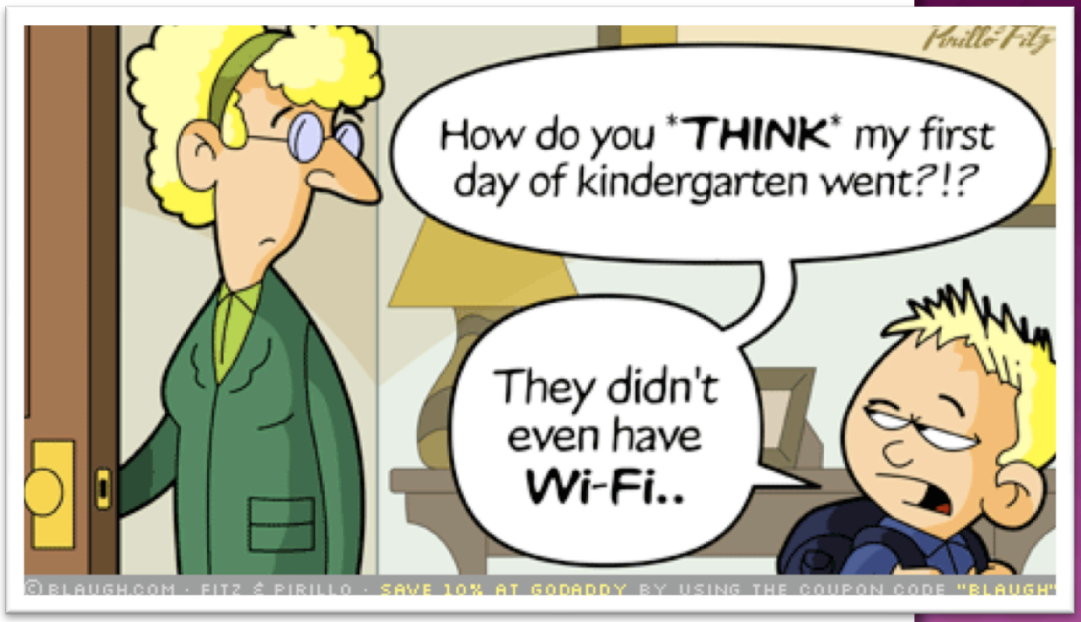
HOW TO EFFECTIVELY USE SRS IN THE ELEMENTARY CLASSROOM

Natalie Liu
University of Hawaii
Spring 2010

INTRODUCTION - WHY SRS?

- Digital Natives and 21st century learning opportunities



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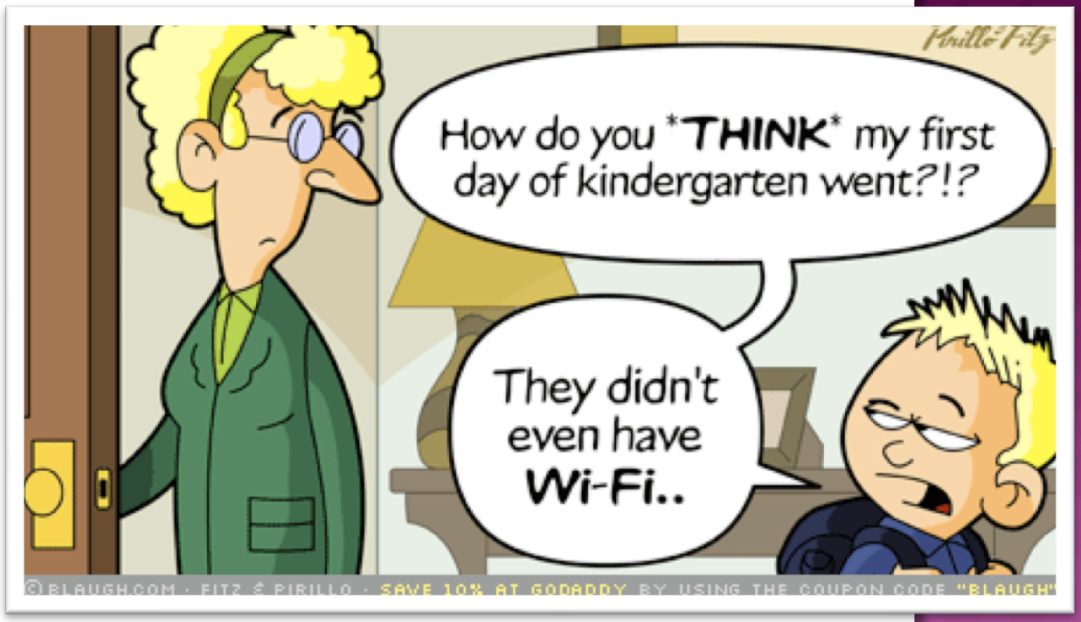
- Innovative strategies - Effective instruction



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- Digital Natives and 21st century learning opportunities
- Innovative strategies - Effective instruction
- Many school starting to use SRS
- Lack of Elementary level studies – Lack of training

INTRODUCTION

How many of you know what SRS is?

INTRODUCTION

How many of you have ever used or seen SRS in action?

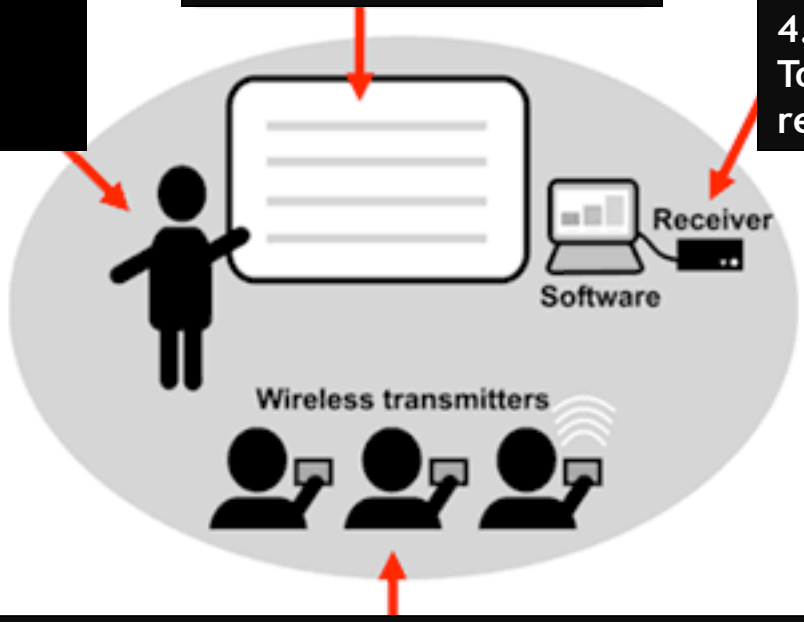
WHAT IS SRS?

1. Teachers develops PPT using SRS technology and presentation software, which incorporates question slides for students to respond to.

5. Results are displayed via a projector

2. Teacher poses a question

4. Responses are transmitted To the receiver for immediate results



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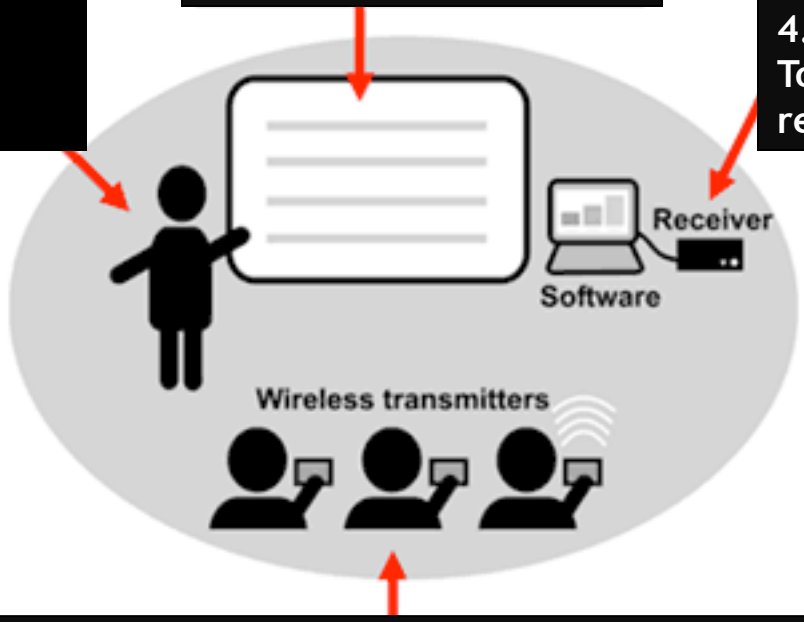

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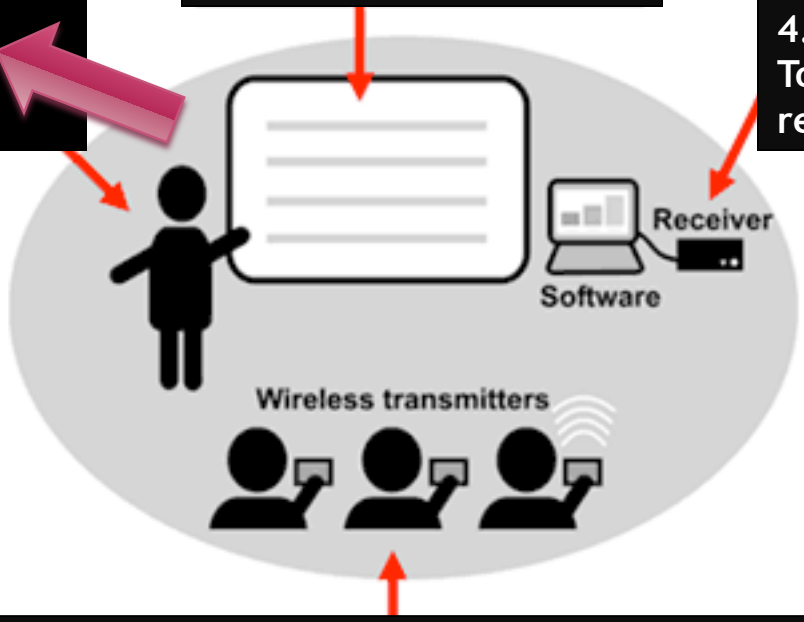

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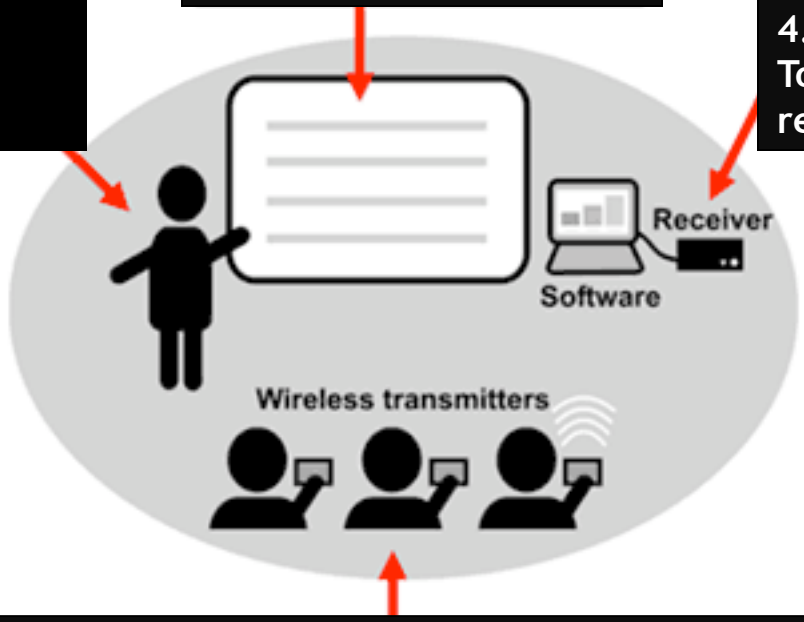

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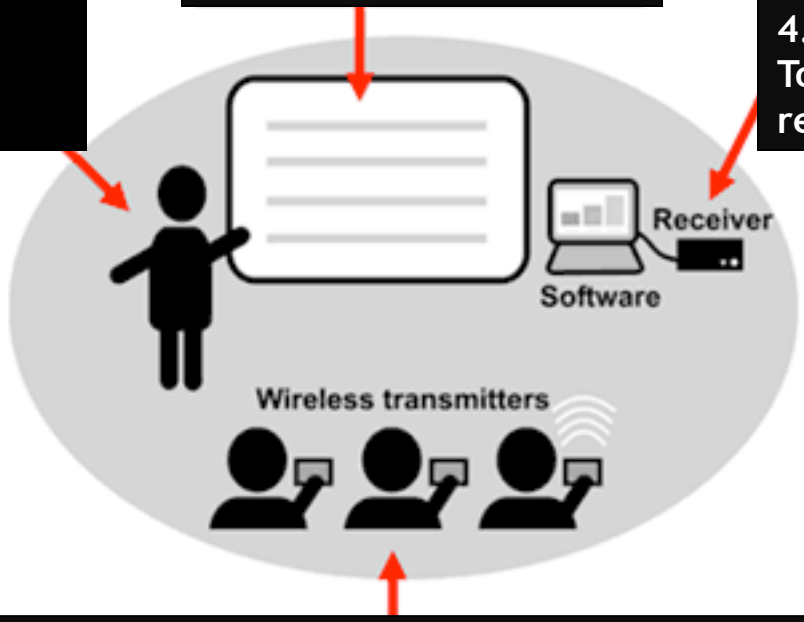

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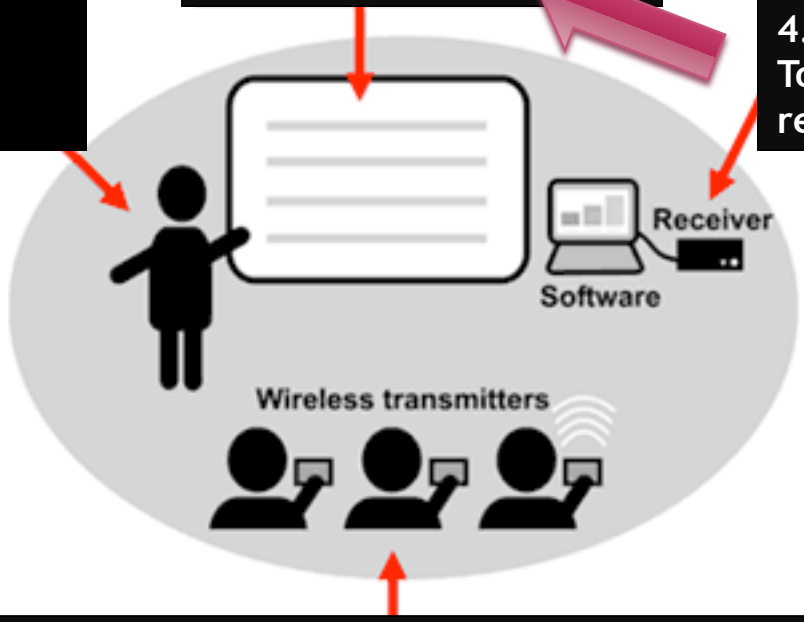

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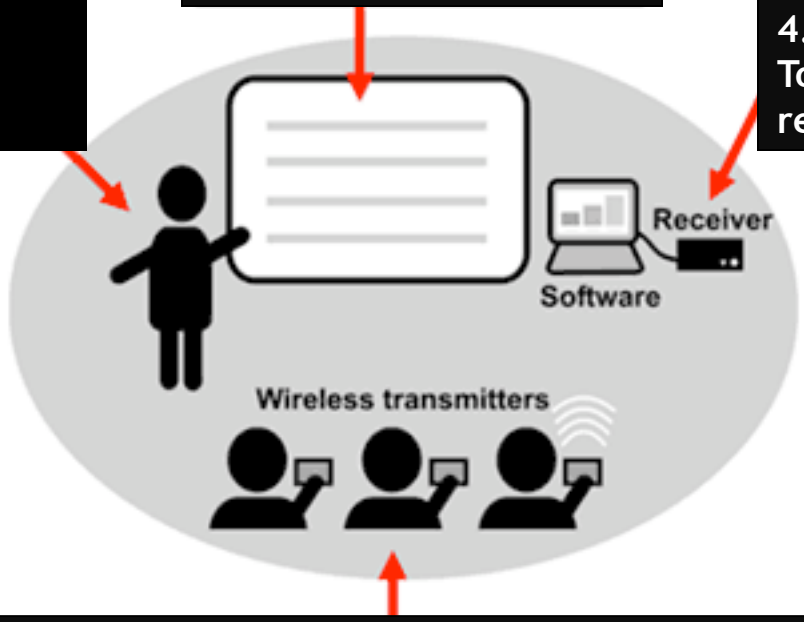

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PURPOSE

- Explore whether teachers can create a lesson plan using the Interactive SRS Lesson Plan Template, modified from the Backward Design Lesson Plan by Tomlinson & Jay McTighe (2006)

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- Explore whether teachers can create a lesson plan using the Interactive SRS Lesson Plan Template, modifies from the Backward Design Lesson Plan by Tomlinson & Jay McTighe (2006)
- To demonstrate the benefits of using SRS and encourage teachers to implement SRS into their daily routines.

WHY A LESSON PLAN?

Stage 1: Identify Desired Results

Establish Goals-Overarching Understanding

-Culture, Time Continuity, and Change. **Benchmark SS.5.1.1** Use chronological order to explain causal relationships between and among people and events

-People, Places, and Environments. **Benchmark SS.5.2.1** Analyze how beliefs and education and/or the society in which a person resides shape his/her "point of view"

Understandings:

What will students understand?

-The learner will compare and contrast ways in which people from different cultures, including themselves, think about and respond to their physical environment and social conditions

-The learner will use various sources to reconstruct the past (diaries, interviews, historical documents).

Essential Questions:

-How has the world in which we live in changed?

-What is perspective?

-What can material objects used by a group of people teach us about their culture?

Objectives

Include essential SRS question here

Stage 2: Assessment Evidence

Performance Tasks:

-Students will research a culture and create a poster including 5 major elements (food, religion, traditions, customs, education, family roles, perspectives, values, and beliefs)

Other Evidence:

-Self-assessment of poster

-On-going student journal/log

-Informal observation/discussions

-Question responses from SRS

Performance Objectives

Active learning strategies

Stage 3: Learning Plan

Learning Activities:

1. Introduce essential understandings of lesson
2. Show students various cultural material objects (Kimono, Turban, Sari, Chinese Knot etc...)
3. **Focus** student attention by posing the question "What can material objects...?" allow time for students to **Ponder**
4. Students work in small collaborative groups to discuss question and use chart paper to record thoughts.
5. Individually respond to the question using SRS
6. Provide **Feedback** by displaying histogram
7. Extensive whole class discussion to **articulate** and **confront** different perceptions, assumptions, conclusions, etc...
8. Pose question about perspective, then repeat steps 4-7
9. Jigsaw reading in small groups from chapter 7 in history text
10. Introduce poster project.
11. Students work on project independently
12. Students present poster to class
13. Students fill out self-assessment worksheet

*Adjust lesson to students needs: Repeat step 3-7 throughout lecture when posing new on the spot questions

Utilizes Questioning Mechanism

Utilizes Questioning Model

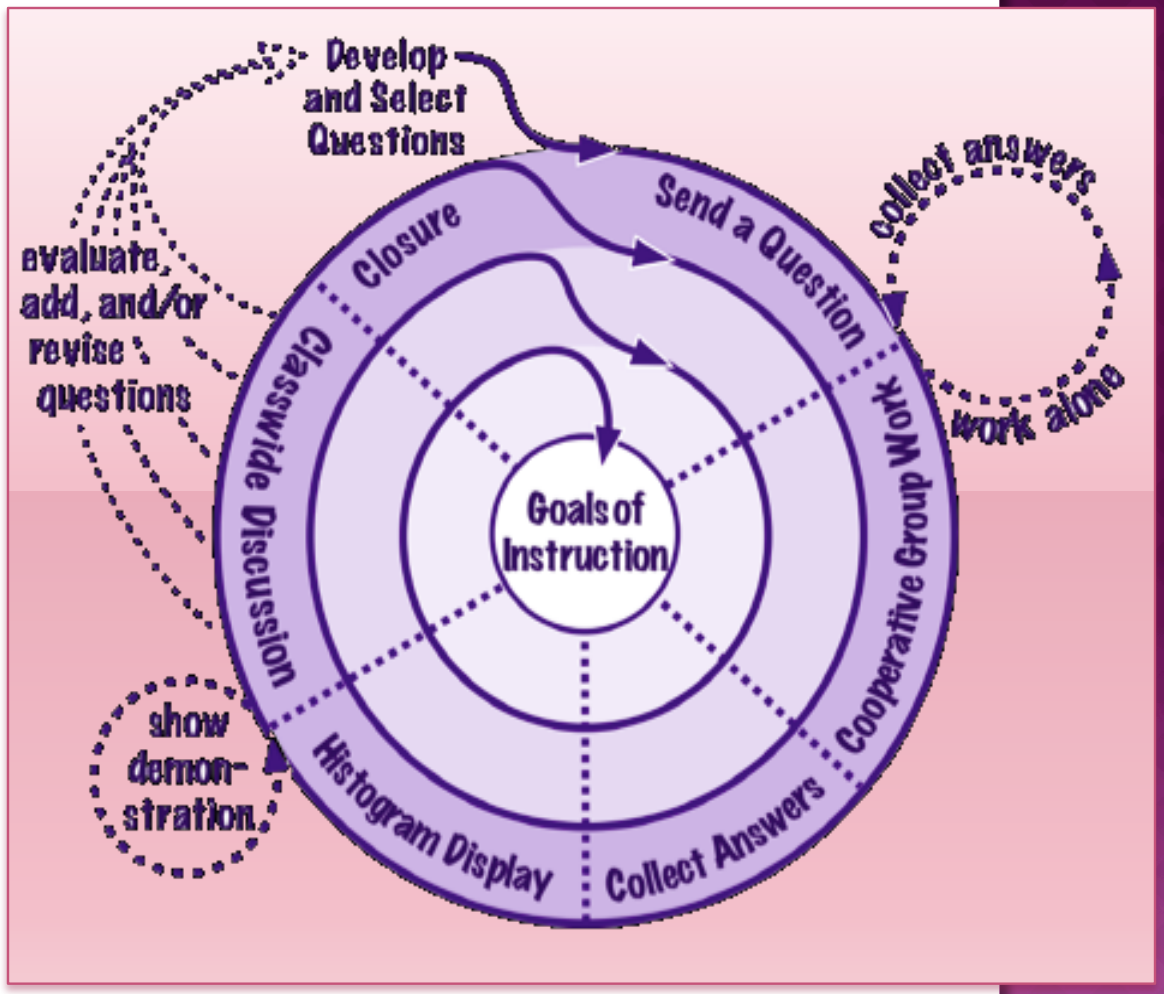
Always plan for contingent teaching

LITERATURE

- In higher education, SRS has a significant impact on student motivation and engagement (Hall et. at., 2005; Roshelle, 2003; Edens, 2009; Caldwell, 2007; Beatty, 2004; Penuel et. at., 2007) and suggests improvement in comprehension (Judson & Sawada, 2002; Caldwell, 2007).
- Increasingly adopted in K-12 and higher educational environments as cost become more feasible (Edens, 2009).
- Beatty et al. (2005) place emphasis on considering the steps within the “question cycle” model.

LITERATURE

- The Questioning Model
  - 1) questions are presented in an encouraging significant cogitation, rather than just recalling facts
  - 2) questions are followed by detailed discussions, first with small groups then as a whole class
  - 3) the instructor continues adjusting the lesson to the needs of the learners —a term referred to as “agile teaching.”



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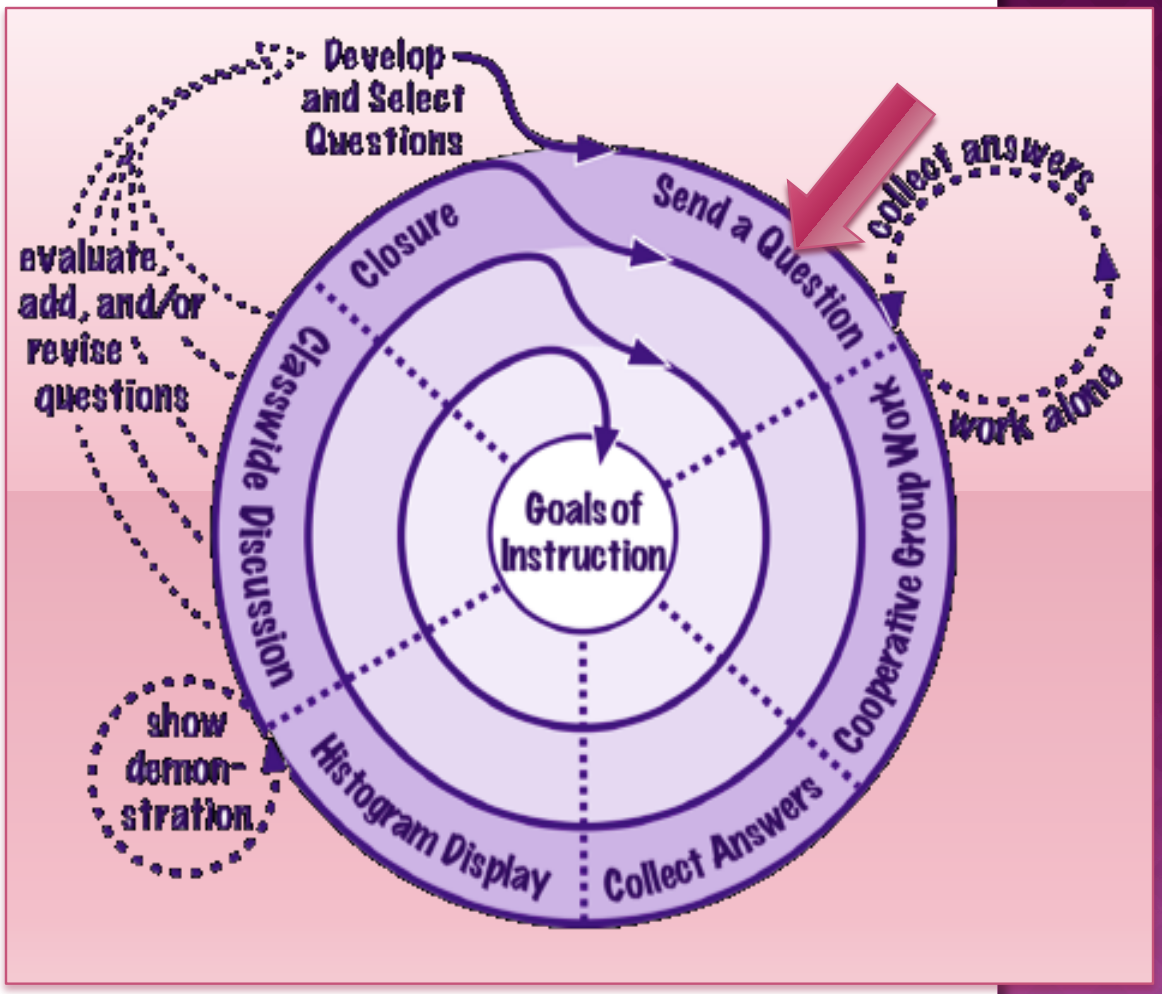

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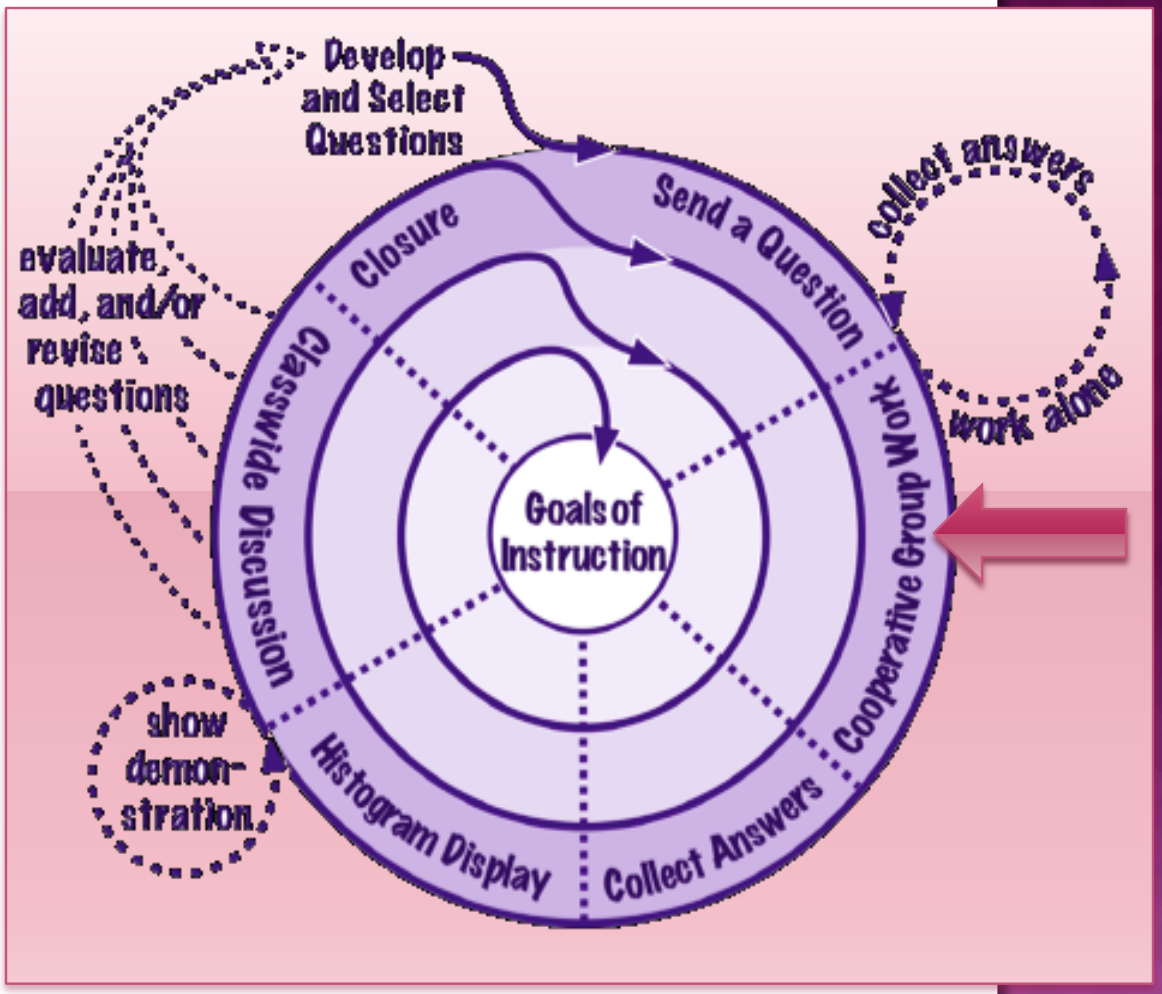

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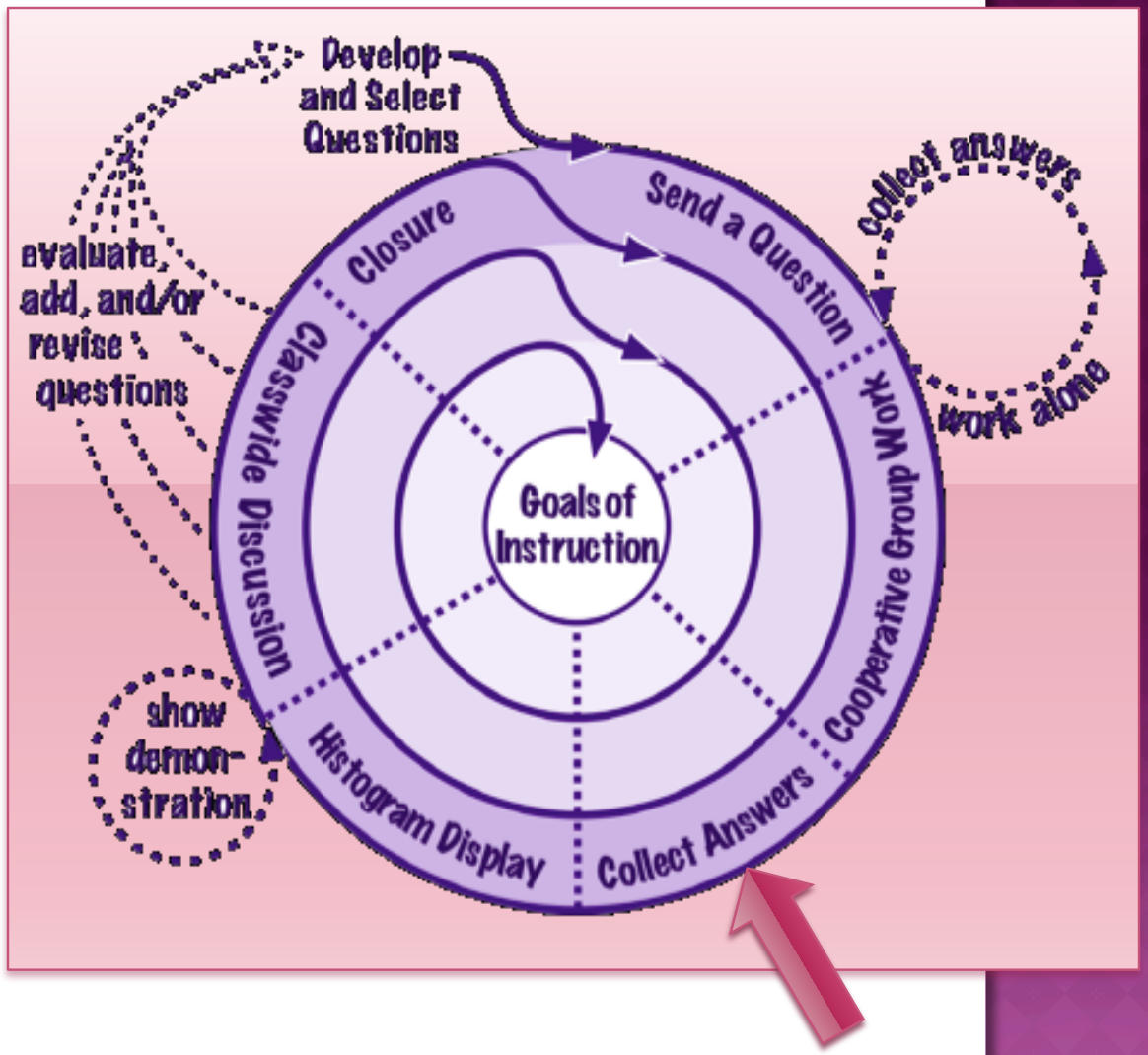

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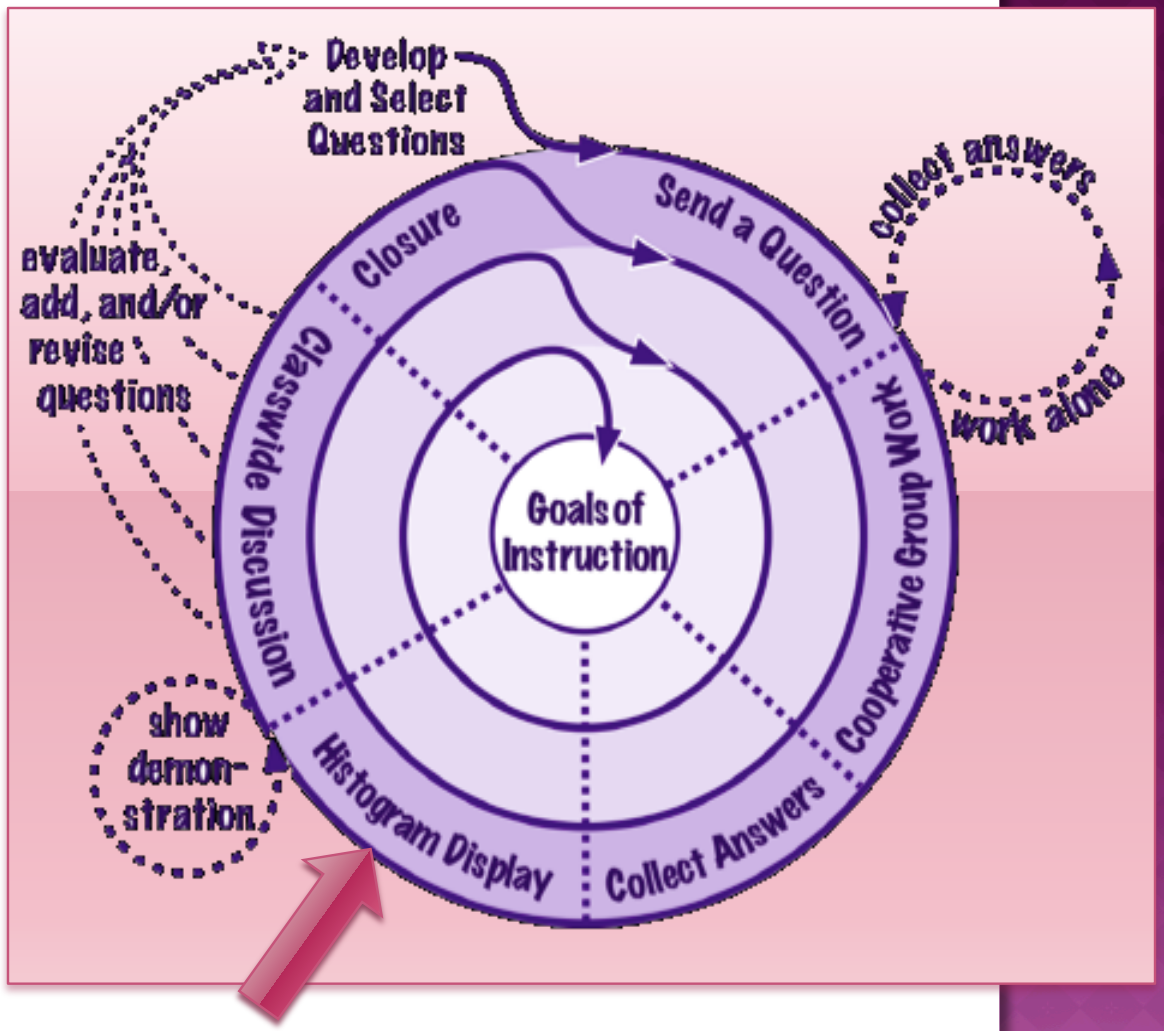

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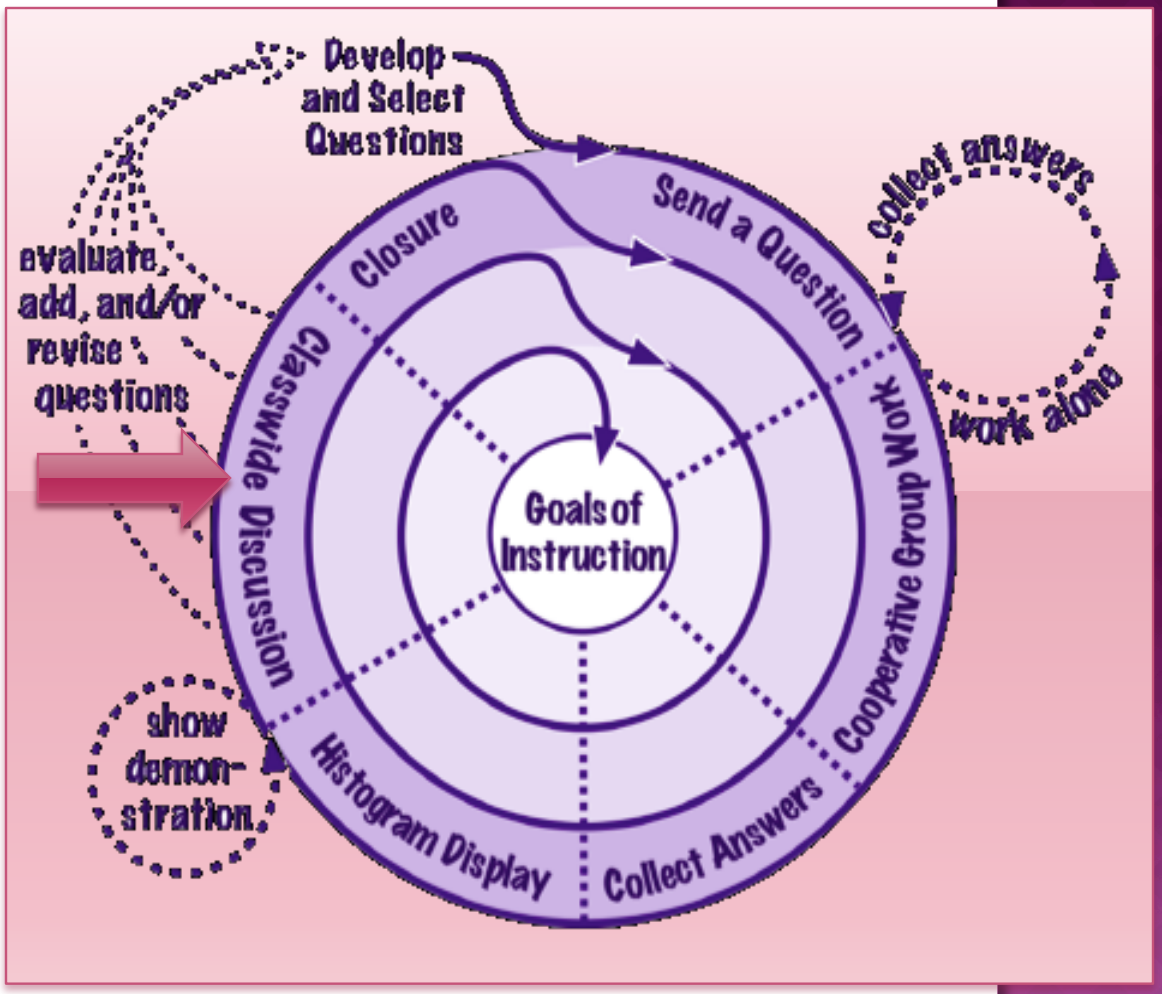

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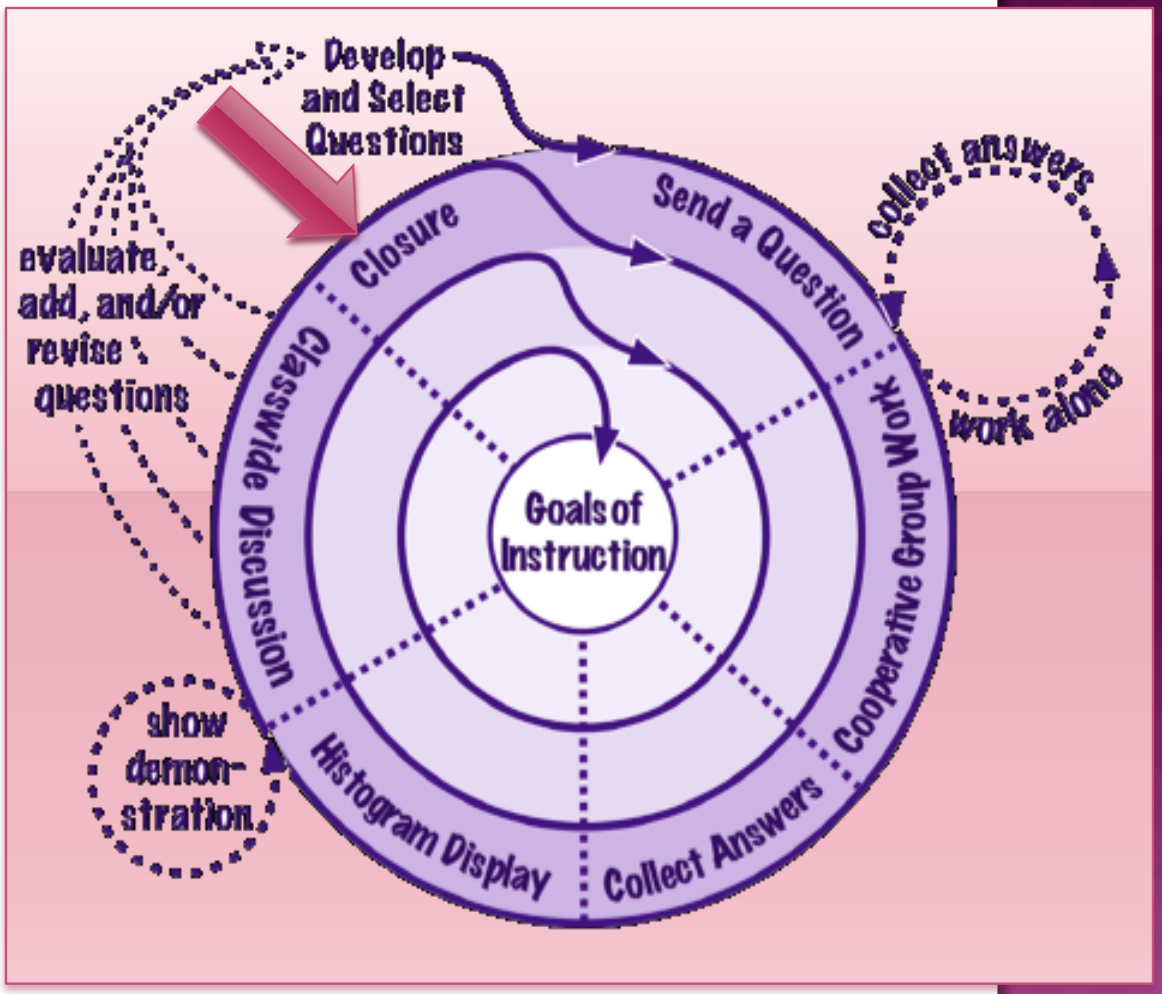
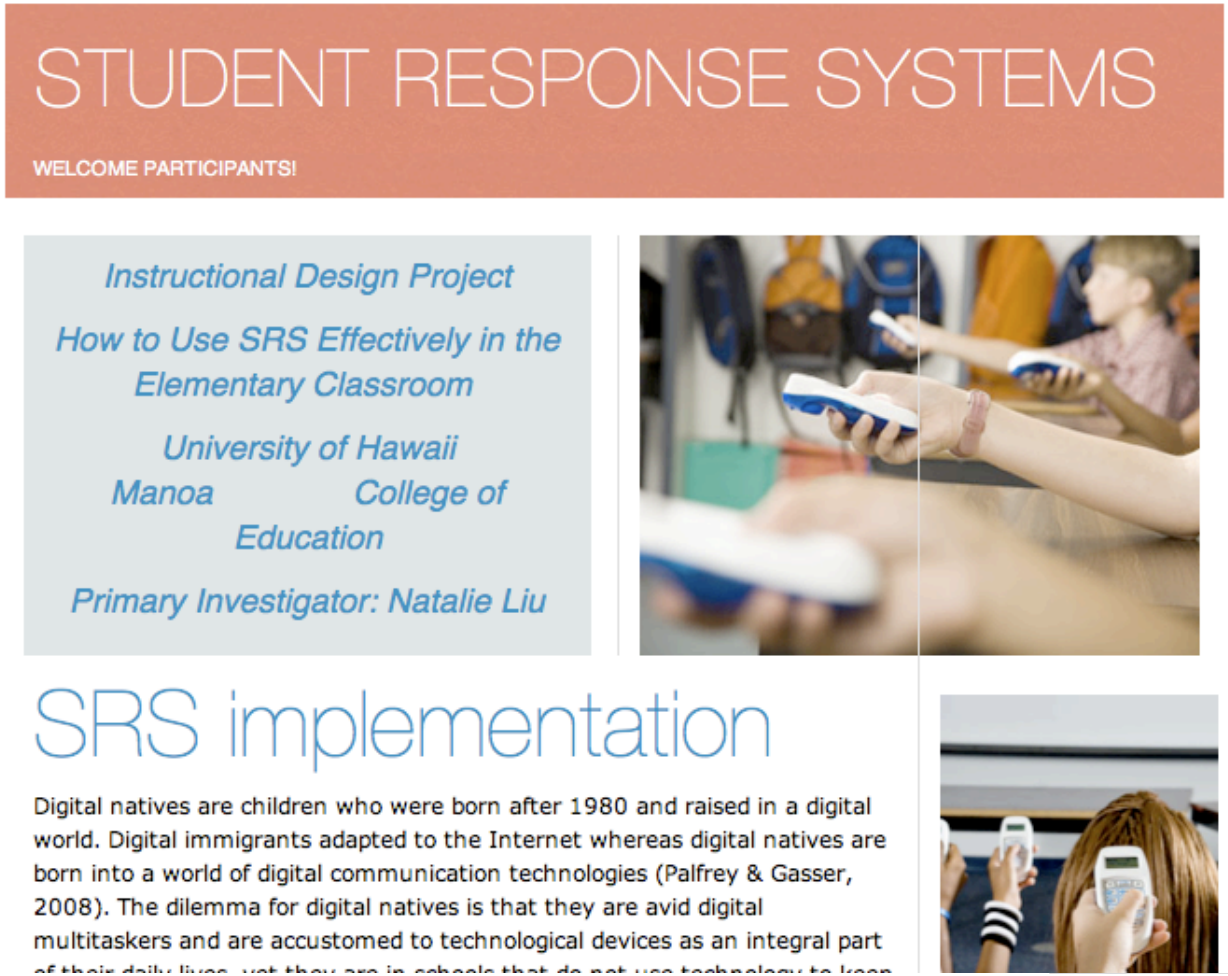


DESIGN METHODOLOGY

- Instructional Videos (Keynote & QuickTime)
- Four Chapters
- Organized with iWeb



TEST & TARGET AUDIENCE

- 8 Elementary Teachers K-5
- 2 Student Teachers
- Little or no SRS experience
- Elementary teachers who want to implement technology in their classrooms

INSTRUMENTS

- Paper-based pre, embedded, and post test
- Paper-based demographic survey & attitudinal survey

Instructional Design: How To Effectively Use SRS in the Elementary Classroom
Natalie Liu
University of Hawaii, Manoa, Educational Technology Masters Student
Embedded test Questions

Chapter 1

1. Which one of the following items does NOT describe an assessment strategy?

a. Pre testing student knowledge of subject area before implementing lesson.
b. Portfolio documenting student learning and improve student metacognition.
c. Using scoring rubric or instructional rubrics to monitor student learning.
d. Teacher introduces homework and classwork as the students follow along.

2. Which statement is false about formative assessment?

a. In formative assessments, students can be involved both as assessors of their own learning and as resources for other students.
b. Formative assessment provides diagnostic feedback to students and instructors at short-term intervals including observations and peer assessment.
c. Formative assessment provides information needed to adjust teaching while teaching is happening and helps teacher to determine next steps.
d. Formative assessment provides a description of students' level of attainment upon completion of an activity, module, or course.

3. Which of the following components is NOT found in a performance objective?

a. Condition
b. Rubric
c. Performance
d. Criterion

4. Which one of the following definition best defines "active learning?"

a. A planned series of actions or events that involve the learner to process, apply, interact and share experiences as part of the educational process and focuses the responsibility of learning on learners.
b. A planned teaching unit that details step-by-step instruction on how to implement a series of lessons, in which the teacher provides detailed instructions for the students to follow in order to complete a task.
c. A planned series of lectures and oral presentations, in which the instructor presents and recites information that is relevant to the content and focuses the responsibility of learning on instructors.
d. A planned series of PowerPoint presentations that include various sound and visual elements that the instructor recites to learners and learners follow along by taking notes and reviewing images on slides.

5. Which one of the following student benefits is NOT a result of "active learning" strategies?

a. Allow students to use technology effectively where it will enhance learning.

Enter code: _____

Instructional Design: How To Effectively Use SRS in the Elementary Classroom
Natalie Liu
University of Hawaii, Manoa, Educational Technology Masters Student
Attitudinal Survey

Thank you for participating in my Instructional Design Project. I would like to know your thoughts and feelings about your experience as a participant in this project. Your feedback will help me to analyze the effectiveness of the modules created and help to make any future revisions. Please remember that all answers will remain anonymous. Please answer each question honestly and to the best of your ability.

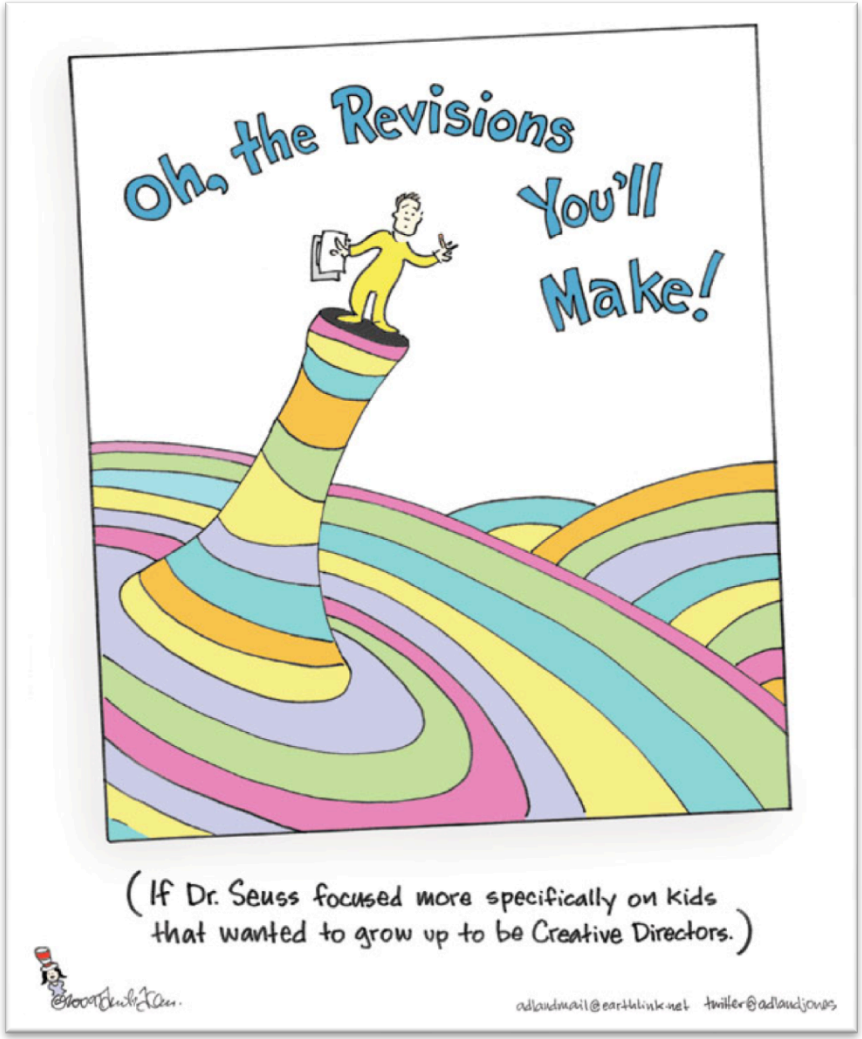
Please consider the following statements and indicate whether you agree or disagree.

SA = Strongly agree
A = Agree
N = Neutral
D = Disagree
SD = Strongly disagree

	SA	A	N	D	SD
Instructional delivery					
1. The length and pace of the instructional module was appropriate.					
2. The steps were broken down into appropriate chunks and chapters.					
3. Visuals used in the instructional module were helpful.					
4. Onscreen text used in the instructional module was helpful.					
5. Audio narration used in the instructional module was helpful.					
6. The webpage helped to organize the content					
Content					
7. The instruction clearly explained pedagogical strategies when using SRS.					
8. The instruction clearly explained educational benefits of using SRS.					
9. The instruction clearly explained all elements of the Questioning Model and Mechanism.					
10. The instruction clearly explained all elements of Active Learning Strategies.					
11. The instruction clearly explained all elements of Backward Designing.					
12. Personal Outcome					
13. I have learned many new pedagogical strategies on how to use SRS effectively.					
14. I now understand there are many educational benefits of using SRS.					

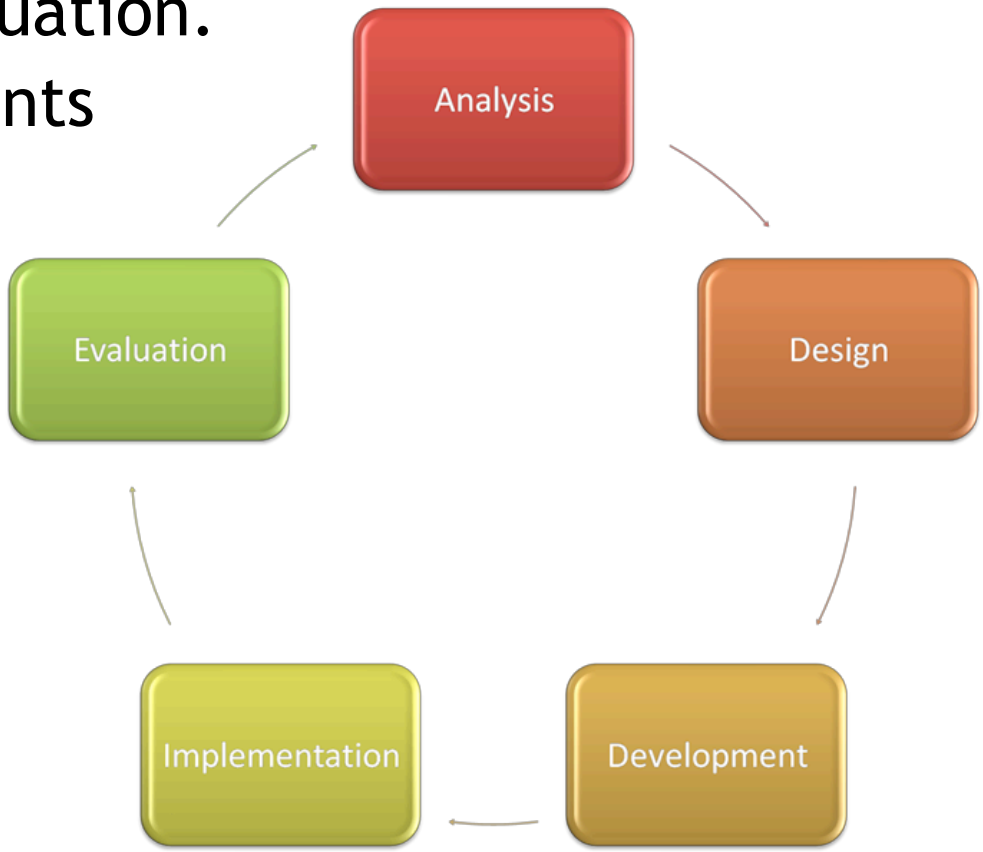
INSTRUCTIONAL DESIGN PROCESS

- Fourth revision



INSTRUCTIONAL DESIGN PROCESS

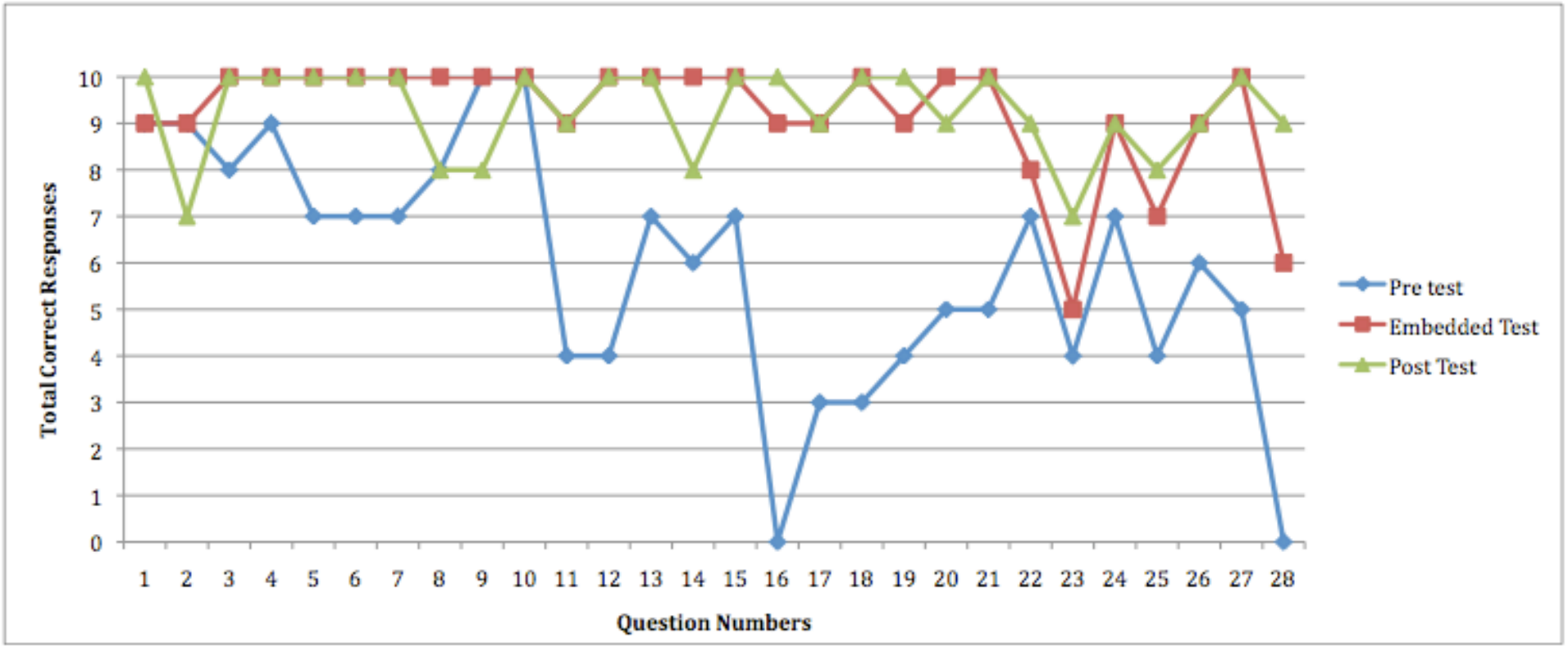
- Fourth revision
- ADDIE model helped in the process of analysis and evaluation.
- Gagne's Nine Events



INSTRUCTIONAL DESIGN PROCESS

- Fourth revision
- ADDIE model helped in the process of analysis and evaluation.
- Instructional Design elements helped in providing scaffolding and sequencing theories.

RESULTS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Question Numbers
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Embedded Test
Post Test

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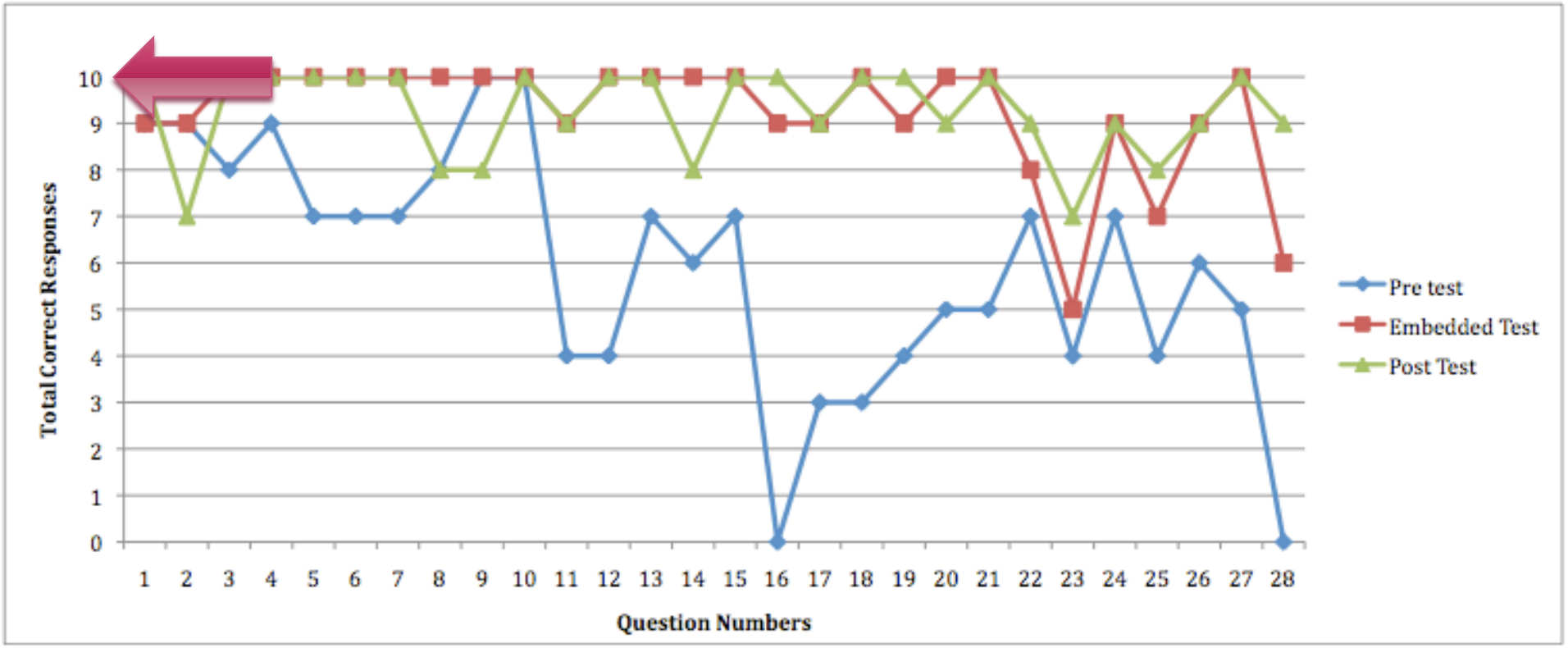
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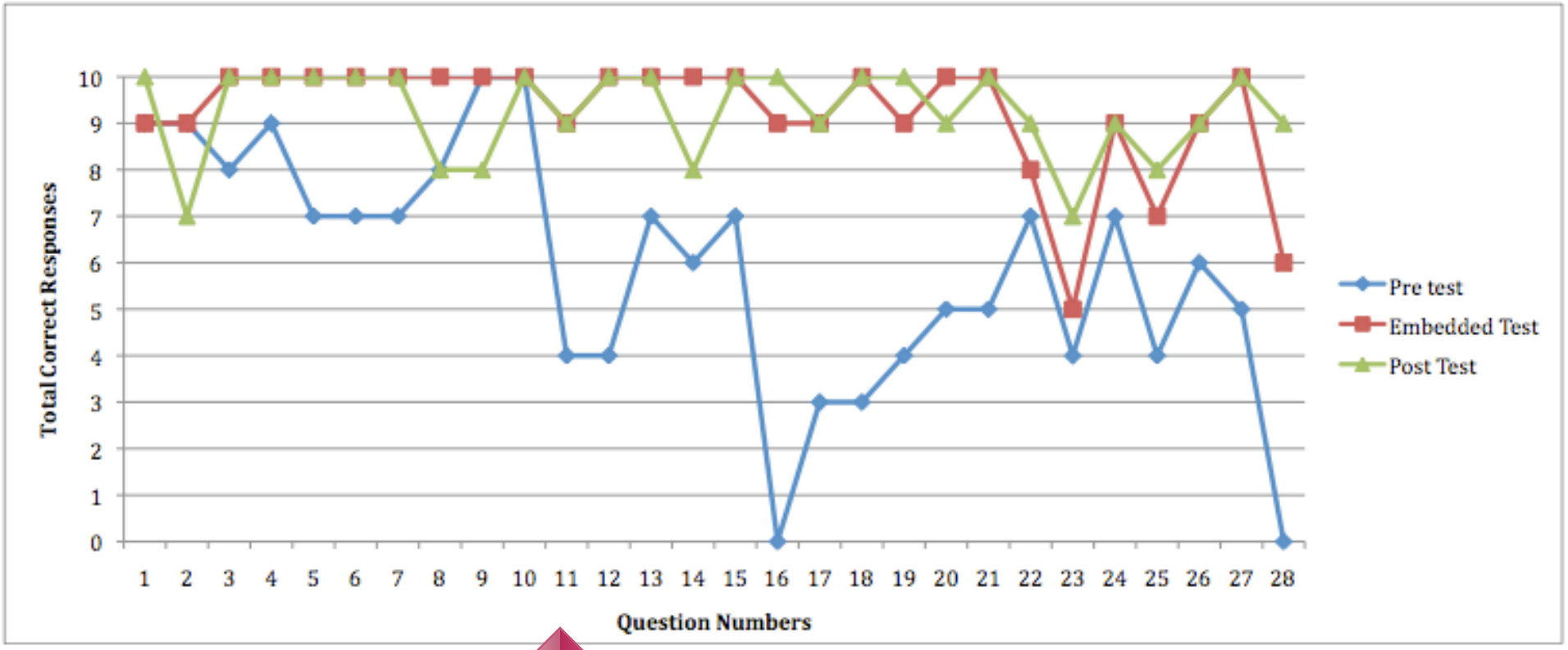
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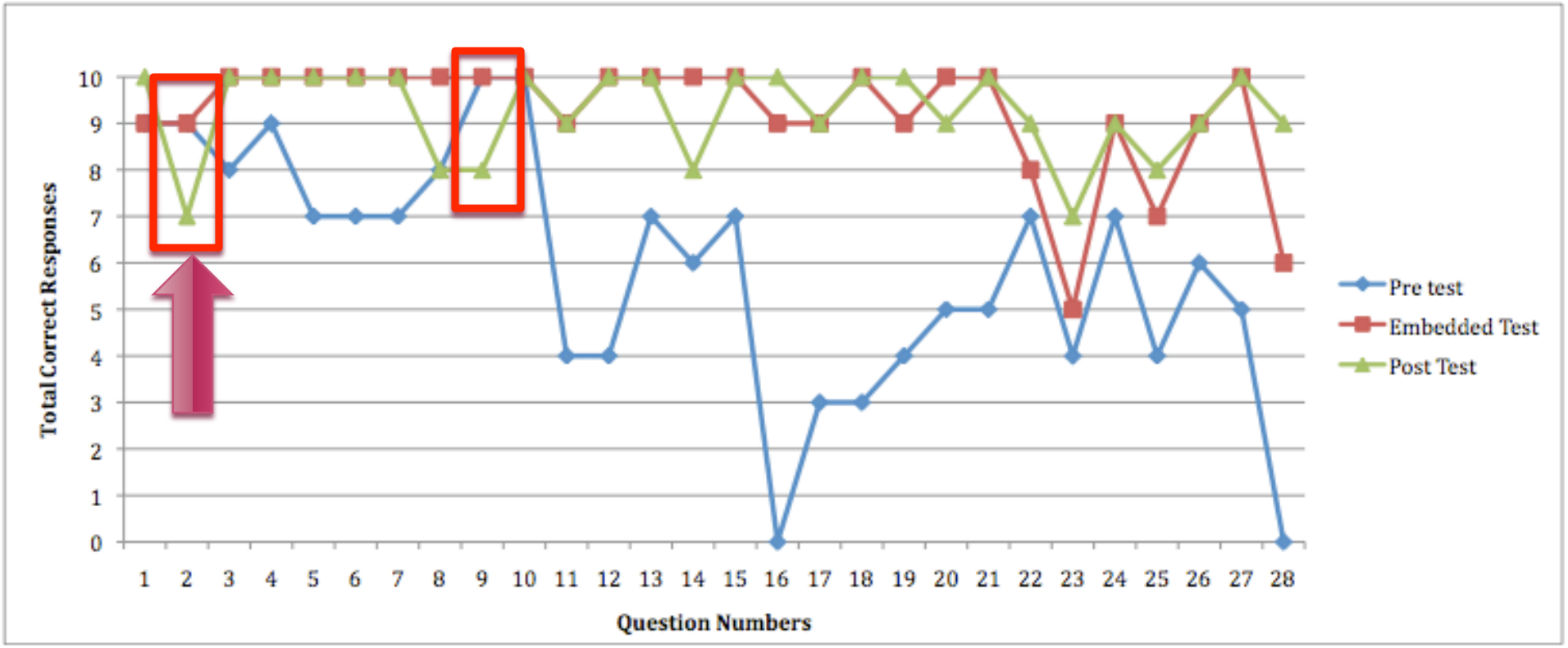
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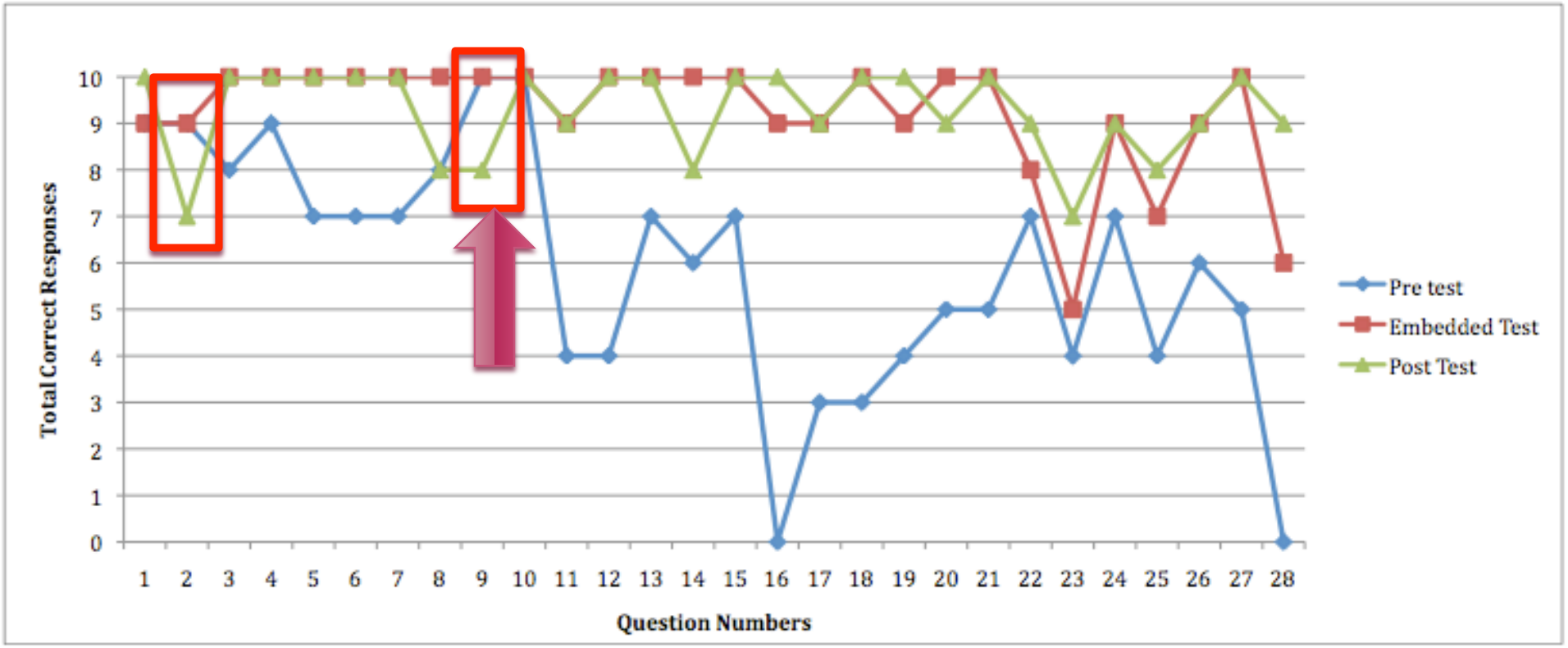
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RESULTS

9. Which one of the following criterion belongs to the final stage in the backward design template?

a) Determine appropriate instructional activities

b) Determine appropriate collective evidence

c) Determine appropriate instructional strategies

d) Determine appropriate terminal objectives

RESULTS

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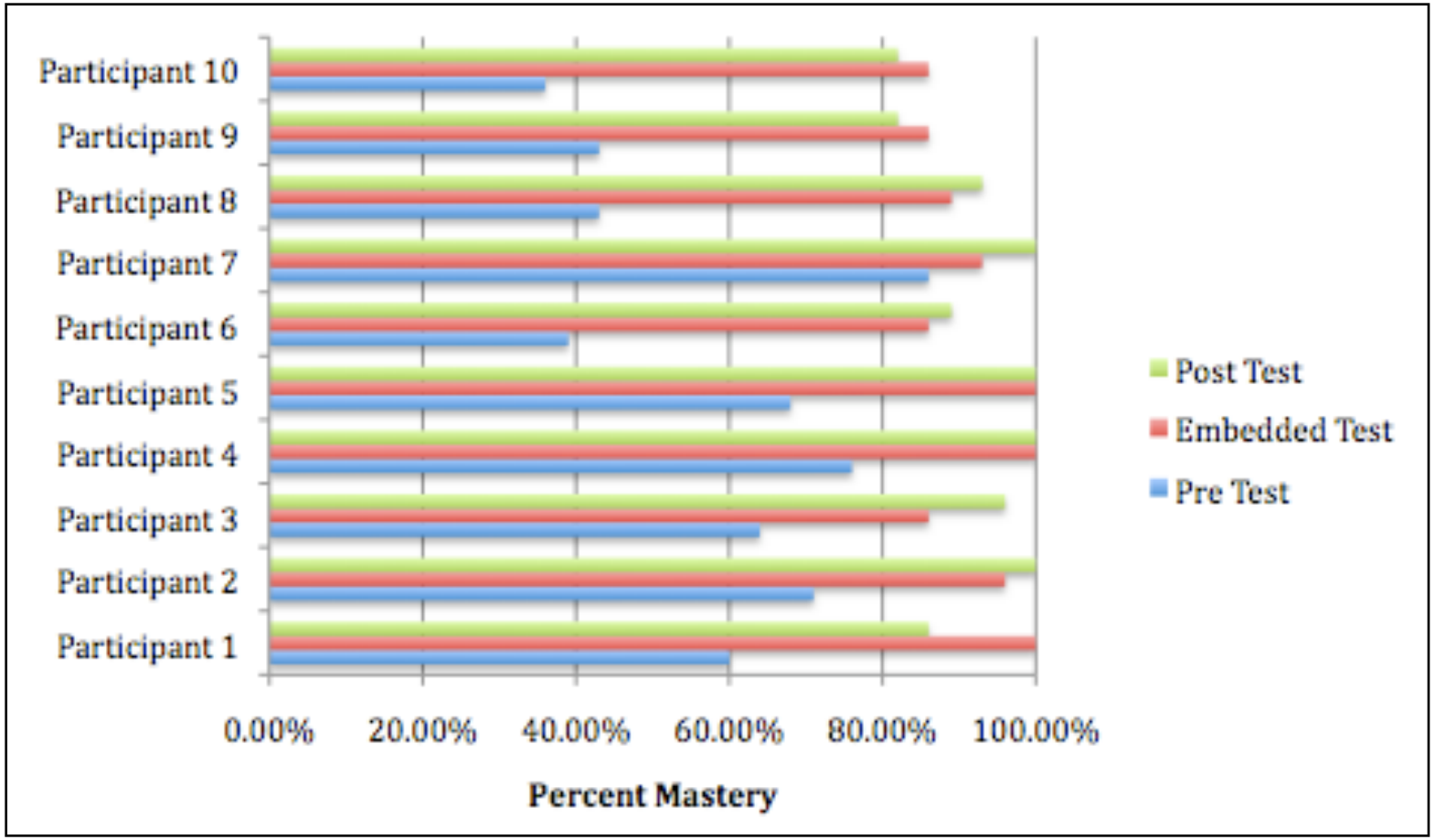
RESULTS

Pre-test: 59%
Embedded-test: 86%
Post-test: 92%
*33% in post test from the pre test.



RESULTS

Content	SA	A	N	D	SD
7. The instruction clearly explained pedagogical strategies when using SRS.	70%	30%	0%	0%	0%
8. The instruction clearly explained educational benefits of using SRS.	80%	20%	0%	0%	0%
9. The instruction clearly explained all elements of the Questioning Model and Mechanism.	70%	30%	0%	0%	0%
10. The instruction clearly explained all elements of Active Learning Strategies.	70%	30%	0%	0%	0%
11. The instruction clearly explained all elements of Backward Designing.	80%	20%	0%	0%	0%
Personal Outcome					
12. I have learned many new pedagogical strategies on how to use SRS effectively.	50%	40%	10%	0%	0%
13. I now understand there are many educational benefits of using SRS.	60%	40%	0%	0%	0%
14. I am now more likely to use SRS in my classroom.	60%	30%	10%	0%	0%
15. I feel more comfortable and confident about using SRS in my classroom.	30%	50%	10%	0%	0%
16. I feel students will be more motivated when SRS are used.	70%	30%	0%	0%	0%
17. I feel students will be more engaged in the learning process when SRS are used.	60%	30%	10%	0%	0%
18. The Interactive SRS Lesson Plan Template will help me when integrating SRS in my classroom.	50%	30%	20%	0%	0%

Open-ended questions:

- 80% of participants would recommend this project to their colleagues.
- luxury rather than a need.
- Realized the benefits and learning about the models was most valuable.
- Modules were effective, professional, and informative

Some suggestions:

- Shortening the template, making handouts less confusing, offering hands-on demonstrations and practice, and providing additional resources.

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14. I am now more likely to use SRS in my classroom.	60%	30%	10%	0%	0%
15. I feel more comfortable and confident about using SRS in my classroom.	30%	50%	10%	0%	0%
16. I feel students will be more motivated when SRS are used.	70%	30%	0%	0%	0%
17. I feel students will be more engaged in the learning process when SRS are used.	60%	30%	10%	0%	0%
18. The Interactive SRS Lesson Plan Template will help me when integrating SRS in my classroom.	50%	30%	20%	0%	0%

Open-ended questions:

- 80% of participants would recommend this project to their colleagues.
- luxury rather than a need.
- Realized the benefits and learning about the models was most valuable.
- Modules were effective, professional, and informative

Some suggestions:

- Shortening the template, making handouts less confusing, offering hands-on demonstrations and practice, and providing additional resources.

RESULTS

Content	SA	A	N	D	SD
7. The instruction clearly explained pedagogical strategies when using SRS.	70%	30%	0%	0%	0%
8. The instruction clearly explained educational benefits of using SRS.	80%	20%	0%	0%	0%
9. The instruction clearly explained all elements of the Questioning Model and Mechanism.	70%	30%	0%	0%	0%
10. The instruction clearly explained all elements of Active Learning Strategies.	70%	30%	0%	0%	0%
11. The instruction clearly explained all elements of Backward Designing.	80%	20%	0%	0%	0%
Personal Outcome					
12. I have learned many new pedagogical strategies on how to use SRS effectively.	50%	40%	10%	0%	0%
13. I now understand there are many educational benefits of using SRS.	60%	40%	0%	0%	0%
14. I am now more likely to use SRS in my classroom.	60%	30%	10%	0%	0%
15. I feel more comfortable and confident about using SRS in my classroom.	30%	50%	10%	0%	0%
16. I feel students will be more motivated when SRS are used.	70%	30%	0%	0%	0%
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CONCLUSION

- The responses from the attitudinal surveys and the results from the pre, embedded, and post test are evidence of the module's positive influence in increasing teacher motivation and proficiency of implementing SRS.
- The results of the attitudinal surveys supports the hypothesis that participants believe that using SRS in the elementary classroom environment can improve feedback to students, improve the learning environment, and enhance learning and engagement.

CHALLENGES

- Determining prior knowledge of lesson planning.
- Limited software = recording, editing, and converting files became problematic.
- Determining the content
- Fitting in all objectives

FUTURE CONSIDERATIONS

- Live demonstration
- Hand-on learning
- Eliminate some objectives
- Hire a more advance design team and use sophisticated software

THANK YOU!

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http://etec.hawaii.edu/proceedings/masters/2010/