stated that in terms of educational context, the 4.0 industrial revolution focuses on innovation and maximize the use of information, the internet, and technology. This new paradigm is currently promoted in many subjects, including English topics in

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<sup>9</sup> *Pedoman Karya Tulis Ilmiah*, 19.

<sup>10</sup> "Assyifa Salsabila Arsaf, 160203016, FTK, PBI, 085212248247.Pdf," n.d.

term of English foreign language students. Teaching and education are two things that are related to each other; in this era of the industrial revolution, most schools and institutes use technology in teaching and learning English. The new era assigns new challenges and duties to the modern teacher. The tradition of English teaching has been drastically changed with the technology which provides many options to make education more exciting and more productive in terms of improvements. The similarity of this research with the research that researcher will do is about 4.0 industrial revolution teaching English. While the difference is that the researchers want to focus on the media of teaching that used by English teachers.

The researcher also found the study written by Fajar Wirawan entitled “A Study on the Teaching Media Used by the English Teacher at SMPN Muhammadiyah 2 Malang”.<sup>11</sup> This research is about finding out and investigating the media that that used by English teacher and the strength of teaching media in teaching English at SMPN Muhammadiyah 2 Malang. It also stated that the use of media in SMPN Muhammadiyah 2 Malang in order to attract creativity and more attention from all students. So, in the learning process, the teacher could control the behavior of students in the classroom. The media helped the teacher to explain the lesson material to all students to create a more effective class atmosphere. In this study, the researcher found that the teacher used multimedia in the teaching and learning process. The simpler and

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<sup>11</sup> Fajar Wirawan, “A Study on The Teaching Media Used by The English Teacher at SMP Muhammadiyah 2 Malang,” *Jurnal Ilmiah Profesi Pendidikan* 5, no. 2 (November 28, 2020): 89–95, <https://doi.org/10.29303/jipp.v5i2.115>.



most interesting multimedia was Microsoft power point. The teacher used a laptop and digital projector to support Microsoft power point. It was used for spelling material. By using Microsoft power point the students could be focus to and more active. The similarity of this research with thye research that researcher will do is about teaching media that used by the English teacher. While the differed is that the researchers want to focus on the media that used by English teacher in 4.0 industrial revolution era.

And other study that the researcher found is written by Rasika Lawrence, Lim Fung Ching, &Herlinda Abdullah entitled “Strengths and Weaknesses of Education 4.0 in the Higher Education Institution”.<sup>12</sup> This research is about to discuss the strengths and weakness of education 4.0 in Malaysia education industry. This study stated that education 4.0 creates an opportunity for educators to engage in new technology tools and it enhances the knowledge of the educators on technology more in depth. It also helps lecturers and students to enhance their knowledge & usage of technology in depth. In addition, it promotes the development of technology classroom into the 21<sup>st</sup> century skills. However, there is high resistance to change in adapting and shifting the mind set of lecturers towards adopting technology-based education as it can limit the engagement or involvement of an educator with the students. Technology is also found to disconnect learners from the real world. This study provides insights of the strengths and weaknesses of education 4.0 to the

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<sup>12</sup> “Strengths and Weaknesses of Education 4.0 in the Higher Education Institution,” *International Journal of Innovative Technology and Exploring Engineering* 9, no. 2S3 (December 30, 2019): 511–19, <https://doi.org/10.35940/ijitee.B1122.1292S319>.

Ministry of Higher Education Malaysia and to the academics so that strategies in maximizing, the strengths and strategies in overcoming the weaknesses education 4.0 can be developed. The similarity of this research with the research that researcher will do is about the strengths and weaknesses of education 4.0 that might can help the researcher to do this research. While the difference is that the researcher want to focus on the strengths and weaknesses of teaching media in education 4.0 industrial revolution era.