

CHAPTER I

INTRODUCTION

A. Research Context

The commercial revolution 4.0 is an effort that lets in industry gamers to let computers join and communicate with each different. And ultimately, making selections with out involving human involvement, the combination of cyberphysical, net of factors (IoT) and internet of structures which concurrently makes the fourth-era commercial revolution feasible. it is also in keeping with the Hannover fair’s statement, he stated that 4.0 technology is a “cyber bodily machine”.

He defines, “structures, that immediately link real (physical) items and techniques with information that processing (digital) object and methods thru open, in part global and continually interconnected information networks”.¹ The cyber physical device itself is a phenomenon in which there may be a collaboration between cyber era and automation technology. Any other notion approximately the 4.0 generation is likewise known as virtual technology. The virtual generation is a period that has experienced trends in all components of existence from what changed into analog to all virtual or the use of era. in the digital era, it's miles less difficult for us to get numerous facts through the internet with the support of good enough devices.

¹ 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>.

The implementation in the SMPN 2 Pamekasan to digital pedagogy is the teacher in teaching use the media digital for the example is handphone, tablets and laptop. Based on researcher observation three times, the researcher find the teacher use media digital in teaching, the teacher always use the media digital for teaching for example the teachers could hold an online class once a week via Google Meet for speaking practice. Additionally, teachers could assign interactive tasks, such as creating short videos in English to be uploaded on the digital classroom platform, in the SMPN 2 Pamekasan use WhatsApp for classroom platform. By applying this framework, SMPN 2 Pamekasan can maximize the potential of digital pedagogy and effectively build students English language skills in the 4.0 Era.

Whilst the users of this 4.0 era start from millennial era. Millennials consist, depending on whom you ask, of people born from 1980 to 2000.² To position it greater absolutely, millennials technology is likewise known as Y technology i.e a set of people born after X era. They're the most threatening and exciting technology for the reason that child boomers introduced approximately social; revolution, not due to the fact they're looking to take over the status quo but because they may be developing up without one.³ The digital technology made individuals more agile in interacting and easier to innovate.

In the contemporary educational landscape, the advent of the Fourth Industrial Revolution, often referred to as Industry 4.0, has brought about significant changes in various sectors, including education. This era is marked

² Sharon A DeVaney, "Understanding the Millennial Generation," 2015.

³ Sharon A DeVaney, "Understanding the Millennial Generation," 2015.

by the pervasive integration of digital technologies into daily life, reshaping the way individuals communicate, work, and learn. Consequently, there is a growing emphasis on leveraging digital tools and innovative media to enhance teaching and learning experiences, particularly in the field of language education.

Within this context, the teaching of English as a second language occupies a central position, given its global significance as a *lingua franca* in various domains, including business, academia, and technology. As educators strive to prepare students for the demands of an increasingly interconnected and digitalized world, there is a pressing need to explore effective strategies for integrating digital pedagogy into English language instruction.

The proposed research focuses on addressing this need by developing a comprehensive framework for integrating innovative media into the teaching of English at SMPN 2 Pamekasan. SMPN 2 Pamekasan serves as the research site, providing a specific context for investigating the implementation and effectiveness of digital pedagogy strategies within a secondary school setting.

By conducting this research, we aim to contribute to the existing body of knowledge on digital pedagogy and language education by:

1. Identifying current trends and best practices in digital pedagogy within the 4.0 era.
2. Exploring the unique challenges and opportunities associated with integrating innovative media into English language instruction.

3. Developing a practical framework that guides educators at SMPN 2 Pamekasan in effectively incorporating digital tools and resources into their teaching practices.
4. Evaluating the impact of the proposed framework on student engagement, learning outcomes, and overall language proficiency.

Through this research endeavor, we seek to empower educators with actionable insights and resources that enable them to harness the potential of digital technologies to create dynamic and immersive learning environments conducive to English language acquisition and proficiency development.

In keeping with Haas, media can be defined with the aid of its generation, symbol structures, and processing skills. The maximum apparent feature of a medium is its technology: the mechanical and digital thing that decide its characteristic and, to a degree its shape, and different bodily functions. those are traits which can be commonly used to classify a medium such as tv, radio, and so forth. The cognitive effects of these traits, if any, are generally oblique. characteristics which includes size, shape, and weight make it much more likely that a pupil will analyze with a e-book but now not a pc while on a bus, even though of route this predilection is changing as computer systems get smaller, lighter, and inexpensive. a few cognitive effects of generation, but, are greater direct. for instance, the dimensions and backbone of many pc

screens are such that analyzing their textual content be extra difficult than studying the textual content of a few books.⁴

Gaining knowledge of media is vital in assisting students' studying hobby in order that the studying media additionally has an important function in college students' getting to know fulfillment. The maximum common medium encountered in college studying is books. as the medium, books can be characterized by the symbol, with the aid of the image gadget they are able to hire textual content and picture. The English teachers at SMPN 2 Pamekasan normally the usage of books as media to deliver the material to the student. however, the researcher determined in phenomenon that SMPN 2 Pamekasan is using overhead projector, PowerPoint and other teaching media as a studying media in the course of teaching and gaining knowledge of activities. The innovation of media teaching is wanted to recognize how far the development of coaching media with millennial technology 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.⁵ 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.

Now, everything is influenced by technology, including how we learn. In schools, teachers are using computers, tablets, and the internet to help students

⁴ Robert B. Kozma, "Learning with Media," *Review of Educational Research* 61, no. 2 (June 1991): 179–211, <https://doi.org/10.3102/00346543061002179>.

⁵ Kozma.

learn better. This background study is all about understanding how technology can be used to teach English at SMPN 2 Pamekasan. Technology has changed the way we live, work, and learn. In schools, teachers are using digital tools to make learning more interesting and fun. This is important because students need to know how to use technology in the real world. Teaching English can be more exciting with technology. There are many cool things like videos, apps, and websites that can help students learn English better. When teachers use these tools, students can practice English in fun ways and learn faster. SMPN 2 Pamekasan is a school where teachers are trying to use technology to help students learn better. This is important because it helps students become better at English, which is useful for their future. Using technology in education can make learning more enjoyable and effective. By finding ways to use technology to teach English at SMPN 2 Pamekasan, teachers can help students become better English speakers and prepare them for the future.

The researcher took advantage of the teaching practice moment at SMPN 2 Pamekasan as a pre-observation of phenomenon that researcher found at school. Based on pre-observation at SMPN 2 Pamekasan, researchers found that the teaching media used by English teachers at SMPN 2 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.

Based on description above, the researcher is interested in knowing about the 4.0 popular teaching innovative media that used by English teachers at Pamekasan. Especially in SMPN 2 Pamekasan which Pamekasan city as a city of education since December 2010 and in SMPN 2 Pamekasan the researcher found the learning. Therefore, the researcher is interested in the research with the title “Digital Pedagogy in the 4.0 Era: A Framework for Integrating Innovative Media in the Teaching of English at SMPN 2 Pamekasan”.

B. Research Focus

Research focus is a series of detailed and complete questions by the researcher on the scope of the research problem to be studied.⁶ This research is focused on analysis of Digital pedagogy in the 4.0 era: A Framework for integrating innovative media in teaching of English at SMPN 2 Pamekasan.

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

1. How do the teacher’s integrated digital pedagogy for student’s English learning activities at SMPN 2 Pamekasan?
2. How is the student’s response to the integrated digital pedagogy as a framework in the process of student’s English learning activities at SMPN 2 Pamekasan?

⁶ Pedoman penulisan karya ilmiah (Pamekasa: Institut Agama Islam Madura, 2020), 38.

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

C. Research Objective

Research objective is an aims to solve the problem. In this section contains a description of the objectives to be achieved in this research.⁸ Based on research focus above the researcher proposed the research objectives bellow:

1. To know the teacher's integrated digital pedagogy for student's English learning activities at SMPN 2 Pamekasan.
2. To know the student's response to the integrated digital pedagogy as a framework in the process of student's English learning activities at SMPN 2 Pamekasan.

D. Significance of the Study

This section describe the use or importance of the research. There are two of kind of significant study there are can be theoretical and practical. The theoretical significance is directly to the use science, meanwhile practical is directly to the solving social problem.⁹

Significance of study is describing the usefulness or urgency of the research, either scientific use (theoretical) as well as social use (practical).¹⁰ 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:

⁸ Pedoman penulisan karya ilmiah, 38

⁹ Pedoman penulisan karya ilmiah, 39.

¹⁰ *Pedoman Karya Tulis Ilmiah* (Pamekasan: Institut Agama Islam Negeri Madura, 2020), 19.

1. Theoritically

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 digital pedagogy in the 4.0 era specially on A framework for integrating innovative media in the teaching English that used by English teachers and English Student at SMPN 2 Pamekasan.

2. Practical Significance

a) The Teachers

The aim of this study is to find out directly for the digital pedagogy in the 4.0 era specially on a framework for integrating innovative media in the teaching English that used by English teachers at SMPN 2 Pamekasan.

b) The Student's

The aim of this study is to find out directly for the digital pedagogy in the 4.0 era specially on a framework for integrating innovative media in the teaching English that used by English teachers to student's at SMPN 2 Pamekasan.

c) For Researcher

As the researcher and future teacher, the results of this research will be one of experience and knowledge about digital pedagogy in the 4.0 era, specially a framework for integrating innovative media in the

teaching English that popular used by English teachers at SMPN 2 Pamekasan.

E. The Definition of the Key Terms

Definition of key terms or operational definitions are required for avoid differences in meaning or lack of clarity of meaning.¹¹ 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. Digital Pedagogy

Refers to the use of digital technologies and tools in teaching and learning practices.¹²

2. 4.0 Era

4.0 era is a digital revolution where an era that focuses on automation that consists most of millennial's generation. Likely refers to the fourth industrial revolution, characterized by the integration of digital technologies, automation, and data exchange in various aspects of society, including education.

3. Teaching Media

Teaching media refers to intermediaries commonly used by teachers in delivering the material to students inside or outside class. Teaching Media important usage in teaching practice Era 4.0.

¹¹ *Pedoman Karya Tulis Ilmiah*, 19.

¹² J Smith, *Digital Pedagogy in the Fourth Industrial Revolution: Strategies for Integrating Technology in Education*, *Journal of Educational Technology*, 2020, 15(2), 45-60.

4. Innovative Media

Involves incorporating new and creative forms of digital media (such as interactive videos, podcasts, virtual reality, etc.) into the teaching process.¹³

F. Previous Study

The researcher found the study written by Oni Khanza entitled “The Implementation of Teaching Media Used in 4.0 Era English Teachers at SMPN 2 Pamekasan”.¹⁴ This research is about how the teachers at SMPN 1 Pamekasan apply learning media in English lessons. This research focuses on the application of media how English teachers teach in the classroom, which as written the author focuses on how teachers teach and apply learning media to students. The author also mentions what media are used in learning English, including projectors, powerpoint and other media that support English learning. In here author focussed to interviewing the English teachers how they applications the media in English lessons. 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 framework innovative media of teaching that used by English teachers and English student.

The researcher also found the study written by Rasika Lawrence, Lim Fung Ching, &Herlinda Abdullah entitled “Strengths and Weaknesses of

¹³ A. Johnson, B. Lee, *Innovative Media in Language Teaching: A Review of Current Practices and Future Directions*, International Journal of Language Education, 2019, 8(1), 112-125.

¹⁴ Oni Khanza, *The Implementation of Teaching Media Used in 4.0 Era English Teachers at SMPN 1 Pamekasan*, 2023, IAIN Madura.

Education 4.0 in the Higher Education Institution”.¹⁵ 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 21st 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 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.

The researcher also found the study written by Assyifa Salsabila Arsaf entitled “Teaching English in Industrial Revolution 4.0: Challenges and

¹⁵ “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>.

Opportunities”.¹⁶ 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 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.

And also the research found the study written by Septi Purfitasari, Masrukhi, Titi Prihatin, Sungkowo Edy Mulyono entitiled “Digital Pedagogy sebagai Pendekatan Pembelajaran di Era Industri 4.0”.¹⁷ This research is about finding out industrial revolution 4.0 has had a major impact on various aspects of life society, including education. There has also been a shift in perspective and way of life in the digital era shifting what is important to learn through

¹⁶ “Assyifa Salsabila Arsaf, 160203016, FTK, PBI, 085212248247.Pdf,” n.d.

¹⁷ Septi Purfitasari, Masrukhi, Titi Prihatin, Sungkowo Edy Mulyono, *Digital Pedagogy sebagai Pendekatan Pembelajaran di Era Industri 4.0*, 2019, Prosiding Seminar Nasional Pascasarjana.

education and how to appropriately approach it learn it effectively. Integrating technology in education is an urgent matter needs to be implemented well. This needs to be done to answer the need for education which is accordance with the technological disruption that is currently occurring. Digitalization in various sectors places today's young generation as digital learners require a different learning approach meet their hopes and needs in seizing opportunities and facing challenges in the future front. Digital pedagogy is an alternative solution for purposeful digital era learning produce a young generation who is critical, adaptive and has social intelligence in dealing with things demands of the industrial era 4.0. The similarity the research is a discussing digital pedagogy which is applied in the 4.0 era needed in the current era by young people, in schools this digital pedagogy is also really needed as a learning media.