

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction:

The present chapter is devoted to the description of the methodology given in the present study. In this chapter, the discussion will be in detail about the variables, population, sample, tool used for collecting the data, steps for tool construction, the procedure of the data collection, and statistical techniques used for the given study.

3.2 Research Design:

The research design is done for the purpose of the following conditions:

- Collection and analyzing the data in a manner that aims to merge it in a proper manner.
- It is a decision-making process as the plan of action is prepared by the investigator before taking over any study.
- It is an arrangement of the conditions for collecting and analyzing data in a well-organized manner.
- It is a conceptual framework within which the research is conducted and it constitutes the blueprint for the collection, measurement and analyzing data in a meaningful and structured way.
- It enables the investigator to save a great deal of time, resources and labour.

Qualitative Research Design had been used in the present study to understand the awareness and attitudes of teachers towards artificial intelligence (AI) in teacher education.

3.3 Research Method:

The research method is a format through which the investigator is aware of how to proceed with the research problem and arrive at the result. It includes the entire

process that is involved in the research part from the initial process of planning, execution, drawing interpretations and promulgating the results.

In this study, we aimed to question if a relationship exists between teachers' readiness and belief in the relevance of teaching AI and various variables and test whether these variables predict their intention to introduce AI in schools, and then produce a idea that explains and predicts the relations between teachers' readiness and various variables.

The present study had been conducted using survey method. To achieve the objectives of this research, qualitative data was collected. The data was collected through offline mode wherein a structured questionnaire was created through MS Word.

3.4 Population:

Data collection is essentially an important part of the research process as only on the basis of data the analysis and interpretation is done which ultimately makes a researcher able to reach out to the result and conclusion of the study. For the data collection process, the investigator needs to take the sample from the population. The process of obtaining information about the entire population by examining only a part of it is referred to as sampling. In the present study, the population comprises teachers of various B.Ed colleges such as Crescent B.Ed. College, Malabar B.Ed. Training College, PKM B.Ed. College from Kannur district of Kerala.

3.5 Sample:

The sample size of the study is of 100 teachers from various B.Ed colleges of Kannur district.

3.6 Sampling

Purposive random sampling was used for conducting this study.

3.7 Tool Used:

The advantages and importance of research are totally dependent on the relevance of the tool which extracts information from the sample population. The tool should be relevant, reliable and valid. The tool for the present research was the Questionnaire developed in the MS Word by the researcher to identify the attitude and awareness of teachers towards AI in teacher education.

1.8 Data Collection Procedure:

For data collection, the investigator went to selected colleges and met the Principals for permission. First the investigator explained the purpose. The Principal gave the permission to conduct the study. After getting the permission, the investigator met the teachers and established a connection with them. Data was collected from teachers working at various B.Ed. Colleges of the Kannur district using the Questionnaire developed in the MS Word and print outs were taken. Samples were requested to answer each statement freely without hesitation and ensured confidentiality of their responses.

Before data collection, information was shared to all the samples about the study and its purpose. The respondents were requested to give honest responses. The respondents were also assured that the data provided by them will be kept entirely confidential and will be used for research purposes only. The investigator tried her level best to make the process of data collection easy, convenient, and stress-free for teachers.

The collected data were sorted and grouped according to the objectives. They were counted and distributed according to the item. The percentage of strongly agree, agree, neutral, disagree and strongly disagree were calculated. Based on the numerical percentage, it is represented in graphical form (pie chart). Finally, each objective were interpreted and came to the conclusion.