

# CHAPTER I

## INTRODUCTION

### 1.1 Research Background

In this period of the 4.0 industrial revolution, all aspects have been combined with digital technology, including in the field of education. As stated by Lase (2019), in the 4.0 industrial revolution era that was signed by the increasing development of digital systems, technology, information, and communication, impacted various sectors, one of which is the education system. Therefore, one of the sectors that is intended to create human resources with 21<sup>st</sup> century skills is education. The development of the 21<sup>st</sup> century requires various skills to succeed in dealing with the increasingly complex problems that arose in life. The 21<sup>st</sup> century skills could be divided into four skills, namely critical thinking, communication, collaboration, and creativity. These skills are commonly known as 4C Skills, and the foundation to deliver those skills must be mastered referred to the curriculum. According to Taba (1962), the definition of curriculum briefly is a plan for learning. Curriculum includes all learning experiences, referring to a blueprint that contains learning objectives and evaluation of student achievement (Egan, 1979). Tyler (1949) in Stone (1985) also stated that curriculum refers to all learning experiences planned and directed by schools to assist students in achieving learning goals, which includes a series of subjects that contain subject matter to be studied, teaching methods to be used, and assessments to be used as tools for evaluating student learning outcomes. Currently, Indonesia has adopted the Merdeka curriculum, replacing the K-13.

In this era, all countries are required to be able to follow and keep pace with the times development to improve the existing education system. Besides that, knowledge and skills are the main focus that need to be developed in the current education system. According to Ainscow (2020), a good education system should not only expect students to adapt but must be based on their learning needs and related to the participation and learning goals achieved by the students. Education in the 4.0 industrial revolution era is something that facilitates the need for industrial revolution through the new curriculum regulation in the current situation. In early 2020, the Ministry of Education in Indonesia proposed a new policy with the aim to remove obstacles and create equal and meaningful learning. This new policy is called independent learning, or *Merdeka Belajar* in Indonesia. *Merdeka Belajar* as the part of *Merdeka Curriculum*, which is a new policy in learning that must be followed by every educational institution from the playgroup level towards education that is higher (Abidah et al. 2020; Baro'ah 2020, as cited in Ananda et al. 2023). The goals of this policy are to enhance Indonesia's quality of education, where the teachers are allowed to get the opportunities to choose, create, and design appropriate learning media for the students. By implementing this policy, students will get many opportunities to have meaningful learning experiences without being demanded by high standards of grades and achievements (Tiwikrama et al. 2021). The *Merdeka Curriculum* is relevant to be applied in the 21<sup>st</sup>-century skills, because it supports the 4C skills that are need to be developed in nowadays life.

In improving the quality of students' learning ability in this 4.0 revolution industrial era, there are three appropriate learning methods that must be applied,

namely problem-based learning, project-based learning, and discovery-based learning. Referring to Wartono et al. (2018), problem-based learning means a learning approach that can develop the ability of the students to solve complex real-world problems as learning media and have full responsibility for their learning. Second, project-based learning means a learning approach that provides students' involvement to have chances to collaborate in completing projects according to learning objectives (Smith and Dodds, 1997). The next approach that must be applied in this 4.0 era is discovery-based learning. Discovery-based learning means a learning approach that demands the students take a more active part in the process of learning through finding out and investigating on their own so that they will acquire new knowledge and remember it in the long term (Bruner, 2006).

Beside those three learning methods, the students' learning abilities also need to be considered. There are three kinds of students that are divided based on their ability to learn, namely slow learners, average learners, and fast learners. According to Tan et al. (2020), slow learners are students that are described as underachievers in their class when it is compared to their peers. Therefore, teachers need to support them by providing appropriate learning methods and learning materials. According to Ramos et al. (2021), average learners are students who learn not as fast as the fast learners nor as slow as the slow learners, but they are able to achieve the established learning competency. Despite, they still have adequate ability and strong interest to learn new things. The last is fast learners, which can be defined as students that are gifted with great performance in the learning process, which could be seen from their cognitive, particular

academic, creative thinking, leadership, artistic, and psychomotor aptitudes (Yıldırım & Akcayoglu, 2018). Students' different ability of learning required different learning methods and material. Thus, it was teachers' duty to provide appropriate learning material as well as appropriate learning methods.

According to Liando et al. (2021), teachers needed to provide innovative learning media and learning methods that suited the learning aptitudes and the average learners' characteristics without exception. Teachers could prepare teaching materials that are appropriate to the qualities and learning requirements of average learners, so they could develop their potential to the fullest. There were many previous studies that investigated the positive impact of developing supplementary materials for specific student criteria. Fauziah et al. (2021) have developed English supplementary material that focused on speaking skills, which found on communicative language instruction for the 8<sup>th</sup> level of MTs Putra Putri Lamongan. The development of this supplementary material was highly effective to be applied as teaching and learning media, especially in helping the students to acquire and enhance their speaking abilities quickly. On the other hand, according to Kusuma (2020), teachers stated that the main challenge lied in preparing and delivering supplementary material, wherein teachers were expected to exhibit greater creativity and innovation in designing and delivering the material that must be in accordance with the curriculum and learning objectives to establish a dynamic and engaging classroom environment.

The change in the *Kurikulum 2013* to *Merdeka* Curriculum made the teachers experienced difficulty in developing learning material for the students. Based on the preliminary observation, it was found that SMP Negeri 2 Ubud graded their

students with regular and honours classes. These regular and honours classes were graded based on students' ability in learning through a determination test. Regular class consisted of the students with lower average learners and slow learners. Besides, the honours class consisted of students with a higher level of learning ability, known as fast learners and higher average learners. The differences of students' learning ability in the learning process, especially for average learners, need specific material that could support them in the learning process and catch up with their peers which indicated as fast learners. Thus, supplementary material, besides helped the teachers to provide appropriate learning material for the students, could also assist the students in their learning process and potentially facilitate the accomplishment of the 4C skills (critical thinking, collaboration, communication, and creativity). In this period of the industrial revolution of 4.0, the researcher would create supplementary material using the proper learning methods for students who were indicated as average learners. This research focuses on developing supplementary material for VII grade average learners in honours class with problem-based learning, project-based learning, and discovery-learning methods. The researcher kindly hoped that the supplementary material could be used for teaching and enhancing the learning ability and quality of the students who were classified as average learners to achieve 21<sup>st</sup> century learning skills.

## **1.2 Problem Identification**

Referred to the preliminary observations, it was found that the VII grade English teacher at SMP Negeri 2 Ubud encountered several challenges. First, there were quite a number of students who have average learning abilities and

tend to face difficulties in catching up with their peers, which indicated as fast learners in the learning process where the teacher could not provide special assistance to them due to restriction of time. The teacher also needed to put 21<sup>st</sup> century learning into practice where the 4C Skills are necessary to be mastered by the students through problem-based learning, project-based learning, and discovery-based learning methods, which are in line with the implementation of *Merdeka* Curriculum. Teachers usually applied problem-based learning, for example, by using YouTube videos as learning media, and students were requested to pay attention and analysed the content of the videos. In addition, teachers also applied simple project-based learning, such as presentations in front of the class. According to the teacher, in order to perform project-based learning, it required quite a lot of time so that it was considered less effective. In addition, teachers also had not been able to apply discovery-based learning because this is something new for teachers. Second, the *Merdeka* Curriculum English syllabus advised teachers to be able to change up the teaching methods in order to facilitate various learning activities. The only activities provided by the teacher were the exercises taken from the textbook and worksheet provided, where the students were more often asked to do it individually, and there was a lack of communication and collaboration between them. This could not improve their 4C Skills as the demands of 21<sup>st</sup> century learning and the *Merdeka* Curriculum.

### **1.3 Limitation of The Study**

This research's main objective was to create supplementary material for VII grade average learners in honours class at SMP Negeri 2 Ubud in the first

semester that applied the *Merdeka* Curriculum that was based on problem-based learning, project-based learning, and discovery-based learning.

#### **1.4 Research Questions**

Referred to the background, the following were the research questions for this study:

1. How was the supplementary material for average learners at VII grade of honours class by using the 21<sup>st</sup> century learning methods developed?
2. How was the quality of the supplementary material for average learners in VII grade of honours class by using the 21<sup>st</sup> century learning methods in SMP Negeri 2 Ubud?

#### **1.5 Research Objectives**

The following were the research's objectives:

1. To develop supplementary material for average learners at VII grade of honours class based on problem-based learning, project-based learning, and discovery-based learning.
2. To acknowledge the quality of the supplementary material that was made for average learners in VII grade of honours class.

#### **1.6 Research Significance**

There were two expected significances that were classified as theoretical and practical. Both gave the following explanations.

### 1.6.1 Theoretical Significance

This research was intended to explore and broaden theories of supplementary material development that could become a source and reference for future research, especially for teaching students that applied 21<sup>st</sup> century learning through the application of the *Merdeka* Curriculum.

### 1.6.2 Practical Significance

#### 1. For Teachers

This research was intended to help and support the teachers in indicating and teaching the average learners and applied the 21<sup>st</sup> century teaching methods in the classroom.

#### 2. For Students

This research was intended to support the students that were indicated as average learners to catch up and accomplish the equal learning achievement as their mates with fast learning abilities. This research was also expected to assist the students in mastering the 4C Skills of 21<sup>st</sup> century learning.

#### 3. For Researchers

This research's result was expected to provide benefit as sources of data to carry out comparable studies on the development of supplementary materials at different grade levels.