CAN PEERS IMPROVE PERFORMANCE? AN INVESTIGATION OF THE THINK-PAIR-SHARE TEACHING STRATEGY

Quentin Hartmann, PhD
Department of Psychological Sciences,
Faculty Development Day
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Cueing Thinking in the Classroom: The Promise of Theory-Embedded Tools

Thinking tools bring sound instructional theory into the classroom in a practical form that students and teachers both enjoy using.

Education Leadership (1988)

Think – Pair - Share

Head Signals

Listen

Think

Pair

Share
GOAL 1: IMPROVE WRITING

GOAL 2: TEST T-P-S
THINK

Lecture on research questions

Write a research question about your topic
- 5 min
- Draft 1

Experimental Group (n=15)
PAIR activity in class 15 min, rewrite; share out loud

Draft 2

Control Group (n=15)
Work alone in class 15 min, rewrite; share out loud

Draft 2
Lecture on research questions

Write a research question about your topic
5 min
Draft 1

Experiment Group (n=15)

Control Group (n=15)
Lecture on research questions

Write a research question about your topic
5 min
Draft 1

Experiment Group (n=15)

Control Group (n=15)

activity in class 15 min,

Work alone in class 15 min

PAIR
Lecture on research questions

Write a research question about your topic (THINK) 5 min Draft 1

Experimental Group (n=15)

PAIR activity in class 15 min,

Control Group (n=15)

Work alone in class 15 min

REWRITE; read out loud Draft 2

REWRITE; read out loud Draft 2
Lecture on research questions

Write a research question about your topic (THINK)
5 min
Draft 1

Experimental Group (n=15)
PAIR activity in class 15 min,
REWRITE; SHARE out loud
Draft 2

Control Group (n=15)
Work alone in class 15 min
REWRITE; SHARE out loud
Draft 2
PART 2: Post test—After they have conducted research all semester

- Write a research question extending your topic (THINK) 5 min Draft 1
- PAIR activity in class 15 min
- Work alone in class 15 min REWRITE
- SHARE out loud Draft 2

Issues: Did not teach HOW to peer review (i.e., PAIR successfully)!!!
2 OBJECTIVE MEASURES OF THE RESEARCH QUESTIONS

<table>
<thead>
<tr>
<th>Question</th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the research question stated as a question?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Is the question testable?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Is the dependent variable apparent in the question?</td>
<td>0</td>
<td>1</td>
</tr>
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<td>0</td>
<td>1</td>
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</tbody>
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Total Score (0-4) ______
STUDY 1: PERCEIVED CONFIDENCE IN WRITING
RQS

Pre & Post the mini-lecture + TPS/TS

1. What is your confidence in writing a testable research question on your own?
   1 2 3 4

2. What is your confidence in writing a testable research question with a peer?
   1 2 3 4

   [Total Confidence (2-8)______]

3. Describe your strengths in writing a research question.

4. Describe your weaknesses in writing a research question.

5. Has your ability to write a research question changed over the course of this semester? (Gotten better worse, stayed the same?)

6. What have you learned this semester about research through engaging in an original research project?

7. What have you learned this semester about yourself through engaging in an original research project?
All assessments by blind coders familiar with research methods in psychology.
#Thispsychmajor wants to fight for social and civil rights through service in the legal system.

#ThisPsychMajor is going to teach your children that self-fulfillment social expectations = HAPPINESS.

#ThisPsychMajor hopes to help reduce suicide and increase worker productivity and job satisfaction.

#Thispsychmajor geeks out over p-values.

#ThisPsychMajor plans to be a Genetic Counselor.