

CHAPTER III

RESEARCH METHOD

This chapter discuss the description of research method that includes research design, population, research instrument, data collection, and data analysis.

A. Research Design

This research design used is quantitative method with correlational research. Correlational research is one of quantitative method that measure between two or more variable that using correlational statistic. This is suitable design to measure the pre-service English teacher perception on TPACK⁴⁴. ICT in ELT is related with TPACK that should be mastered by pre-service English teacher. To find out it, there are several components of TPACK that can be surveyed as knowledge of pre-service English teacher on ICT such as Content Knowledge (CK), Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK), Technological Knowledge (TK), Technological Content Knowledge (TCK), Technological Pedagogical Knowledge (TPK), and Technological Pedagogical Content Knowledge (TPACK). The researcher also measure pre-service English teachers' technostress with surveyed the components of technostress such as techno overhead, techno invasion, techno complexity, techno insecurity, and techno uncertainty.

B. Population and Sample

The population of this research is the pre-service English teacher of English Department of IAIN Kediri. In this study program there are 165 pre-service English teachers who took part in teaching internships, there were 83 pre-service English teachers who filled out two questionnaires regarding their perceptions on TPACK and technostress online.

C. Research Instruments

In taking the data of this research, the researcher uses two kinds of close-ended questionnaire instruments. The researcher obtained the instrument by

lecturers". *Contemporary Educational Technology*. Vol. 12. No. 2. (2023). Pp 1-15. <https://doi.org/10.30935/cedtech/12921>

⁴⁴ Latief, M.A. "*Research Method on Language Learning An Introduction 6th Ed*". (2017). Malang: Universitas Negeri Malang.

adapting it from the journal article from Tseng in 2014 that write about developing instrument for pre-service English teacher. The researcher adapted from that journal because it is suitable questionnaire to know the perception of pre-service English teacher. Then, the researcher modified questionnaire by article from Kusuma in 2021 that write about TPACK programs for pre-service English teachers in ICT competence development programs⁴⁵.

1. Questionnaire for pre-service English teacher perception on TPACK

There are 35 statements of close-ended questionnaire. The researcher has modified statement as the instrument adapted from Tseng in 2014⁴⁶. For more details, the researcher has divided the close-ended questionnaire into many groups. Here the blueprint for the close-ended questionnaire.

Table 3.1.
Blueprint of Close-Ended Questionnaire of Pre-Service English Teacher Perception on TPACK

No.	Dimension	Number of Item
1.	Technological Knowledge	1, 2, 3, 4, 5
2.	Pedagogical Knowledge	6, 7, 8, 9, 10
3.	Content Knowledge	11, 12, 13, 14, 15
4.	Technological Pedagogical Knowledge	16, 17, 18, 19, 20
5.	Technological Content Knowledge	21, 22, 23, 24, 25
6.	Pedagogical Content Knowledge	26, 27, 28, 29, 30
7.	Technological Pedagogical Content Knowledge	31, 32, 33, 34, 35

Here the scale of questionnaire

Table 3.2.
Scale of TPACK Questionnaire

Scale	Dimension
4	Strongly Agree
3	Agree
2	Disagree
1	Strongly Disagree

⁴⁵ Kusuma, I Putu Indra. "TPACK-Related Programs for Pre-Service English Teachers: An In-Depth Analysis on Efforts and Issues of ICT Integration". *Cakrawala Pendidikan*. Vol. 40. No. 1. (2021). Pp. 183-195. Doi: 10.2183/cp.v40i1.28820.

⁴⁶ Tseng, Jun-Jie. "Developing an instrument for assessing technological pedagogical content knowledge as perceived by EFL students, Computer Assisted Language Learning". (2014). DOI: 10.1080/09588221.2014.941369.

2. Questionnaire for measure pre-service English teacher technostress

To measure pre-service English teacher in technostress, the researcher use the instrument for itself. The researcher was adopted the instrument from Muslimin, Nukminatien, Ivone in 2023 as evaluation in their technostress based on evaluation sheet from pre-service English teacher technostress for measured⁴⁷

Table 3.3.

Blueprint of Close-Ended Questionnaire of Pre-Service English Teacher Technostress

Survey constructs	Number of Item
Techno overhead	1, 2, 3, 4.
Techno invasion	5, 6, 7, 8.
Techno complexity	9, 10, 11, 12.
Techno insecurity	13, 14, 15, 16.
Techno uncertainty	17, 18, 19, 20.

Here the table of scale questionnaires

Table 3.4.

Scale of Technostress Questionnaire

Scale	Dimension
1	Strongly Agree
2	Agree
3	Disagree
4	Strongly Disagree

To understand the TPACK and technostress levels, the average score obtained from the TPACK, and the technostress questionnaire is converted by leveling as shown in the following table:

Table 3.5.

TPACK and Technostress Categories

TPACK Scores	Categories
4.21 - 5.00	Very High
3.41 - 4.20	High
2.61 - 3.40	Moderate
1.81 - 2.60	Low
1.00 - 1.80	Very Low

⁴⁷ Muslimin, Afif Ikhwanul, Nur Mukminatien, Francisca Maria Ivone, "TPACK-SAMR digital literacy competence, technostress, and teaching performance: Correlational study among EFL lecturers", Contemporary Educational Technology. Vol. 12. No. 2. (2023). Pp 1-15. <https://doi.org/10.30935/cedtech/12921>

D. Data Collection

In this research, the researcher use close-ended questionnaire collect the data. This data collection type is suitable for this research because to get the pre-service English teachers' perception on TPACK and measure their technostress. That's are related with TPACK and technostress especially in English Language Teaching (ELT). In data collection, the researcher took survey through Google Form. The survey was TPACK components such as Technological Knowledge (TK), Pedagogical Knowledge (PK), Content Knowledge (CK), Technological Pedagogical Knowledge (TPK), Technological Content Knowledge (TCK), Pedagogical Content Knowledge (PCK) and Technological Pedagogical Content Knowledge (TPACK). For technostress, the researcher survey some technostress components such as techno overhead, techno invasion, techno complexity, techno insecurity, techno uncertainty. After that, the data will be measured by Microsoft Excel and SPSS 22 to find the Pearson correlation between pre-service English teachers' perception on TPACK and their technostress.

E. Data Analysis

After the researcher collect the data, the data analysis will be conducted by organizing the collected data systematically. The data will classify and analyze into many groups based on components of TPACK and technostress through Microsoft Excel. Here the steps to analyze data⁴⁸. First, the researcher will report the participants that fill the questionnaire and do not fill questionnaire about perception on TPACK and technostress. Second, the researcher will determine the bias response by discussed method. Third, the researcher give descriptive analysis with show the mean, score, validity, reliability, data percentage of TPACK and technostress, normality test, linearity test, standard deviation, and Pearson correlation for pre-service English teachers' perception on TPACK and their technostress. Fourth, the researcher identify the instrument using statistic procedures. The last steps, the researcher analyze the data and interpret the results

⁴⁸ Creswell, John W., J. David Creswell, "*Research Design Qualitative, Quantitative, and Mixed Method Approaches Fifth Edition*", SAGE Publication: United States of America, (2018).

from the statistical test. To measure the correlation of pre-service English teacher perception on TPACK and their technostress, the researcher use formula as follow:

Pearson Product Moment

$$R = r^2 \times 100\%$$

R = coefficient determination

r = coefficient correlation