

WOX7001 – RESEARCH METHODOLOGY

Topic 6 – Mixed-Method Research

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Difficult to quantify?

Mbappe's total France goals

Competition	Games	Goals
World Cup	14	12
Euro		0
World Cup qualifica	12	6
Euro qualification	7	5

FRANCE LOST!



Observations

- attacking or counterattacking
- slow or quick tempo
- short or long passing
- teamwork or individualistic play

What is Mixed Methods Research?

- Mixed methods research is both a method and methodology for conducting research that involves collecting, analyzing, and integrating quantitative and qualitative research in a single study or a longitudinal program of inquiry.
- The purpose of this form of research is that both qualitative and quantitative research, in combination, provide a better understanding of a research problem or issue than either research approach alone.
- Researchers who use this design are expected to know and understand BOTH quantitative and qualitative research properly in order to effectively conduct this method.

What is Mixed Methods Research?

- The mixed methods research design is considered as an advanced methods; procedures tend to be time-consuming and requires extensive data collection and analysis.
- Mixed methods consists of **merging**, **integrating**, or **linking** of qualitative and quantitative data to provide a more meaningful discussion of results.
- It is not collecting separate sets of data for research but to analyze, establish or relationship the connection between these two set of data.

How would you combine two types of data?

Qualitative

Text Data

This is a sample of a text file of words that might be collected on interview transcripts, observation fieldnotes, or optically-scanned documents.

Quantitative Numeric Data

2 3 4 2 5 2 3 1 1 2 3 4 2 3 3 2 1 1
1 5 3 4 1 2 3 1 4 4 5 5 4 1 2 1 4 3
3 5 1 4 2 3 1 5 5 2 2 1 5 3 5 1 3 1
5 3 2 2 5 1 3 2 4 4 3 1 2 4 2 2 4 1
5 5 4 2 1 5

Mixing or linking the data

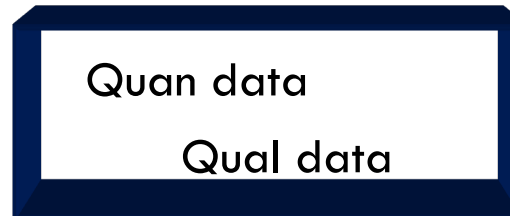
Converge data:



Connect data:

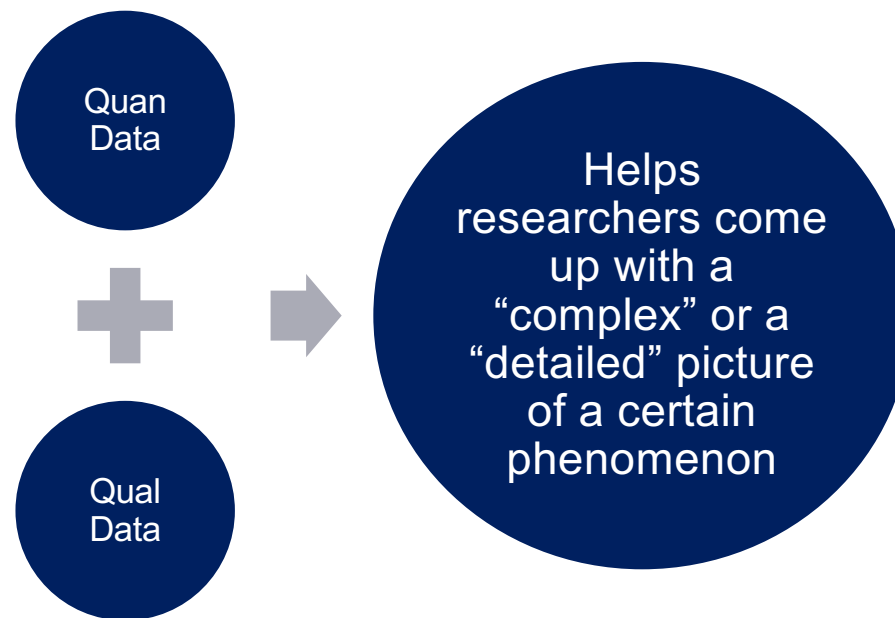


Embed the data:



When to use mixed methods?

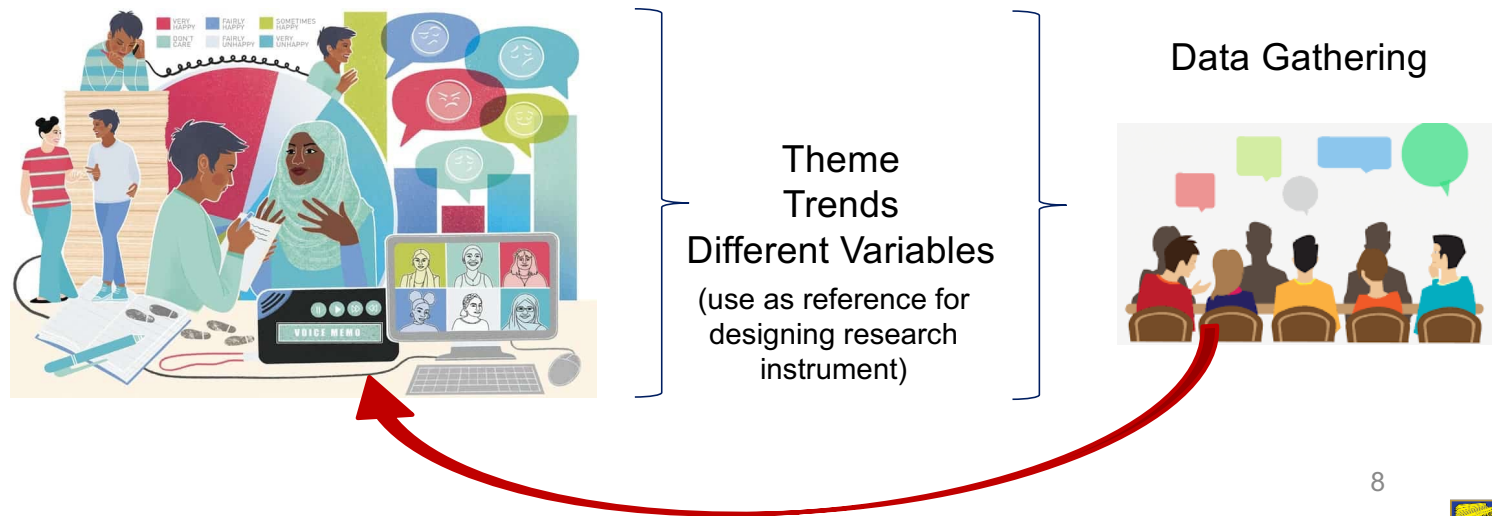
(1) To build on **strengths** of both quantitative and qualitative data.



When to use mixed methods?

(2) One type of research is **not enough** to address the problem or answer the questions

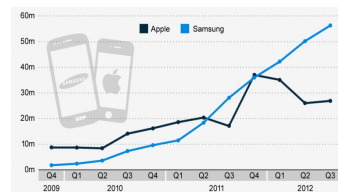
- to collect additional data is needed in order to further elaborate or provide supporting evidence that help explain the initial dataset.



When to use mixed methods?

(3) If a researcher wants to provide an **alternative** perspective in a study.

Data Gathering about
Purchasing of Smart Phone (Apple or Samsung)



ANSWERS

Characteristics of Mixed Methods Research Design

- Research Rationale

- » the rationale of researcher for conducting mixed methods
- » provides justification behind the need to collect the both qualitative and quantitative data (research design)

- Data Collection Methods

- » Identify which **specific forms** of qualitative and quantitative data which would be collected in data gathering process.
- » This is involved; data treatment / data analysis

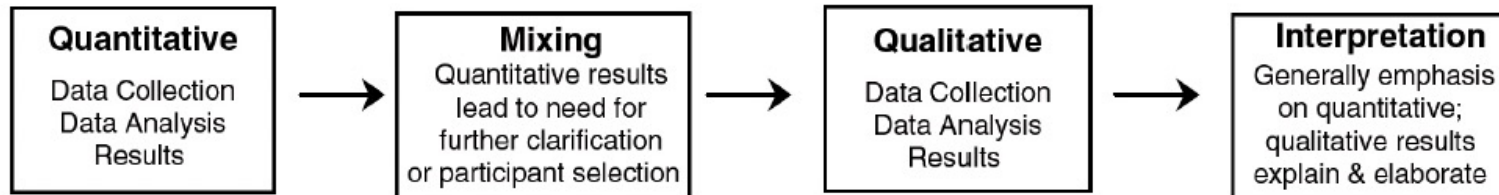
Characteristics of Mixed Methods Research Design

- Data Priority
 - » In mixed methods, researcher tends to place more emphasis on one type of data than on other types of data collected.
 - » Quan & Qual data are equal weight
 - » Quan data is greater weight than Qual data
 - » Qual data is greater weight than Quan data
- Data Gathering Sequence
 - » Quan data is collected FIRST, followed by Qual data
 - » Qual data is collected FIRST, followed by Quan data
 - » Both are collected at SAME TIME and in SEQUENCE
 - » Both Quan and Qual data are collected at SAME TIME

Data Gathering Sequence Design

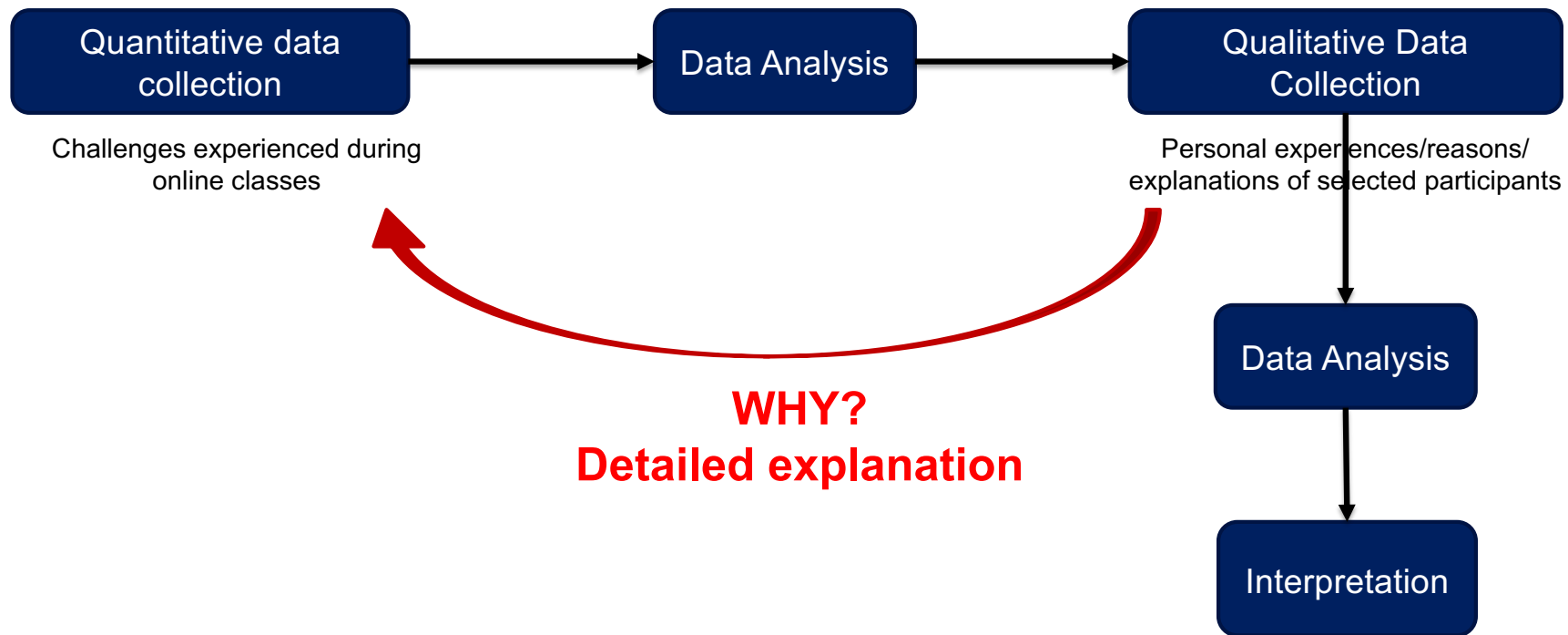
- Explanatory

- » Sequential Design: Quantitative then Qualitative
- » Qualitative phase is to explain the results of Quantitative phase



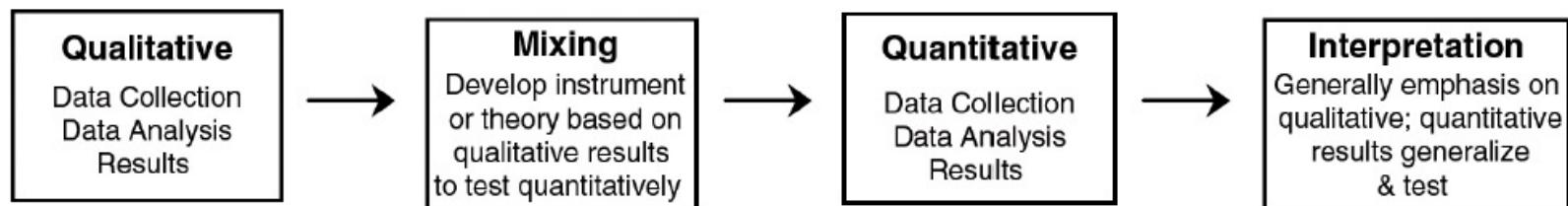
Example: Explanatory Sequential Design

Challenges experienced by High School students during online classes



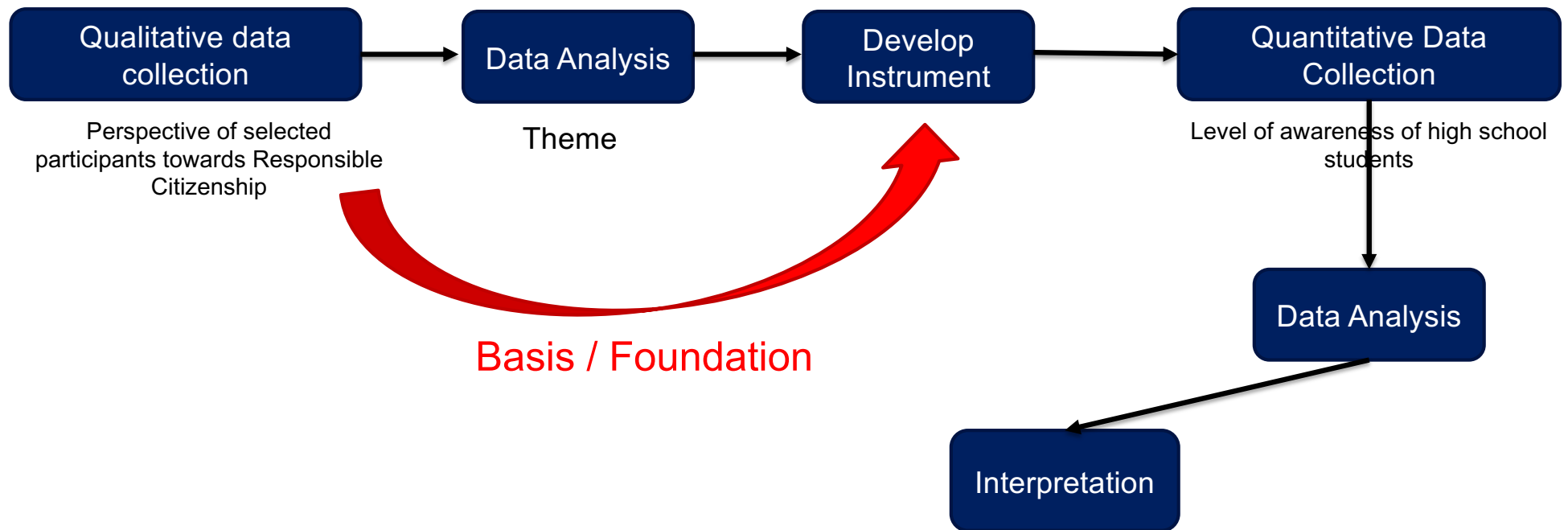
Data Gathering Sequence Design

- Exploratory
 - » Sequential Design: Qualitative then Quantitative
 - » Results of qualitative phase inform quantitative phase

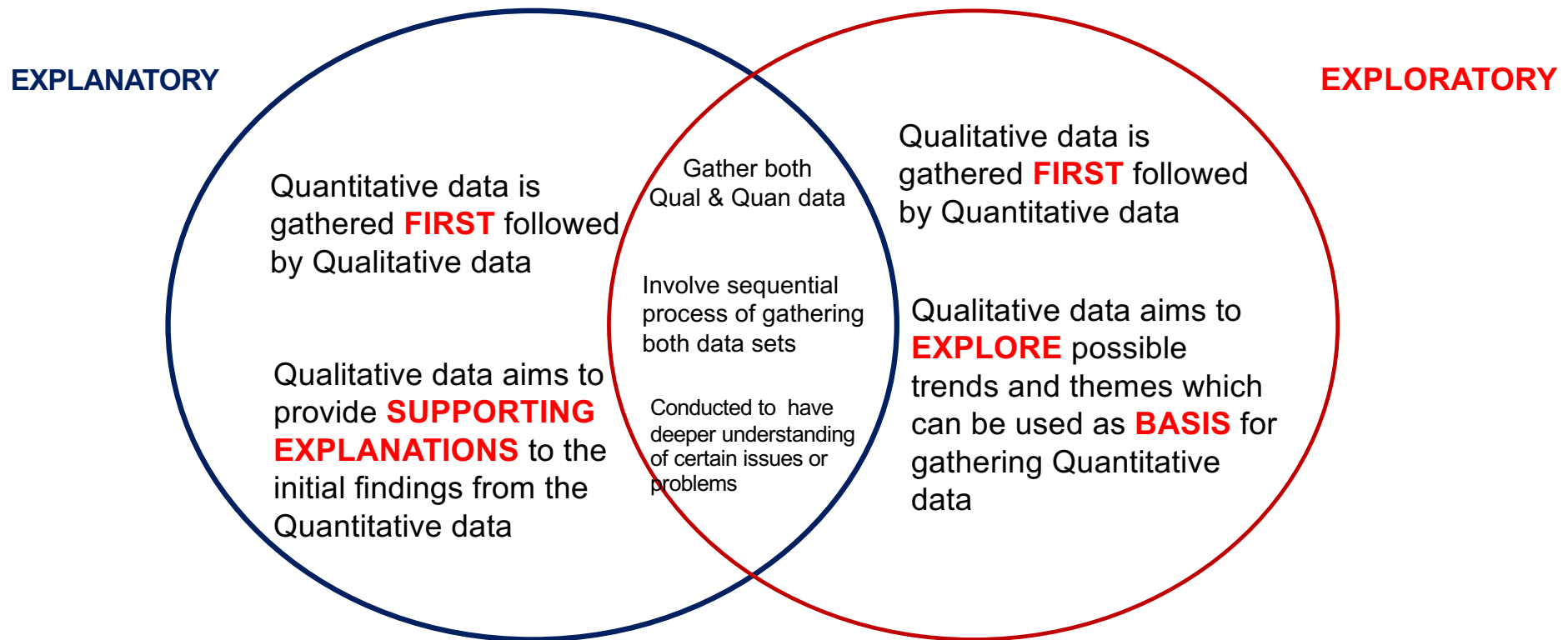


Example: Exploratory Sequential Design

Awareness of High School Students towards Responsible Citizenship



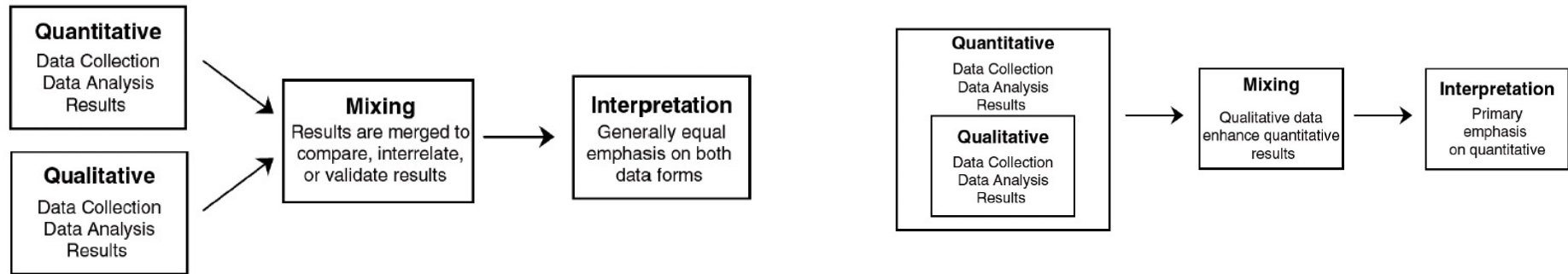
Different between Explanatory and Exploratory



Data Gathering Sequence Design

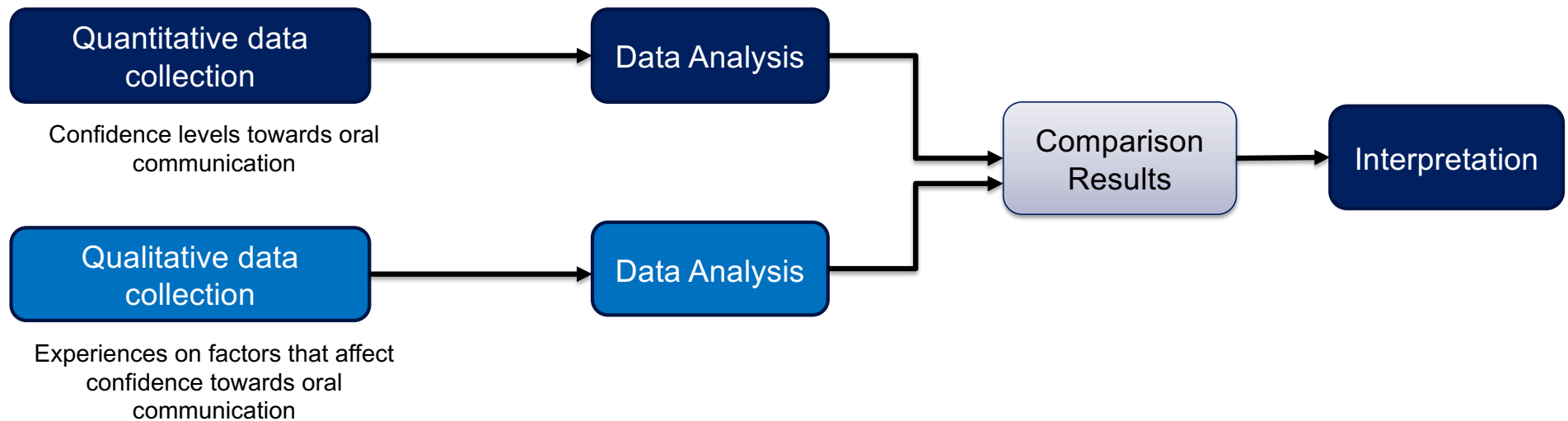
■ Convergent

- » Concurrent Design: Quantitative and Qualitative concurrently
- » Findings triangulated from combined data
- » Triangulation – using data collected from different sources (samples), or at different times, or using different methods or modes to reach the same conclusion.



Example: Convergent Design

Factors Affecting Teachers' Confidence Levels Towards Oral Communication

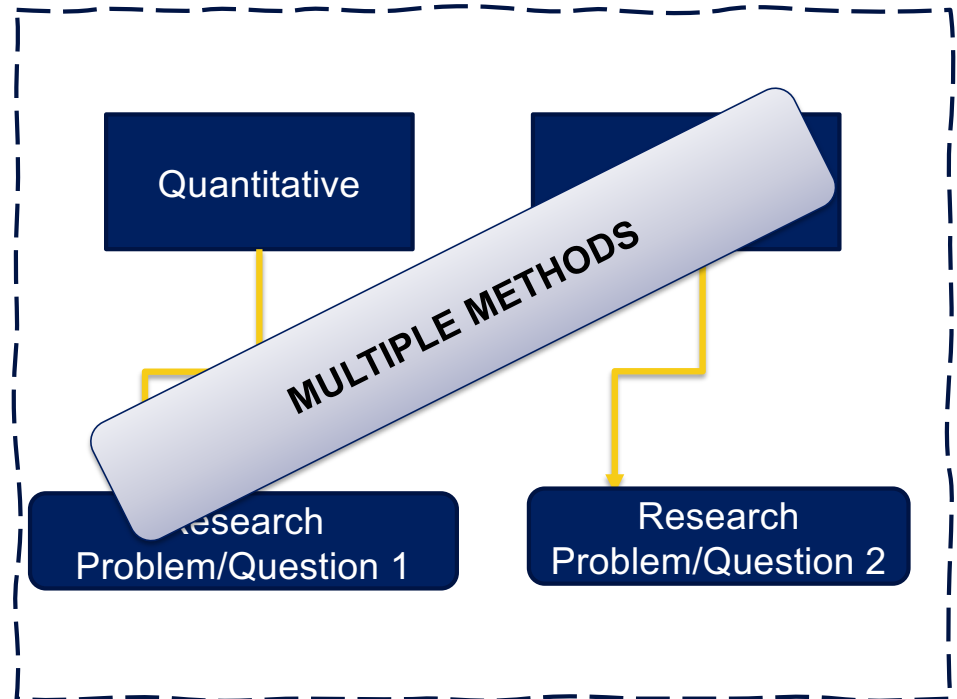
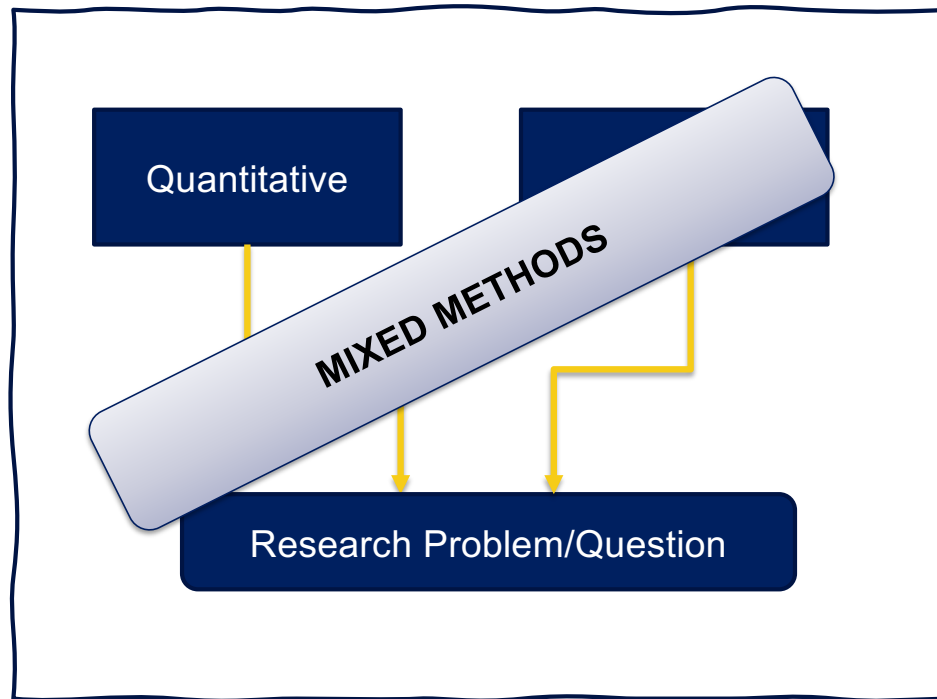


- The strength of this design is that it **combines** the **advantages** of each form of data
- Quantitative data provide **generalizability**, qualitative data offer information about the **context or setting**.

Mixed Methods and Multiple Methods are the same?

Conclusion

Mixed vs Multiple Methods



Thank You

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