

## CHAPTER 1

### INTRODUCTION

In this chapter, the following topics will be explained. This chapter contains the background of the study, identification of the problem, limitations and focus of the study, research questions consisting of three questions, aims of the research consisting of three aims, and the importance of the study theoretically and practically

#### 1.1 Background of research

The teaching module is a tool for implementing the learning process. This determines the results of students' abilities after learning. One of the results that can be seen is English language skills, based on the results of the EPI (English Proficiency Index) in 2022, Indonesia is ranked 81 out of 111 countries. In other words, the English learning process in Indonesia is still relatively bad. Therefore, it is necessary to design a learning process in a teaching module that is right for the quality of English language skills in Indonesia.

School administration is part of the duties of a teacher who is obliged to do it. Designing a learning process is a form of school administration that must be made by teachers to design learning activities in the classroom. A learning process is a form of school administration that is the responsibility of teachers, including lesson planning, recording student attendance, and managing learning activities to achieve effective educational goals. student attendance to achieve academic goals (Fitria, 2021, p. 135). In designing the learning process, teachers must use their energy and mind to do it. Therefore, when teachers carry out learning activities, they must have a fresh mind and sufficient energy.

This causes a workload for a teacher and causes the teacher to feel drained in mind and energy. If teachers do not feel fresh both in mind and energy caused to the increased workload, this will interfere with the quality of learning. School administration is one indication that teachers feel that this is the most draining aspect of the workload that comes from teaching itself and the quality of relationships experienced at school with students and their parents, fellow teachers, and school administration (Zydziumaite et al., 2020, p. 959). Therefore, the quality of effective learning is determined by how a teacher is because designing the learning process is also important in education.

The importance of designing the learning process in the teaching module as a teaching tool to achieve good results from learning. We need to pay attention to the learning process so that it is not neglected and produces poor quality. As happened in one of the schools in Cirebon Regency which needed to design an appropriate English learning process because of the low quality of English in the school. The proper teaching modules that support learning activities are one of them. Teaching modules result in the success of learning (Atiqah Nurul Asri et al., 2022) . Therefore, designing the learning process in the English lesson teaching module must be as good as possible to improve the quality of English language skills.

Many previous studies have discussed the learning process. I clustered several studies. Related to the learning process that has been designed, there are several studies that are similar to this study but differ in several aspects. In the learning process, there are many learning styles that can be applied to learning activities in the classroom. Learning style is also an aspect that makes the design adapt to students as written by Susilo & Sustianingsih (2021) , Masni, Hutabarat & Budiyo (2022) , Munna and Kalam (2021a). This can determine the results of a learning process taken by students. However, this study does not consider that learning styles must be adjusted to students' conditions and characteristics.

Several previous studies have made students the subject of research. Such as research conducted by Ustun & Tracey (2021) and Rodriguez (2022). Students have more mature natures and characteristics, so with this method students are better able to follow what is designed by educators, regardless of the learning process. It would be better for this research to be aimed at high-school students because students at this level have unique natures and characteristics that make it a challenge for a teacher to design a learning process. In general, the use of technology for learning activities is indeed good. Such as research conducted by Palkova & Sapozhnikova (2021), Weng & Chiu (2023), Imron, Asri, and Suryadi (2022), Purwani & Dewi (2021), Jacob & Darney (2021). However, learning activities that use technology are not so good because not all educational institutions have the same technology. This is an obstacle to learning activities.

In the world of education, educators can also use the role of technology in it, either to find references, create learning activities, or summarize learning outcomes. The use of AI can be used by educators as a tool to assist in designing learning activities. In recent years, AI has played an increasing role in changing the educational landscape, providing innovative solutions to improve the efficiency, accessibility, and effectiveness of learning (Arisanti et al., 2024, p. 5200). Over time, technological advances have continued to develop and can help human work become more time and energy-efficient. Therefore, with advanced technology, educators can use the role of technology in education.

The role of technology can now be used in the world of education by educators. One of the uses of AI that can help educators is to find several components that can be added to learning activities. AI could help with finding components to add to lesson plans to fully address standards and expectations, and to meet each student's unique requirements (Kritandani et al., 2024). This is why it has been said that AI can help in the field of education. As educators, we must be able to adjust to the needs of the students we teach.

The use of AI is considered to help ease one's workload. The burden of teachers/educators in handling school administrative tasks such as designing lesson plans, can be alleviated using AI technology (Fitria, 2021, p. 140). Therefore, it is hoped that this research can help the work of teachers to ease their work so that when the teacher enters the classroom, the teacher is fresh and has enough energy. With this, learning in the classroom become more effective.

This research is aimed at English teachers in high schools because high school teachers need to improve students' English skills effectively. In this case, it is necessary to have a learning process that is appropriate and right for the students. Implementing a learning process design must be in accordance with the needs of English students in Senior high school. Therefore, between the subject and the purpose of this study are very relevant.

## **1.2 Identification of the phenomenon**

In designing learning activities in the classroom, here are some phenomena that must be considered to design and implement an appropriate learning process:

- 1) Teachers' overwork in administration
- 2) Many kinds of AI
- 3) Lack of interaction between teachers and students

Based on the above problems, this research has focused on aspects of learning methods that make students feel bored when learning. The selection of materials that are less interesting makes them less excited to learn. By identifying these problems, the process of designing learning activities can be focused on creating a more inclusive, engaging, and relevant learning experience for all students.

### **1.3 The limitations and focus of study**

This study is about teachers who teach high school students. Students who are at the high school level are very vulnerable to boredom and in this phase they are in a period of identity formation, one of which is knowing their own abilities. Teachers who teach at the high school level need to adjust between learning methods and students. Therefore, teachers who teach at the senior high school level need to design learning processes to be appropriate and relevant to their students.

This research was conducted at a school in Cirebon district. The development that is currently being pursued by the school is the reason for this research. To find out the efforts made by teachers to redesign the learning process to improve the results with good quality is what attracts my attention to conduct this research.

### **1.4 Research Question**

Based on gaps in previous research and the limitations and focus of the research above, the research questions can be formulated as follows:

- 1) How can English teachers use Poe.AI to design the learning process for writing skills?
- 2) What is the English teacher's perception of using Poe.AI in designing the learning process for writing skills?
- 3) What is the quality of the teaching module for writing skills assisted by Poe.AI?

### **1.5 Aims of Research**

From the research questions above, the objectives of this research are as follows:

- 1) Analyze the use of Poe.AI to help teachers design the learning process for writing skills.

- 2) Assess the quality of the teaching module for writing skills assisted by Poe.AI
- 3) Exploring English teachers' perceptions on the use of Poe.AI

## **1.6 Significance of research**

Due to the importance of designing learning processes to produce good student abilities, this research can be used as a reference for teachers in designing learning processes that suit student needs. By using qualitative in this research, it is easy to understand the explanation discussed by the researcher. Designing the learning process that will be applied can determine the results of students' abilities. As said by Yunus et al (2021, p. 96) meanwhile, skills are the abilities of putting the knowledge in practical mode, such as creatively creating a learning condition, and dedicatedly improving the language skills of diverse students. Moreover, teachers should promote various and integrated teaching procedures that are appropriate to the content and objectives, as well as continuously supervise students' performance.

This research is very relevant because it makes English teachers who are at the high school level as the subject of research where these teachers become teachers for children in adolescence who are recognizing themselves and knowing their abilities. Therefore, in this study there are aspects that can solve problems and improve the implementation of a teacher to design a learning process

## **1.7 Theoretical Foundation**

The increasing usefulness of technology today can be utilized as best as possible by everyone, including teachers. Teachers need new ideas, innovation, and improved knowledge and teaching skills. This includes the teacher's task of designing the learning process. Teachers can use AI to help them in their work so that they can achieve maximum results and be even more innovative. Therefore, this theoretical basis will discuss several points

such as Poe.AI, the nature of English teachers, writing skills, and designing the learning process.

### 1.7.1 Poe.AI

In general, in the world of education, the use of AI can allow AI to have great potential and benefits. AI capabilities at this level can help analyze and detect student needs. The utilization and use of AI technology in the world of education is able to provide potential and benefits, especially in improving the quality of learning (Awad & Oueida, 2024). Thus, the integration of technology with AI can contribute to improving the quality of learning in the classroom. This provides an opportunity for more productive and effective teaching for students.

Poe.AI is one of the many artificial intelligences that are now widely used by humans to simplify and shorten work. The Poe application optimizes content recommendations, user interfaces, and overall interaction design by continuously learning from user engagement (Wang, 2024, p. 38). Therefore, Poe.AI is designed to allow its users to interact with an AI in a Chatbot or conversational interface. Multimodal interactions such as text, file input, image input, and voice input, contained in Poe.AI can increase the flexibility and usability of the platform according to user usability based on the desired context.

As a platform for providing information services from various sources, Poe.AI can be said to be almost similar to other AI platforms such as Chat GPT, Gemini, and others. The advantages of Poe.AI are that it provides more features with reference sources that are integrated with other AI platforms such as Chat GPT, GPT-4.0, Gemini, Claude-instant, Claude-2-100k, StableDiffusionXL, and Assistant (McKay, n.d.). In other words, Poe.AI collects other Chatbots as reference sources that allow users to access multiple AIs in one place. With the integration found in Poe.AI, it can provide broader explanations, understandings, and references. In

addition, the use of extensive language models applied by Poe.AI is intended to enable the understanding and production of natural language.

#### **1.7.1.1 How to use Poe.AI**

As a new user, we have to understand the usage of Poe. AI. There are many features contained in Poe.AI. Therefore, to be able to use Poe.AI as needed, we must know the steps to use Poe.AI. The following are the steps for using Poe.AI according to Dave (2024)

- 1) Visit the website of Poe.AI. First, go to the official Poe website. Sign in/register using your Google account, email, or Apple account.
- 2) Select your AI bot, select the AI bot to use. You can choose from the available AI bots according to your needs.
- 3) Enter the prompt, click on the search prompt box and type in the prompt to give the AI a command such as “Give me English speaking skills teaching materials for grade 4 elementary school.”
- 4) View the result, look at the results of the prompts you have created. double-check the results of the AI bot whether it gives the results that you intended and wanted. If not, you can change the prompt or clarify the prompt text to be more detailed.
- 5) Interact with the content. You can interact with the created content by deleting, sharing, liking, copying, or disliking it. Just click on the three horizontal dots (...) and select the option you need.

#### **1.7.2 The Nature of the English Teacher**

Beyond knowledge and skills, teaching is a complex and multidimensional profession that demands a strong sense of responsibility toward students. Analyzing what it means to be a teacher in general—the duties, characteristics, and professional standards specific to the teaching profession essential to understanding the nature of English teachers. The discussion then focuses on what distinguishes English teachers from other educators after understanding the general concept of a teacher. Because they help students improve their language proficiency, communication skills, and

cultural awareness, English teachers play a unique role. Therefore, the general concept of a teacher and the specific characteristics of English teachers in an educational environment will be the two main topics in this section.

### **1.7.2.1 English Teacher**

Learning activities in the classroom are an important task for a teacher. A teacher as a facilitator, motivator, or mentor in Education is responsible for the learning activities and self-development of a student. Teachers, as educators, play an essential role in ensuring that the classroom operates smoothly (S. A. Putri et al., 2024, p. 168). Therefore, a teacher must be able to operate or guide learning activities in the classroom well. Learning activities are designed before entering the classroom by preparing everything for students, such as learning activities, materials, assessments, and others.

Creating a comfortable learning environment for students and using interesting learning methods are the duties of a teacher. Creating a good learning environment can improve students' abilities and mastery of the material. Teachers must do their best to create an engaging and positive learning environment and employ effective and interesting teaching methods, this will ensure that the learners' engagement with English will be optimal, and their motivation will be high, which will, in turn, allow them to master most language skills from an early age (Almesaar, 2022, p. 478). Thus, the interestingness of a learning method created by a teacher will determine the quality of a student's learning outcomes.

### **1.7.2.2 English Teacher**

English teachers are educators who teach English lessons to students such as teaching vocabulary, grammar, writing, reading, and speaking in English. In addition, teachers are also expected to provide direction and help students in practicing the material that has been given. According to Maijala's research (2020, p. 460) the students expected the

teacher to guide them to use the target language in interactions with their peers, this meant that the teacher should create natural situations in which the students can use the language with their peers. Therefore, with the help of guidance from a teacher can affect the target achievement in learning. Therefore, teachers are also referred to as facilitators and motivators for students.

As an educator who becomes a facilitator, of course, he has quality knowledge and understanding. The knowledge and understanding of an English teacher must continue to be improved to be able to provide material information and learning adjustments in it. Therefore, EFL teachers are advised to revise and renew their professional knowledge to improve their teaching practice and learning outcomes (Moahmmed Alwafi & Alkubaidi, 2024, p. 2). Therefore, the need to improve the quality and understanding of an English teacher affects the quality of learning outcomes of a student. With good quality knowledge and understanding, a teacher can be responsible for his duties as an educator.

### 1.7.3 Writing Skill

In learning a language, writing is one of the skills that must be possessed. With writing skills, a language learner can improve his language skills. “To help enhance the students in developing language ability, students must learn that writing is an English language skill” (Purnamasari et al., 2021, p. 101). Thus, it can be said that writing skill is an important skill for a language learner. This is because when someone writes, they must pay attention to several aspects of writing. According to Vacalares et al. (2023, p. 1193) important aspects that must be considered in writing, such as vocabulary, grammar, sentence structure, and punctuation. Thus, students can write well and can pour their ideas, imagination, or feelings into writing.

- 1) Vocabulary, vocabulary is material that discusses a word. It is clear that in writing skills, vocabulary skills are needed to improve the ability and creativity of writing. Creativity in writing students must have high

utilization of vocabulary (Tenaja & Oco, 2023, p. 9). Therefore, teachers must teach vocabulary for writing skills to students.

- 2) Grammar, in writing skills, is one of the important aspects. The use of proper and good grammar can help clearly convey what is conveyed in writing. Strong grammar abilities are essential for rational thinking and precise expression in writing (Phieanchang, 2024, p. 224). Thus, grammar skills are intended to clarify and not confuse the reader from the writing.
- 3) Sentence structure, sentence structure is an important aspect that must be considered in writing. Sentence structure is one of the examples of paragraph writing rules for students studying writing subjects (Christiana Surya Wati, 2022). Thus, writing must be able to master and vary sentence structure in writing to be more interesting. In building a sentence, understanding and application are influenced by the character or nature of the sentence structure. There are several types of sentences according to Yu (2021, p. 5): Simple sentence, Compound sentence, and Complex sentence
- 4) Punctuation, punctuation is used in constructing sentences and clarifying the meaning to the reader. In language, of course, it is necessary to pay attention to punctuation. Punctuation, being one part of the language system in processing contextual directions, is an important mechanism in writing (Salomo, 2023, p. 102). Therefore, punctuation is considered important in writing skills.

#### **1.7.4 Designing Learning Process**

The steps or stages in a learning process taken by a student to gain knowledge and understanding are called learning processes. Design learning is a learning plan arrangement for teaching and learning activities in the classroom, with a series of stages carried out for the development of teaching and learning activities (Olney et al., 2024, p. 46). The quality of the learning process has an important influence on education, especially the

results of education. Data mining for education information processing uses facts generated from internet databases to enhance the educational learning paradigm for educational purposes when the learning process is computerized (Ali, 2022, p. 847). Thus, designing or designing an organized learning process can improve learning. The designed learning process must be carried out by a teacher who has the ability or basic teaching skills.

Designing a learning process is something that a teacher must do before starting a lesson or before entering the classroom. Teacher preparation in designing a learning process requires several things to support the learning process. In terms of resources, the research found that teachers need to use various resources in the learning process that may include computers, books, smartboards, equipment, artefacts, whiteboards, special speakers, games, computer programs, etc (Munna & Kalam, 2021, p. 2) . In other words, the aspects needed to create a learning process must also come from various sources. Therefore, teachers must conduct research on sources for the learning process. There are several components in the learning process according to Widhiasti et al. (2022) “Learning objectives, Teaching materials, Instructional Media, and Learning Strategies”.

In addition, in designing the learning process teachers must also determine the learning model that will be used. This learning model is used as a guide in the learning process in the classroom later. In planning the learning process, using a pattern as a guide is a learning model (Irviana, 2020, p. 95). Therefore, the learning model is important in designing the learning process because it can systematically organize a lesson in order to achieve learning objectives and learning outcomes well. There are several kinds of learning models according to Irviana`s which are explained in his research as follows.

#### **1.7.4.1 ASSURE model**

The ASSURE model is a learning model designed by Heinrich and Molenda in 1999 (Pappas, 2023). This learning model design incorporates

the use of technology and media to enhance the learning environment experience. The definition of ASSURE consists of the following words:

- 1) Analyze learners, analyzing and identifying the learners' characteristics, such as the learners' abilities and needs to be able to follow the learning.
- 2) State standards and objectives, teachers must determine the standards and objectives in learning after the classroom learning. Teachers can use the SMART method to determine this which must be specific, measurable, achievable, relevant, and time-bound. With this, teachers can determine what results will be obtained by students after learning.
- 3) Select strategies, technology, media, and materials. Selecting methods, technology, media, and materials that will be used in learning to be more active and effective.
- 4) Utilization of technology, media, and materials, using and utilizing appropriate technology, media, and materials to achieve the learning objectives and knowledge that students will acquire. Therefore, technology and media must be checked for fluency in later use in the classroom.
- 5) Require learner participation, student participation in learning is required for the successful learning of this learning model.
- 6) Evaluate and revise, after the learning is completed. Teachers must evaluate the learning that has been done and revise if there are deficiencies to improve so that learning gets better.

Using excessive technology is not good for learning because it may not be effective. Therefore, the use of technology and media in the ASSURE model should be balanced to create a comfortable learning environment as well as the effectiveness of the learning itself. Integration in education must be appropriate and systematic in using technology for effective and relevant learning according to students' needs (Adedapo & Opoola, 2021, p. 177). In this case, teachers are expected to design an

effective, efficient, and relevant learning process using the ASSURE model as a learning model. Teachers must be able to determine the approach plan in learning that uses technology.

The use of the ASSURE learning model that links education with technology can be used by teachers in performing their duties as educators. In this model, it is listed to determine the learning that suits the needs of the student. In other words, the ASSURE Model enables teachers to teach according to the needs of students and also ensures that students are engaged in learning activities and integrate learning and technology (Zahran, 2023, p. 948). Therefore, the ASSURE model is one of the learning models that can be used in the classroom by teachers. In addition, the ASSURE model is one of the learning models that can be evaluated effectively based on the instructional of the ASSURE model as stated by Altin (2021, p. 204) evaluating based on the instructional of the ASSURE model can be done effectively.

#### **1.7.4.2 ADDIE Model**

The next learning design model is the ADDIE model, which prepares an effective learning design. ADDIE is a well-known learning development model used by educators in designing a complete process for designing, developing, and presenting learning content (Vulpen, n.d.). ADDIE consists of 5 phases, which are briefly explained according to Vulpen's article as follows:

- 1) Analyze: analyzing in the ADDIE model is the first thing to do to identify the problem to be solved. By identifying the problem, teachers can determine effective teaching methods and organize student needs.
- 2) Design, the design phase is to explain and describe all the information that has been obtained in the analysis phase to develop learning designs and learning objectives. This phase also determines the learning method such as online, offline or blended and also determines

the duration, mode of assessment, and feedback on a lesson, as well as determining the evaluation method for the learning design.

- 3) Develop, the development phase is the phase where, after determining the learning objectives and learning methods, it's time to bring the design to life using prototypes as a guide, and also in this phase, we can use the necessary tools such as technology or media platforms that have been determined in the design phase.
- 4) Implementation, in the implementation phase focuses on executing the design that has been made, and in this phase, the teacher can dig up data to be used as material for evaluation in the next phase.
- 5) Evaluation, the last phase is the evaluation phase, by highlights each stage from analysis, design, development, and implementation to find shortcomings and advantages as a reference for improvement to be prepared before the next lesson.

In applying the ADDIE model in learning, teachers must know how to do it. The stages in the ADDIE model can be summarized or combined from 5 stages into 3 stages. This will make it easier and shorter for teachers when they want to use the ADDIE model. The three stages that can be combined have been explained by (Safaruddin et al., 2023, p. 517) which are as follows.

- 1) In the analysis and design stage, make the microlearning modeling stage for learning content creation.
- 2) In the development phase, content development is carried out from the previous stage
- 3) The last stage is the implementation and evaluation stage, which is used in implementing microlearning and also evaluating afterwards.

The ADDIE model is designed to produce learning content, create an effective learning environment, and meet the needs of students. With this, learning can be carried out well in accordance with the objectives and

learning outcomes. In other words, the ADDIE model, provides how students will gain knowledge after learning. Learning is not only how the teacher delivers lessons but also how the teacher assists students to gain knowledge, attitudes, personality, and confidence (Adeoye et al., 2024, p. 204). Therefore, with the analysis, design, and development in the ADDIE model is expected to meet the needs of students and help students gain knowledge and attitudes and confidence.

#### **1.7.4.3 Jerols E. Kemp Model**

The Jerols E. Kemp model develops a purposeful learning model. This model helps teachers by directing teachers to determine learning objectives. The Jerols E. Kemp model instructs learning design developers to assess student characteristics and determine appropriate learning objectives (Irviana, 2020, p. 100) The next step is to determine the learning process strategies and learning resources that will be used. The evaluation results are used to evaluate and revise materials and learning strategies. The main components of the Jerol E Kemp model, according to Giles (2013) as follows:

- 1) Instructional problem, identifying instructional problems in order to determine the objectives of the program to be designed.
- 2) Learners Characteristics, analyze the characteristics and needs of learners to determine the characteristics that can influence and guide learning.
- 3) Task Analysis, at this stage, use it to find out the required learning steps that will be included in the instructions that can help students achieve the learning objectives.
- 4) Instructional Objectives, identify instructional and learning objectives. Determine the learning objectives by adjusting what the students will do and what they will gain.

- 5) Content Sequencing, effective learning results from organizing content in a logical sequence. Good sequencing can help learners acquire and understand the lesson.
- 6) Instructional Strategies, in this stage, strategies are designed that creatively and effectively present information or knowledge and support the learner to achieve the learning objectives that have been set.
- 7) Designing the Message, the message in question is the pattern of words or images used as a means of conveying information by the teacher to the learner. Therefore, instructional messages are designed and planned appropriately and decide how they will be delivered.
- 8) Instructional Delivery, selecting learning material resources to support the instructional process.
- 9) Evaluation Instruments, improving the evaluation instruments that will be used after learning to assess and evaluate learners' abilities towards the learning objectives, either through summative or formative means.

The Kemp model is systematic and disciplined. In addition, when teachers want to run the Kemp model, there must be a continuity between each step. Planning, design, development, or assessment are implemented and evaluated continuously between one and the other to support effective design in the Kemp model (Birgili, 2019, p. 82). Therefore, teachers must be able to connect each step of the Kemp model.

#### **1.7.5 English teacher designs learning process using Poe.AI**

In using a chatbot like Poe.AI, the user must be able to give the right instructions to get results. The instructions given are written in the form of a prompt placed in a textbox. The instructions given will result in an answer from Poe.AI. If the results are not appropriate, the user can change or add more specific instructions. Below are six steps to guide you when you

designing the learning process by (Milkova, n.d.) by collaborating the use of Poe.AI as a learning tool.

- 1) Highlights learning objectives, the first step is to determine the learning objectives such as what topics will be studied, what students will learn, what students will understand and what abilities students will acquire after the learning ends.
- 2) Develop the introduction, stimulate interest and encourage thinking by developing a creative introduction to the topic through engaging approaches such as telling personal stories, and anecdotes, asking leading questions, etc.
- 3) Planning specific learning activities, a teacher plans learning activities in the classroom during class hours by adjusting the learning topic. This learning process includes how the classroom activities will be, what students will do in the classroom, what students need to be able to understand the lesson. This is where a teacher can use Poe.AI to help find what is needed in designing the learning process by entering the prompt in the text box clearly.
- 4) Plan to check for comprehension, When the learning activity is about to end and the material from the topic has been implemented. Teachers must ensure students' ownership after learning at that meeting by asking questions related to the material that has been delivered. The role of Poe.AI can be used by using AI bots in the form of assistants or ChatGpt to help teachers make questions.
- 5) Develop conclusions and previews, review the material covered in class by summarizing the main points of the lesson. You can do this in a number of ways: You can state the main points yourself ("Today we talked about..."), you can ask students to help you summarize them, or you can even ask all students to write down on a piece of paper what they think are the main points of the lesson.

- 6) Create a timeline realistically, instructors also agree that they often need to adjust their lesson plans during class depending on what the students need. A list of ten learning objectives is unrealistic, so narrow your list down to two or three key concepts, ideas, or skills that you want students to learn.

By following the steps above, teachers in school-based Islamic Boarding Schools can effectively utilize Poe.AI to design an interesting and appropriate learning process for students. The use of this technology is expected to improve the quality of teaching and student engagement in learning English.

## 1.8 Previous study

In this section, we have focused on one of the clusters relevant to this research, which is designing learning processes for learning activities. The purpose of discussing these previous studies is to guide the researcher in completing this research.

In the learning process, there are many aspects contained in it. The aspects contained in it must be considered, not only paying attention to one aspect such as the research conducted by Purwani & Dewi (2021) which only focused its research on the material. If it only focuses on material alone but do not pay attention to other aspects such as learning methods, then the learning process cannot run effectively and efficiently. This is because the material is information that is conveyed but the way to convey it is not considered, then there is a possibility of difficulty in conveying the material.

Research in terms of learning process design should not be carried out over a very long period of time. Such as research conducted by Masni, Hutabarat & Budiyo (2022) for 8 months. The learning process design is a determinant of student learning outcomes. If student learning outcomes are poor, then the teacher must design an appropriate learning process to be able to produce good quality students. Therefore, research should be able to be

carried out in a period of time that is as efficient and effective as possible so that teachers can design the right learning process as soon as possible.

The results of a good study can be used for the long term. Research that focuses on short-term results does not consider its impact, such as research conducted by Munna and Kalam (2021). Moreover, research that discusses a learning method, the research must be able to be used or used as a reference in the long term. When research produces a long-term focus, it can be reused at a later time to become a basis for something such as a learning method.

### 1.9 Frame of Thought

Learning can run effectively because of two things, namely teachers and learning process design. Teachers as facilitators and mentors in the classroom must be fully responsible for all learning activities. English teachers must be able to apply learning plans that have been designed such as materials, learning methods, time allocation. These two things cannot be separated which in realizing good learning. In other cases, when designing a learning process can be assisted by an AI, namely Poe.AI which can be used by teachers. By using AI can speed up and make it easier for teachers when designing a learning process. In addition, finding the right source for teaching materials or research methods can be obtained by using AI.

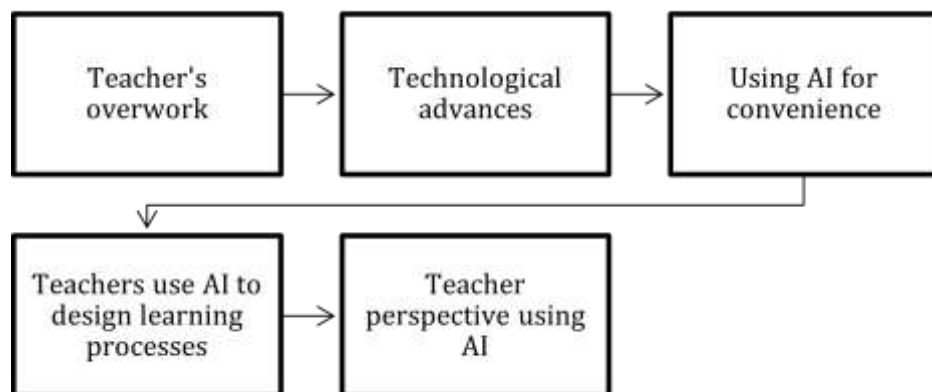


Figure 1..9 Frame of thought

## 1.10 Research Method

This chapter presents the research method used to explore the utilization of Poe.AI for English teachers in designing the learning process in a pesantren-based high school. It describes the research design, participants, instruments, data collection, and data analysis procedures employed in this study. The purpose of this chapter is to provide a clear explanation of how the research was conducted to ensure the validity and reliability of the findings. By applying a qualitative approach, this study aims to gain an in-depth understanding of how Poe.AI assists teachers in designing learning activities, as well as to explore their experiences and perceptions during the process. Each component of the research method is elaborated in detail to give a comprehensive overview of the systematic steps taken in this study.

### 1.10.1 Research design and steps of the research

This study uses qualitative data collection to describe the results. This research design focuses on the perception of a teachers using AI to design a learning process. I have supported my research idea about using AI to design a learning process because to describe or interpret non-numerical data from someone's experience, as stated by Ugwu, Chnyere, and Eze (2023, p. 20) Qualitative research focuses on collecting and interpreting non-numerical data, such as text, audio, or video, to gain deeper insight into ideas, opinions, or experiences. Therefore, the reason I use qualitative research is to find out the use of AI in helping teachers design a learning process and to find out the teacher's experience in this regard. This study adapts the case study steps taken from Khan (2022) , there are the steps:

- 1) Selecting the Case
- 2) Defining the Research Question
- 3) Data Collection
- 4) Data Analysis

- 5) Interpretation.
- 6) Reporting
- 7) Validity and Reliability

However, the author will adapt the stages, which are as follows:

- 1) Selecting the case, selecting a specific case related to the research question
- 2) Defining the research question, formulate and ensure the clarity of the research questions to guide the study effectively.
- 3) Data collection, this study involves offering Poe AI to teachers as a tool for designing learning processes and providing them with guidance on how to effectively use the AI. After using Poe AI to create a learning process, the teachers' perceptions are collected to understand their experiences and views. The data collection methods employed in this research include a literature review, interviews, and a scoring rubric to evaluate the quality of the learning designs produced with Poe AI
- 4) Data analysis, the data collected in this study consists of teachers' perceptions of their experiences after using Poe AI. To gain a comprehensive understanding, the data is analyzed through three main sources: literature, interviews, and scoring rubrics. The overall data analysis is conducted using thematic analysis to identify key themes and patterns related to teachers' experiences in utilizing Poe AI for designing learning processes.
- 5) Interpretation, the analysis process aims to gain a deeper understanding of the data collected by carefully examining teachers' perceptions and experiences. Furthermore, the data is critically reviewed to determine the most relevant and significant information needed to address the research objectives effectively.
- 6) Reporting, the findings are presented in a detailed case study report that outlines the context, methodology, data analysis, key themes, and

conclusions, and may also include direct quotes to support and illustrate the results more clearly.

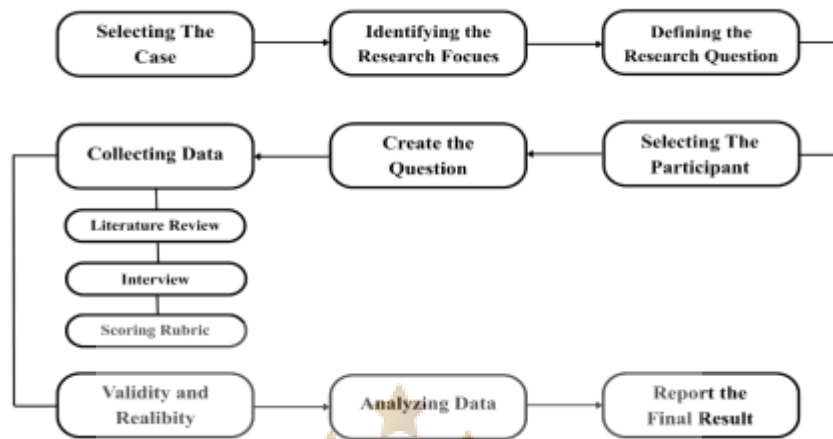


Figure 1.10 1 Step of research

### 1.10.2 Sources and types of data

In this study, the data used for this study were obtained from high school English teachers in the Cirebon district. English teaching in high school is focused on improving students' competence in using language to achieve communication goals in various contexts, both oral and written with higher complexity than the material studied at the previous level, using the same approach, namely a text-based approach. Therefore, this study is aimed at high school English teachers in Cirebon district. The type of data that has been reviewed by the researcher is a result of exploration or perception from research participants. Therefore, qualitative studies can be conducted to gain insight into experiences, behaviors, beliefs, attitudes, and motivations (Oranga & Matere, 2023, p. 2) . This study aims to describe the results of the analysis of a teacher in designing the learning process. Thus, the alignment between data and research methods that are considered appropriate is expected to produce research data.

### **1.10.3 Data collection techniques and instruments**

There are many data collection techniques in a study. This research in collecting data uses two ways, namely literature review, questionnaire, and an interview of an English teacher in a secondary school.

#### **1.10.3.1 Literature review**

I have made choices in data collection techniques. The use of literature review is aimed at collecting and classifying sources of papers such as books, articles, research journals and so on that have been published by adjusting the criteria of this research, namely the use of Poe.AI in helping teachers design learning processes. Theoretically, by synthesizing findings and perceptions from several sets of studies, the literature review was used to answer the research questions (Snyder, 2023, p. 551). Thus, the results of collecting relevant sources can be used to answer questions with explanations from different perceptions of each author which has been summarized to compile a theoretical foundation using existing concepts and theories.

The steps in conducting this research adapt from Nashruddin & Mustaqimah (2020) which also adapt from Efron & Ravid (2019, p. vi):

- 1) Select a topic and design a research question, start the research by defining a research topic and then formulate a research question to focus the center of the research. Topics are better with narrow and focused things.(Ramdhani et al., 2014, p. 50). Therefore, this study focused on researching an AI to help teachers.
- 2) Locating or finding out about and organizing research sources, searching or finding sources or literature can be found in the form of files or webs that have been published. Finding article sources can be assisted by using keywords. In finding article titles for specific topics, you can use keywords (Ramdhani et al., 2014, p. 50). The keywords used in searching for articles that are relevant to the research, research question can help to determine the research question. To determine a keyword, researchers can use a research

- question to help determine it (Nashruddin & Mustaqimah, 2020, p. 83).
- 3) Selecting, analyzing, and keeping notes of sources, researchers select and analyze the sources that have been obtained. This process requires a literature review list. The process of analyzing the literature requires readers and researchers to compile a review reading list (Nashruddin & Mustaqimah, 2020, p. 84). In addition, the criteria used must be appropriate to obtain specific review outcomes as stated by Nashruddin & Mustaqimah (2020) Establishing criteria for literature selection may be useful for the specific review discussion problem targeted.
  - 4) Evaluating research articles, evaluate the sources that have been obtained to determine the category of each source. Evaluating the literature review should be done critically. A critical review of the literature that has been addressed in the field of research (Nashruddin & Mustaqimah, 2020, p. 84). In this research, the literature review leads to the use of Poe.AI in helping teachers design learning processes.
  - 5) Structuring and organizing the literature review, structuring and organizing the results of the literature review are presented in a structured is presented for readers to know the conclusions that have been analyzed through the literature review. The organization of the review should guide the reader through a narrative text to justify the need for the research or literature review and demonstrate your expertise in the subject matter (Karunarathna et al., 2024, p. 7). In this research, it is organized in the form of finding and discussion.
  - 6) Putting it all together, a good and comprehensive literature review is done critically in its processes (Nashruddin & Mustaqimah, 2020, p. 85). Therefore, in this study, all the process results were gathered together to be checked for consistency through a text.

### 1.10.3.2 Interview

Inner technique data acquisition must be customized with the purpose of the data to be taken. The author chose the technique of data collection with interviews with the teachers who were the sample research. An interview required to obtain an explanation from teacher experience that has been used as research data. Interviews are very useful for obtaining the story behind the experience of participants. *Interviews are very useful for getting the story behind the experience participant* (Specialists, 2020, p. 16) . Thus, the interview has been done in depth to get meaningful answers or broader data.

### 1.10.3.3 Scoring rubric

A scoring rubric is used to ensure validity and reliability in obtaining data. The scoring rubric is made according to the framework and concept of the material to be able to achieve content validity to validate qualitatively. The construction of the rubric is made according to the framework and concept of the material to be able to achieve content validity to validate qualitatively (Permana & Widodo, 2022, p. 36). Therefore, data collection using the scoring rubric is done systematically to ensure the validity and reliability of the data. Validity and reliability as described by (Jonsson & Svingby, 2007, p. 133):

- 1) Validity, data validity as a measuring tool used on instruments on a matter to be studied. Measurements are made to what extent and are measured on an instrument. In validity, measurement uses authentic assessment by exploring first. The concept of validity should also be explored in relation to more authentic forms of assessment. Therefore, data validity in qualitative research can be used in a design learning process by determining authentic values to be measured in a data collection.
- 2) Reliability, reliability is an instrument that can be used repeatedly. reliability is used to measure the consistency and stability of a measurement after validity. in addition, reliability is used to ensure the reliability of the measurement even if it is used on other

documents. reliability is used to assess complex performance from the reliability of the measurement to the validity of the data. In other words, reliability is used after validity to ensure data even if it is used repeatedly. Therefore, validity and reliability can be used in qualitative.

#### **1.10.4 Data analysis techniques**

I have only mentioned the analysis for data collected using the data collection technique and instrument chosen in the previous section. I have chosen a data analysis technique for my research. The data analysis technique that I use to analyze the data that has been obtained through data collection. There are two types of technical analysis used in this study. Interview data and literature reviews were analyzed using thematic analysis. Meanwhile, scoring rubric data was assessed by a teacher and also evaluated using AI.

##### **1.10.4.1 Thematic analysis**

In this study, researchers used thematic analysis to analyze interview data and literature reviews that collaboratively reinforced the data. Interview analysis obtained data from interview respondents and conceptualized it through keyword selection, coding, theme development, conceptualization of codes, and conceptualization development. Researchers used interviews for thematic analysis. Interviews, focus groups, or other data sources such as documents or images can be used for thematic analysis (Jowsey et al., 2021, p. 473). Meanwhile, literature reviews are used to reinforce data with relevant theories. Each core element of the literature and interviews is combined and harmonized, and the combination of interviews and literature reviews is classified to help researchers identify similarities and differences with academic articles and published expert opinions (Haddara et al., 2021, p. 565). Therefore, thematic analysis uses interviews and literature analysis. The thematic analysis steps used are adopted from Naeem et al., (2023, p. 2) as follows:

- 1) Transcription, data recognition, and selection of quotations, the initial step in the thematic analysis process involves transcribing the data and familiarizing oneself with it. The researcher thoroughly examines the content and identifies themes and important sections. After that, the researcher looks for relevant quotations to reinforce the data. In this study, the researcher used a literature review.
- 2) Selection of keywords, researchers check the data from interviews, focus groups, or visual content. Researchers analyze terms or visual elements to mark them as keywords. From the data collected, keywords are used to describe the respondents' perceptions.
- 3) Coding, the third step is coding, which involves searching for short phrases or words that are used as codes in data that contain messages, meanings, or themes. This step helps researchers identify elements related to the research question. Keywords that have been analyzed previously play a role at this stage as a basis for analysis and help transform raw data into meaningful and processable units.
- 4) Theme development, theme development involves grouping codes to be transformed into meaningful clusters so that they can be identified as patterns and relationships in reviewing research questions. At this stage, we move from detailed code analysis and interpretation categories to obtain themes. Recurring elements are used as structured signs of meaning to connect research questions with data found in the themes.
- 5) Conceptualization through interpretation of keywords, codes, and themes. At this stage, conceptualization involves understanding and defining concepts derived from the data. Researchers identify patterns and refine them into understandings that are consistent with their research. The quality of understanding is evaluated based on clarity, accuracy, reliability, and contribution to theory and practice.
- 6) Development of conceptual models, the final step in this analysis is the development of a conceptual model. This stage involves creating

unique symbols from the data and is guided by existing theory. This model is useful in helping researchers find answers to their research questions. This step is the culmination of all the findings and insights obtained and generated from the data.

#### **1.10.4.2 Measuring the quality of the module**

To analyze the rubric scoring assessment in the learning module, the researchers chose two different approaches. The first assessment was conducted by a teacher who was the deputy principal in charge of the curriculum. This teacher is responsible for all aspects of learning at the school, including the module. The second assessment involved the use of AI tools such as Poe.AI and ChatGPT. The researcher utilized AI to evaluate and assess the rubric scoring results of the learning module, as AI is considered capable of evaluation due to its ability to synthesize theories from various sources. AI can summarize and evaluate documents based on specific criteria (Codone, 2024). Therefore, the researcher chose AI as the assessor to evaluate the scoring rubric that was already in the form of a document created by the respondents.

Finally, the researchers analyzed the teaching module using a humanistic approach. The scoring rubric was carried out by the vice principal for curriculum affairs, reviewers 1, and reviewers 2. This helped the researchers evaluate the teaching module created by the teacher with the help of Poe.AI. Thus, the researchers were able to obtain data for analysis.