UNIT 04

Research Questions, Objectives & Hypotheses

Three closely related elements, three different jobs

4.1 Research questions

Research questions are the specific questions a study seeks to answer. They transform a general research problem into clear and investigable questions. For a study on digital feedback in EFL writing, possible questions include:

- How do first-year EFL students perceive the use of digital feedback in writing instruction?
- What types of digital feedback do students find most useful?
- How do students use digital feedback when revising their written work?

4.2 Types of research questions

Type	Purpose	Example
Descriptive	Describes a phenomenon.	What are EFL students' attitudes towards peer feedback?
Exploratory	Investigates an underexplored issue.	How do EFL teachers integrate AI tools into writing instruction?
Comparative	Compares two or more groups or conditions.	Is there a difference between students receiving peer feedback and those receiving teacher feedback?
Relational	Examines relationships between variables.	What is the relationship between learner autonomy and academic achievement?
Explanatory	Investigates why or how something occurs.	How does formative assessment influence students' engagement?

4.3 Research objectives

Objectives describe what the researcher intends to achieve. They should be directly connected to the research questions, and commonly begin with action verbs:

To investigate · To explore · To examine · To identify · To analyze · To compare · To evaluate · To determine

Research Question	Corresponding Objective
How do students perceive digital feedback?	To explore students' perceptions of digital feedback.
What types of feedback do students find useful?	To identify the types of digital feedback students find useful.
How do students use feedback during revision?	To examine how students use digital feedback when revising their written work.

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4.4 Research hypotheses

A research hypothesis is a tentative, testable statement predicting a possible relationship, difference, or effect. Hypotheses are particularly relevant to quantitative and experimental research.

RESEARCH QUESTION

Does the use of digital feedback improve EFL students' writing performance?

ALTERNATIVE HYPOTHESIS (H1)

Students who receive digital feedback will demonstrate greater improvement in writing performance than students who receive traditional feedback.

NULL HYPOTHESIS (H0)

There will be no statistically significant difference in writing performance between students receiving digital feedback and those receiving traditional feedback.

4.5 Do all studies need hypotheses?

No. This is an important distinction. The choice depends on the research design and purpose.

Study type	Typically uses
Exploratory studies	Research questions
Qualitative studies	Research questions rather than statistical hypotheses
Descriptive studies	Research questions, without formal hypotheses
Experimental and some correlational quantitative studies	Hypotheses

4.6 How the three connect



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COMMON MISTAKES

Writing too many research questions.

Formulating questions that are too broad.

Using objectives that do not correspond to the questions.

Writing hypotheses that cannot be tested.

Including hypotheses in a qualitative study without a methodological reason.

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