

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

This study used systematic literature review research. Literature reviews can be based on all sorts of information found in scientific journals, books, academic dissertations, electronic bibliographic databases and the rest of the Internet. Systematic literature review or often abbreviated as SLR is called systematic literature review is a method of literature review that identifies, evaluates, and interprets all findings on a research topic, to answer a research question that has been previously determined (Kitchenham & Charters, 2007, p. 2). The SLR method is carried out systematically by following possible stages and protocols.

A lot of researchers said that a systematic review can be conducted even without any studies. There is no limit on number of studies for a systematic review. It depends on the research question.

B. Object of The Research

The data were selected in specialized articles that potentially included research in EFL for second/middle school, differentiated instruction in mixed ability classroom, and reading comprehension.

C. Data

There are several examples that author has identify the RQ, search strategy and inclusion criteria and data extraction tittle of electronic journals, thesis and

another researchers from 2010 until 2020 that will the researcher use for the data. The data were selected in specialized articles that potentially included research in EFL for secondary school, differentiated instruction, and reading comprehension. The databases and articles are selected that focused in field of education as follows: Directory of Open Access Journals (DOAJ), Science direct, JSTOR, Proquest, SAGE, and ISJD.

D. Technique of Data Collection

The researcher conducted digital library research and documentation to find a data related to the differentiated instruction in improving reading comprehension. Also read extensively and intensively the electronical journals, articles, document and another researches from 2010 and onward to collect the data.

Table 3.1						
<i>The table that presents the database results of the search conducted between September 2020 to March 2021</i>						
Search Key	Directory of Open Access Journals (DOAJ)	Science Direct	JSTOR	Proquest	SAGE	ISJD
1	130	142.594	4.112	115.657	115.657	1
2	8	24.216	2.528	170.533	24.798	0
3	11	28.251	1.526	17.476	508	0
4	0	0	0	0	0	0
Researcher Extraction	n = 0	n = 13	n = 0	n = 3	n = 1	n = 0
Screening and Selecting tool based on PICOT	n = 0	n = 2	n = 0	n = 1	n = 1	n = 0

The researcher used www.scimagojr.com to rank the journals that have to measure the level of ranking and how good the journal used is so that the journal used is the best journal with minimum Q4 and maximum Q1. The SCImago Journal & Country Rank is a publicly available portal that includes the journals and country scientific indicators developed from the information contained in the Scopus® database (Elsevier B.V.). These indicators can be used to assess and analyze scientific domains. Journals can be compared or analysed separately. Country rankings may also be compared or analysed separately. Journals can be grouped by subject area (27 major thematic areas), subject category (313 specific subject categories) or by country. Citation data is drawn from over 34,100 titles from more than 5,000 international publishers and country performance metrics from 239 countries worldwide. The SJCR allows you also to embed significant journal metrics into your web as a clickable image widget.

E. Data Analysis

In this research, the writer uses the technique of data analysis which was conducted by (Jessica, 2016) as follows :

1. Identifying the review question and writing the protocol: This step refers to the process of identifying and defining the questions that can be answered with the available information in the literature about a topic. The author uses PICO to Identifying the RQ and writing protocol. The author identifying and characterizing the inquiries that can be replied with the accessible data in the writing about a topic. In like manner, in light of the PICOT the accompanying table describes the selected research question of

this review, the key parts and its examination through the PICO table. Based on Gough D., Oliver, S., & Thomas they said that the following table describes the selected research question of this review, the key components and its analysis through the PICOT table.

Table 3.2 <i>Picot Table adapted from Gough, Oliver and Thimas, 2012.</i>	
Research Question	Does differentiated instruction have an impact on reading comprehension for Secondary School?
Population	EFL Middle/Secondary School
Intervention	Differentiated instruction improving EFL reading comprehension
Comparator	Differentiated instruction in EFL compared with each other or without differentiated instruction
Outcome	Any positive impact in EFL reading Comprehension for middle/secondary school
Study Design	Journal, articles, books, thesis, dissertations published between 2010 until 2020

2. Developing a search strategy and applying inclusion criteria: This step *refers* to researching the method by which the research identifies evidence to be included in the review. Namely, in this step the researcher would identify all of the available evidence relevant to the review question. The author starts the review, based on the questions and objectives of the literature, the researcher selected the sources, and established the search inclusion and exclusion criteria. Then, extracted the data and summarized the results to answer the question. The author identify relevant materials in order to be reviewed for this systematic literature review, the search in this

study was limited to articles, journal, thesis and dissertation published between 2010 – 2020 which following the main objectives of this systematic review that the owner decide before, the search sets the following terms :

1. “Differentiated Instruction”
2. “The Differentiated Instruction in Reading” OR “Differentiated Instruction in Reading Comprehension” AND “Secondary School”.
3. “ The Differentiated Instruction for Secondary School” OR The Differentiated Instruction for Middle School”.
4. “The Differentiated Instrucion in Reading Comprehension in Mixed Ability Classroom” AND” Secondary School”

The search was conducted by using quotation marks (“”) to limit the terms that were introduced. Boland, A., Cherry, G., & Dickson, R., (2014) in Jessica (2016) suggested combining the key terms by using “AND”, “OR” and “NOT”.

The author used the Mendeley application to sort the data so that the author can be more organized in storing and sorting the data that has been stored. Then, the author looked for data in all the databases listed above by using a number of keywords that had been determined by the author previously.

Finally, the articles, journal, etc for this thesis needed to address research on differentiated instruction, EFL reading comprehension for

secondary school in the context of teaching EFL. Articles and journals that would not potentially refer to teaching English as a foreign language were immediately discarded. Other criteria of inclusion required articles with qualitative, quantitative, or mixed methods. Besides, articles to be included in the review needed to focus only on secondary school.

The author has decided the inclusion and exclusion criteria as follows :

Table 3.3		
<i>Criteria adapted from Boland, A., Cherry, G., & Dickson, R., (2014) in Jessica (2016)</i>		
Population	Include EFL for secondary school	Exclude Upper or lower grade/level
Interventions	Differentiated instruction + Reading Comprehension	Differentiated only and Reading only
Comparators	Differentiated instruction in EFL Reading Compherension	Differentiated only and Reading only
Outcomes	Positive impact and Privillage of differentiated instruction in Reading comprehension	Impact in another topic
Study Design	Journal, articles, thesis, dissertation or systematic review from 2010 to 2020	Journal, articles, thesis, dissertation or systematic review from before 2010
Overall Decision	INCLUDED	EXCLUDED

3. Data extraction is the step is once the articles for the review have been revised through the inclusion and exclusion criteria, the researcher, in this step, identifies the data from each paper and summarizes these data.

4. Analysis and synthesis: Researcher analyzes the result of data extraction.
5. Writing up and editing : Researcher, in this step, summarizes the information and the evidence obtained from the data extraction narratively.