CHAPTER III

RESEARCH METHOD

The present chapter provides an overview of the research approach, encompassing the research design, data collection method, instrumentation, data analysis, and the systematic execution of the study. Every aspect pertaining to the research methodology will be examined during this stage.

A. Research Design

This study will use qualitative approach with systematic literature review design. Qualitative methodology involves the use of non-numerical data, such as words and images, to understand and interpret social phenomena (Creswell, 2014; Denzin & Lincoln, 2017). A systematic literature review is a research design that involves searching for, evaluating, and synthesizing research studies that have been published on a specific topic (Petticrew & Roberts, 2006). It is a rigorous and comprehensive approach to reviewing the existing research literature on a topic, and is often used to inform policy or practice.

In a qualitative systematic literature review, the researcher will typically start by defining a clear research question and identifying relevant search terms. They will then conduct a comprehensive search of the literature using databases, search engines, and other sources to locate studies that address the research question. The researcher will then evaluate the quality and relevance of the studies found, and use them to synthesize a set of findings and conclusions about the topic.

Qualitative systematic literature reviews can be an effective way to synthesize and interpret complex data, and to identify gaps in the existing research literature (Petticrew & Roberts, 2006). They can also provide a

detailed and nuanced understanding of a topic, and can be useful for informing policy or practice in a particular area.

The systematic literature review procedures outlined by Olaf Zawacki-Ritcher in his 2020 publication have served as a valuable roadmap for researchers seeking to conduct comprehensive and methodologically sound reviews. Zawacki-Ritcher's approach emphasizes the critical importance of a structured, step-by-step process in conducting systematic literature reviews. His methodology typically involves defining research questions, developing inclusion and exclusion criteria, conducting systematic searches across various databases, meticulously screening and selecting relevant studies and employing rigorous data extraction. (Zawacki-Richter et al., 2020, p. 6).
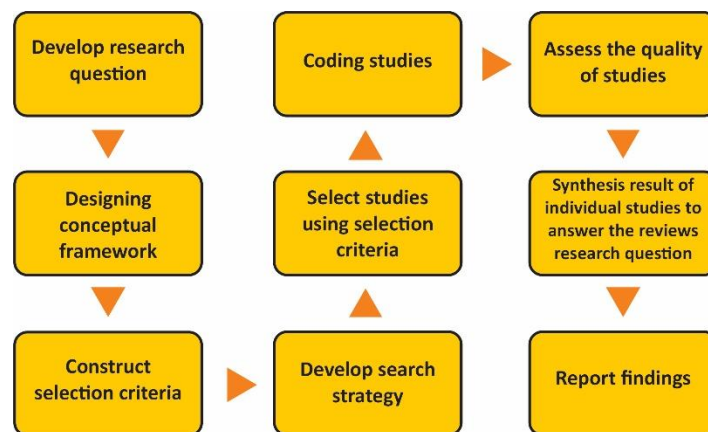
Figure 1. Systematic literature review process

1. **Research questions and conceptual framework**

Research questions were made by considering needs of the selected topic. These question will be used as the foundation in conducting the review. A framework called PICOC has been used to formulate the re-search question. The acronym PICOC stands for Population and their problem, Intervention or Issue, Comparative Intervention, Outcomes or themes and Context (Booth et al., 2016). Accordingly, both the scope of the research and the different parts of the research question are identified using this framework (Pollock & Berge, 2018, p. 142). Formulating the research question in this manner facilitates identification of the important keywords

through the process of translating the research question into its relevant search concepts which are described as follows:

a. Participants: The specific group of people or entities being studied.

b. Intervention: The specific intervention or exposure being investigated.

c. Comparison: The reference group for comparison (if applicable).

d. Outcome: The expected or measured outcomes of the intervention.

e. Context: The specific context or setting in which the study takes place.

Research questions of this research are:

RQ1 *How is the implementation of hybrid learning in EFL instruction carried out in various educational institutions?*

Population: Educational institutions (e.g., schools, universities) implementing hybrid learning in EFL instruction.

Intervention: Implementation of hybrid learning in EFL instruction.

Comparison: Not specified in the question.

Outcome: The methods and strategies used for implementing hybrid learning.

Context: Various educational institutions.

RQ2 *What are the benefits and challenges of implementing hybrid learning in EFL instruction?*

Population: Those involved in or affected by the implementation of hybrid learning in EFL instruction (e.g., teachers, students, administrators).

Intervention: Implementation of hybrid learning in EFL instruction.

Comparison: The benefits and challenges of implementing hybrid learning.

Outcome: Identification of benefits and challenges.

Context: The context of EFL instruction.

RQ3 *What is the impact of hybrid learning on students' English language skills in the context of EFL?*

Population: Students in the context of EFL instruction.

Intervention: Exposure to hybrid learning.

Comparison: The state of students' English language skills before the intervention.

Outcome: The impact on students' English language skills.

Context: The context of EFL instruction.

RQ4 *What strategies that can enhance the effectiveness of implementing hybrid learning in EFL instruction?*

Population: Those involved in the implementation of hybrid learning in EFL instruction (e.g., teachers, administrators).

Intervention: Strategies to enhance the effectiveness of implementing hybrid learning.

Comparison: Not specified in the question.

Outcome: Identification of effective strategies.

Context: The context of EFL instruction.

2. Construct of selection criteria

The research study choices are determined by the criteria for inclusion and exclusion. Hence, the inclusion and exclusion criteria are outlined as follows:

The inclusion criteria

a. Language : Only studies published in English will be considered to facilitate comprehension and analysis.

b. Publication Type : Peer-reviewed articles from reputable journals or conference proceedings will be included to ensure the reliability and validity of the findings.

c. Research Focus : The studies selected must primarily examine hybrid learning approaches in the specific context of EFL.

d. Population : The target population should consist of EFL learners and educators of different age groups and educational levels, including primary, secondary, and tertiary students.

e. Year : Only studies investigating hybrid learning in EFL context which were published in 2019-2023.

f. Outcome Measures : Studies that measure the impact of hybrid learning on EFL proficiency, learner engagement, teacher pedagogy, or other relevant outcomes in the context of EFL.

The exclusion criteria

a. The copy or duplicate of the same research.

b. Articles that do not discussed about hybrid learning on EFL context.

c. Articles written in other languages except English.

d. Chapter of books and conceptual articles will not be discussed. This study will be focusing on published journals and research articles.

3. **Developing search strategy**

The fundamental objective of a systematic review is to pinpoint as many primary studies as possible that pertain to the research questions at hand. To fulfill this objective, a search strategy depicted in the figure is formulated and implemented across various electronic databases. The search results are significantly shaped by the choice of database and the keywords employed in the searches. In order to gauge the quantity of relevant articles, an initial search is executed. This preliminary search constitutes a trial run on Publish or Perish, utilizing the keyword "Hybrid learning on EFL." Subsequently, the search is refined by enclosing the keyword within quotation marks, and the search is conducted once more. The precise identification of pertinent articles is carried out in accordance with the structured search strategy.
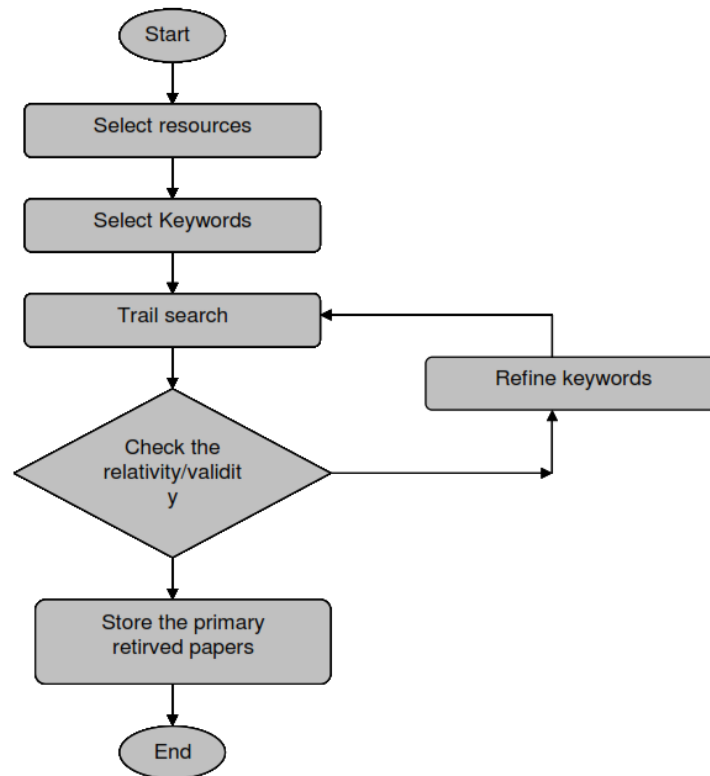
Figure 2. Search strategy (adapted from Unterkalmsteiner et al., 2012)

For the identification of papers, the method depicted in Figure 2 is followed. From the research questions (RQs) are derived the search terms. The search term is composed of the population AND intervention in the context (EFL) terms listed in Table 1.

Table 1. Search keywords

Population	Intervention
"education* institution"	"hybrid learning implementation"
"hybrid learning implementation"	"benefits and challenges"
"EFL language skills"	"impacts of hybrid learning"
	"strategies"

The choice of Publish or Perish (PoP) software as the primary search engine for literature review was deliberate and well-considered. PoP offers

a user-friendly and efficient interface for researchers to conduct systematic literature reviews. It's particularly advantageous due to its ability to aggregate data from multiple databases, which ensures a comprehensive and extensive search for scholarly materials.

This study relied on a combination of renowned databases, including Scopus, Crossref, and Google Scholar. The selection of these databases was strategic, as each database provides a unique set of resources and publications, allowing for a thorough exploration of the existing literature on the research topic. The use of PoP in conjunction with these databases enabled us to access a wide spectrum of academic materials, ensuring a robust foundation for our research methodology.

4. **Coding the studies**

Data coding is a systematic way to organize a set of data into smaller analytical units through the creation of categories and concepts derived from the data. Coding the studies are conducted by creating variable elements that can represent the essential components of research articles, or what are called quality and relevance variables (Hadi et al., 2019). The quality and relevance variables in this research are the objectives, research methods, research samples, and research results.

5. **Assessing the quality of the studies**

To evaluate the validity of the included studies, an assessment of study quality is performed. As Staples and Niazi have described, it is extremely difficult to determine to what extent the authors have addressed the validity threats. In fact, the evaluation of quality is based on research paper structure criteria (Staples & Niazi, 2008). The structure of the potential research paper on a primary study will be evaluated: Introduction, Research Method, Results, and Conclusion. In each potential study, the following questions are investigated.

Table 2. Assessment criteria of studies quality

Structure	Evaluation Criteria
Introduction	Does the research paper's introduction section provide an overview of hybrid learning in EFL?
Research Method	Does the paper clearly describe the research methodology used?
Results	Does the research paper define the study results? Are the results helpful to find the RQ (search questions)?
Conclusion	Does the paper report both the positive and negative findings properly? Does it also report the limitations imposed on the research?

Consequently, the author's evaluation of the studies based on keywords, abstracts, titles, and the relevance of the content to the study context, as well as the publication organization of the research paper (i.e. IEEE), were also considered.

6. **Synthesizing result of studies**

Data synthesis entails collecting and summarizing the results of the primary studies chosen (Xiao & Watson, 2019). Due to the varied character of the primary study's data, the extracted data undergo qualitative synthesis. The results of the primary studies are documented in accordance with the review protocol's outlined RQs.

B. **Research Instrument**

Research instrument refers to tools that is selected by researcher to collect the data Creswell, J. W. 2012. For qualitative research, a researcher acts as the main instrument to assemble required data for a research (Ary et al., 2010). Besides, other requirements to do systematic literature review is

integrating tools to get data from various or certain source systematically. That or those tools will help researcher in finding any literature needed, getting intended information from literature, making connection among literature, analyzing and building conclusion from the data (Xiao & Watson, 2019).

In this research, researcher will used collaboration among some software to run those processes. *Publish or Perish* (POP) will be used to find literatures and get information needed relating with topic of English Language Learning from Google Scholar, Crossref, PubMed, Semantic Scholar, and Scopus. Covidence.org, a web based review manager will be used to short and include most suitable literatures and visualize them into PRISMA chart.

C. Data Collection Method

The data needed in this research are all kind of literature relates with English Language Learning. The topic is including any branch of English Language, for example language skills, components and acquisition. The data could source from research article, journal and other related data. Researcher will only use documentation as the main data collection in this research due to the research design that is literature review, therefore, all information needed in this research could be fulfilled by only using documentation method.

In the rigorous pursuit of conducting a systematic literature review, the researcher has steadfastly adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. PRISMA is a well-established framework specifically designed to ensure the transparency and methodological rigor in the process of conducting systematic reviews (Page et al., 2021). In this research, PRISMA has played a pivotal role in guiding every step of the review, from the initial stages of literature searching to the meticulous filtering process of relevant journals.

D. Data Analysis

This systematic review of the literature employs the rigorous analysis process outlined by Zawacki-Richter et al. (2020) in order to synthesize robust evidence related to the research focus. Following comprehensive literature searches and screening for study relevance and eligibility, initial analysis procedures as follows:

1. Data extraction

   Key data points and findings were extracted from the final set of eligible studies using a standardized data extraction form. Extracting pertinent details facilitates structured analysis and synthesis by capturing components most relevant to the purpose of the review in a consistent manner across all literature. For this study, the data extraction process concentrated on specific details linked to the thematic and descriptive analysis techniques planned in subsequent review steps.

2. Thematic analysis

   The extracted data underwent qualitative thematic analysis, a technique which involves identifying dominant themes related to the research questions across included studies. Emergent topics were coded in the data, and then grouped into coherent categories and concepts that could be systematically examined and compared. This enabled granular insights regarding patterns, relationships, convergence/divergence across the literature.

3. Descriptive analysis

   Descriptive analysis was also conducted, quantitatively summarizing overall trends, publication timeframes, methodologies, and sample characteristics represented in the reviewed literature (Zawacki-Richter et al., 2020). This high-level summary analysis contextualized the scope of available research. Combined with the thematic insights, it enriched understanding of what and how the existing pool of literature has examined topics related to this review's focus.