International Conference on Educational Measurement and Evaluation (ICEME2023)
Learning Loss Assessment and Recovery: Relevance and Directions in Post-Pandemic
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Exploring Realistic Mathematics Education in Statistics Teaching for Post-Pandemic Use

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Overview

01

Background

Performance in Statistics

Teaching Statistics

Instructional Model

Learning Loss

Realistic Math Education

Learning Recovery

Objective

This research aims at providing an **in-depth description and understanding of the practices of Statistics teachers** teaching Junior High School students using the realistic math education as a basis in **developing an instructional model.**

Problem

1 How do the mathematics teachers practice Realistic Mathematics Education approach in teaching Statistics to Junior High School students in terms of the following areas:

Instructional Planning **1.1** **1.2** Pedagogical Practice

Instructional Materials **1.3** **1.4** Assessment Practice

2 What instructional model can be developed to illustrate applications of RME in teaching Statistics to JHS students?

02

Methodology

Design   Qualitative-phenomenological Research Design

Instruments   Criteria for the selection of participants

Lesson Plan

Interview Questionnaire

Sampling   10 Participants – Purposive Sampling technique

02

Methods

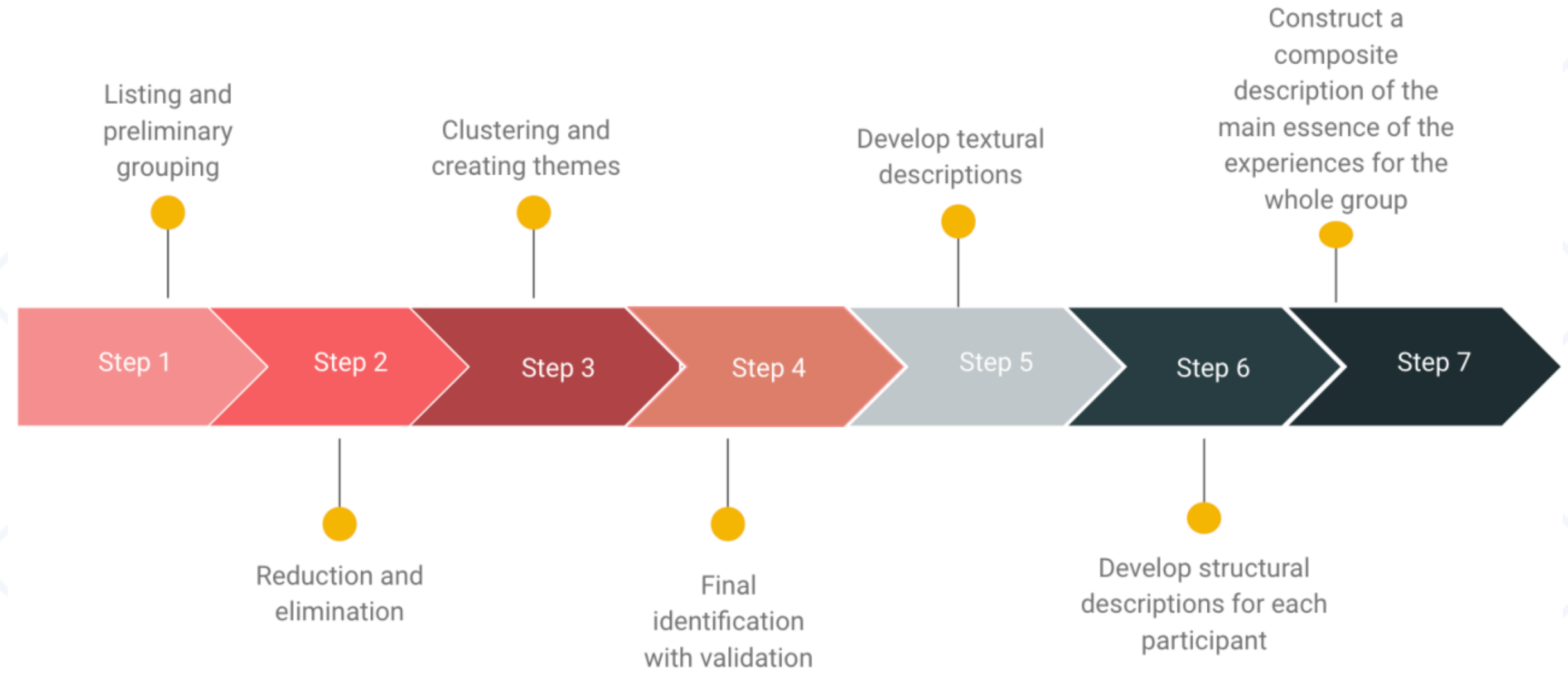| Pre-Data Gathering Stage	Data Gathering Stage	Post-Data Gathering Stage
1. Collecting of related literatures 2. Validating the criteria for the selection of participants and interview questionnaire. 3. Seeking approval of Sta. Rosa City Division Superintendent to conduct observation and interview in Sta. Rosa public schools 4. Selecting the participants based on the criteria	1. Conducting an initial assessment of the participants 2. Providing orientation to the participants about the objectives of the study and scheduling. 3. Examining of lesson and assessment plans. Observing the conduct of classes for 2 meetings and interviewing the participants with consent form.	1. Transcription of the interviews by the moderator 2. Validating data by showing transcripts to the participants. 3. Exploring essence and meaning of the responses 4. Analyzing data through bracketing, horizontalization and clustering themes. 5. Validation of the results by showing the analysis to the participants for checking.

Methods

02

Data Analysis

Listing and preliminary grouping

Clustering and creating themes

Develop textural descriptions

Construct a composite description of the main essence of the experiences for the whole group

| Step 1 | Step 2 | Step 3 | Step 4 | Step 5 | Step 6 | Step 7 |

Reduction and elimination

Final identification with validation

Develop structural descriptions for each participant

Moustakas' (1994) Modification of the Van Kaam Method of Analysis of Phenomenological Data

Development of Instructional Model

Results and Discussions
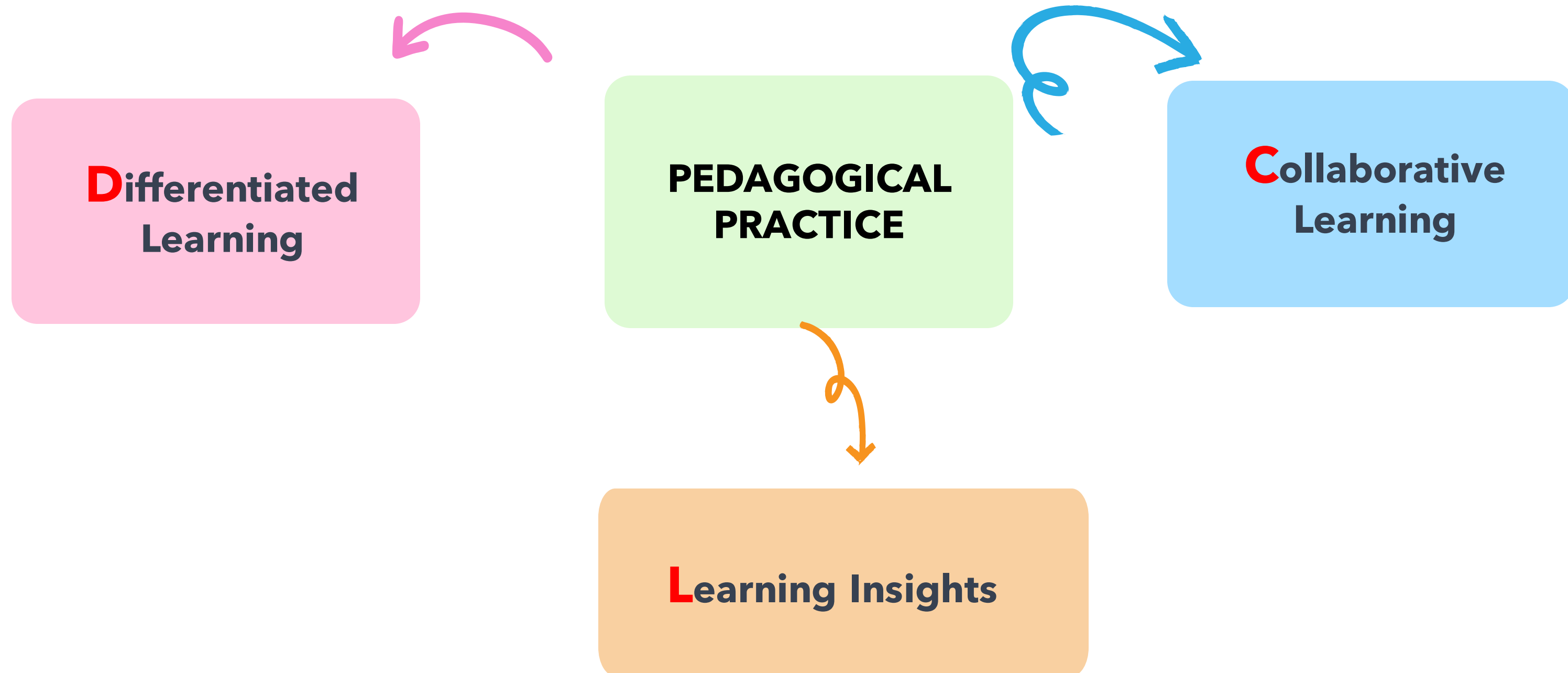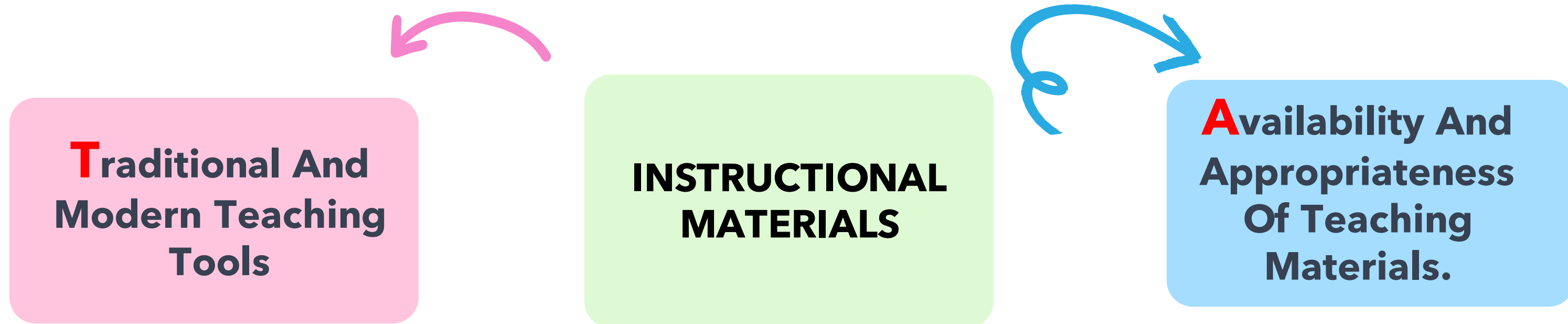
APTER

Adapting to Student Abilities
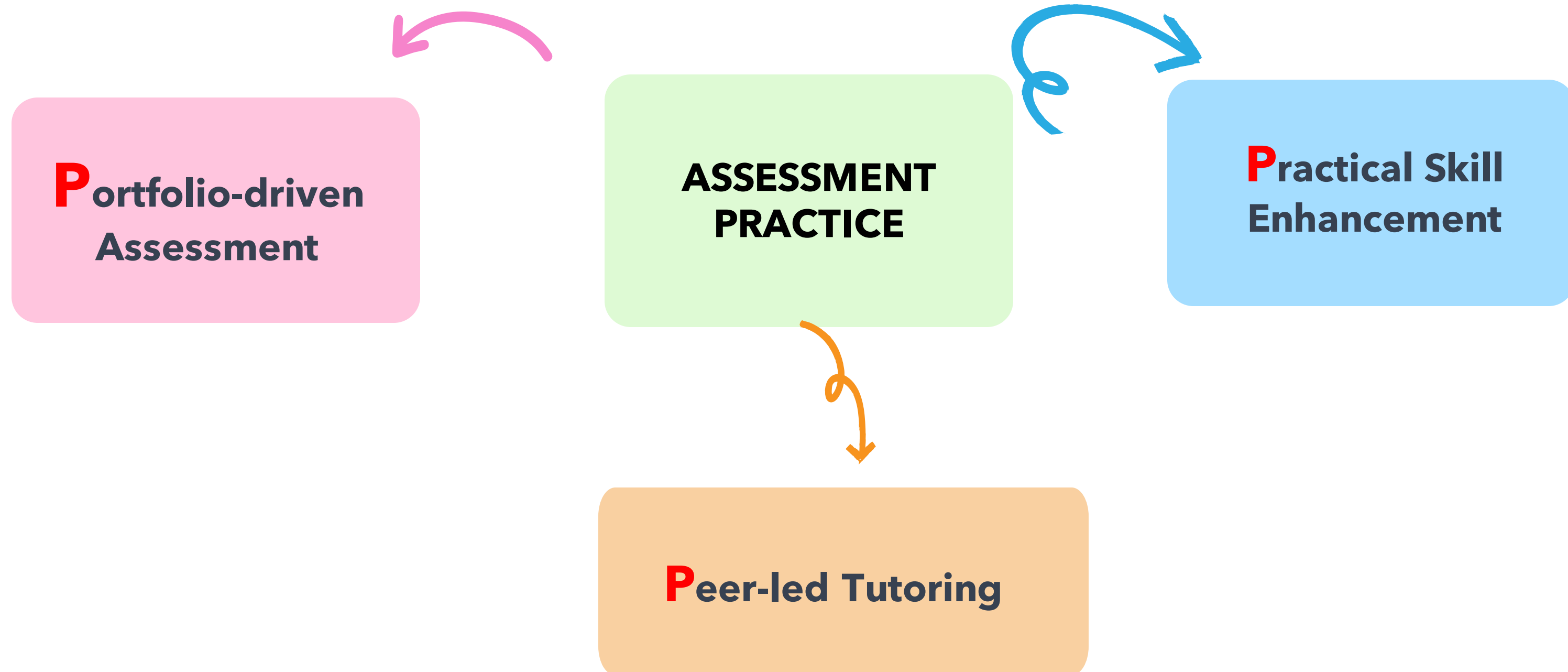
Technology Incorporation

PRACTICES IN INSTRUCTIONAL PLANNING

Progressive Learning

Employing 4A's Strategy

Real-world Context

Results and Discussions

LCD

Differentiated Learning

PEDAGOGICAL PRACTICE

Collaborative Learning

Learning Insights

Results and Discussions

AT

Traditional And Modern Teaching Tools

INSTRUCTIONAL MATERIALS

Availability And Appropriateness Of Teaching Materials.

Results and Discussions

PPP

ASSESSMENT PRACTICE

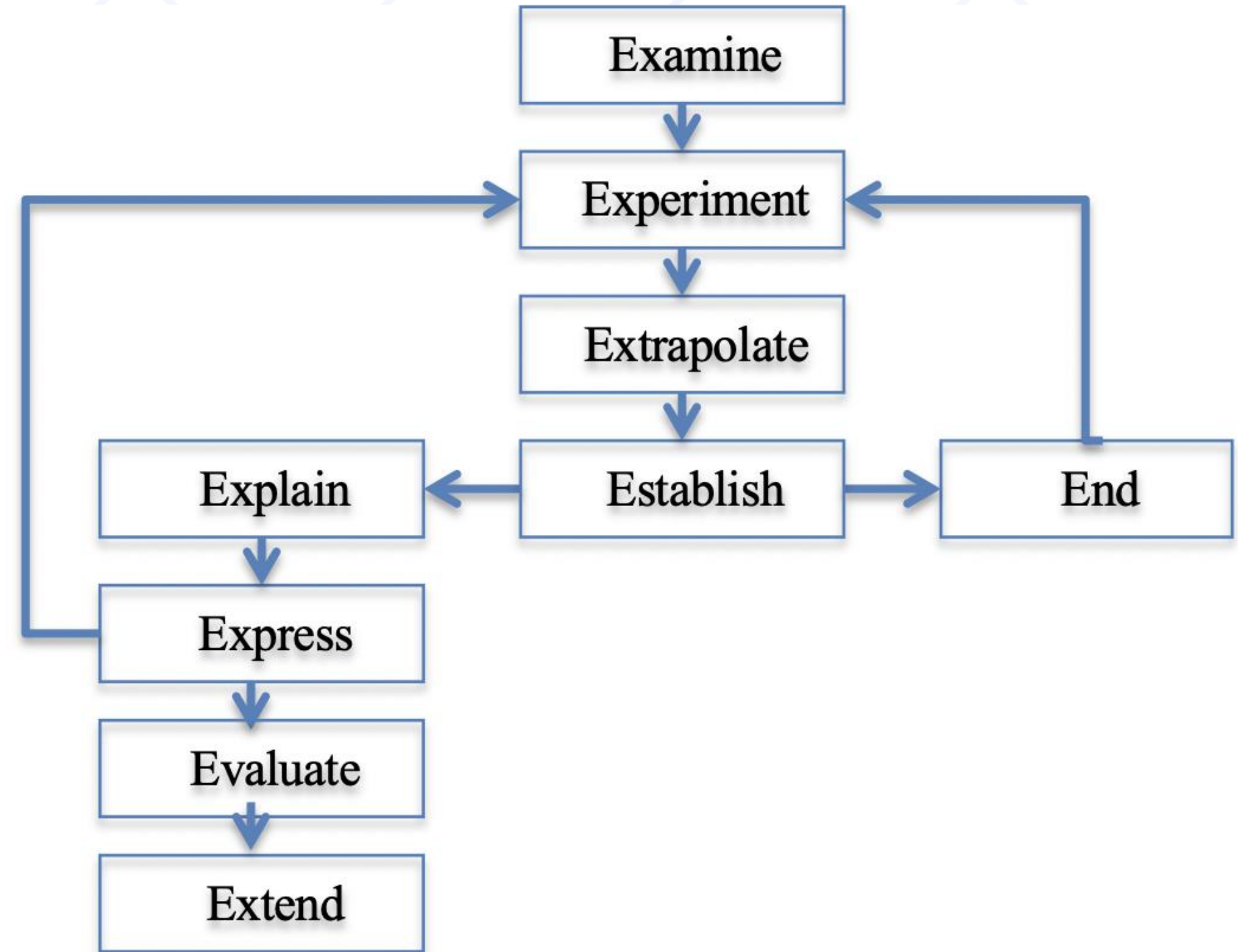**P**ortfolio-driven Assessment

Practical Skill Enhancement

Peer-led Tutoring

Results and Discussions

8 E's

Proposed Instructional Model Illustrating Applications of RME in Teaching Statistics to JHS Students

04

Conclusions and Recommendations

Teachers are urged to integrate the RME instructional model into their lesson plans, tailoring it to specific topics and students' needs. This involves developing authentic instructional materials and utilizing non-traditional assessments to measure students' understanding. Ensuring that schools provide the necessary resources and that educators have a clear grasp of RME is essential. Particularly in teaching Statistics, a fusion of diverse RME strategies is recommended, with the model being tested and confirmed within the Philippine educational landscape.

Conclusions and Recommendations

The study highlights the potential of RME in expanding its use across various mathematical disciplines in both public and private educational arenas. Given RME's effectiveness in bridging theoretical and practical knowledge, it's a promising tool to mitigate learning loss, fostering deep understanding and retention in students. Key stakeholders, such as the Department of Education and academic experts, are urged to further explore RME's efficacy for diverse learners. Furthermore, with the Philippines' involvement in PISA 2022, integrating RME into professional development ensures educators remain at the forefront of effective mathematical instruction.

Thank You