

## Rotating Stations: Problem and Purpose and Question, Oh My!

<b>Prerequisite Knowledge</b>	<ul style="list-style-type: none"> <li>• The purpose of research and evidence-based practice in nursing</li> <li>• The types of research that generate evidence for nursing practice</li> <li>• The steps of research in nonexperimental and experimental designs</li> </ul>
<b>Learner Setting</b>	Classroom
<b>Strategy Type</b>	Small group
<b>Time</b>	<p>Faculty prep: &lt;5 minutes</p> <p>Delivery with students: 45 minutes</p> <p>Evaluation: 15 minutes</p>
<b>Learning Objectives</b>	<ul style="list-style-type: none"> <li>• To critically appraise the problems, objectives, hypotheses, and variables in studies.</li> </ul>
<b>Materials/ Resources</b>	<p>Markers and whiteboard (or large sheets of paper attached to walls or easels)</p> <p>Instructor-generated example (see below)</p> <p>Sample classroom diagram (see below)</p> <p>Critique questions (see below)</p> <p>Photos of student examples (see below)</p>
<b>Strategy Overview</b>	<p>The purpose of this strategy is to provide students with an opportunity to practice their understanding of the connections between various elements found in a research report (research problem, study purpose, objectives/aims, research question, and hypothesis). Through a collaborative small group activity, students rotate through various “stations” in the classroom and create their own research problems,</p>

	<p>purposes, etc. and then critique the student-generated examples. The instructor circulates among the groups during the course of this activity, providing clarification and feedback but not always correction, leaving the groups something to critique and discuss. Groups then answer a set of critique questions using the example at their final station. Groups share their critiques and impressions of the learning experience with the whole class.</p>
<p><b>Steps</b></p>	<ol style="list-style-type: none"> <li>1. Demonstrate an example that begins with a broad topic and progresses through research problem, purpose, objectives/aims, question, and hypothesis</li> <li>2. Take class suggestions or simply provide students with a broad research topic (i.e. nursing education)</li> <li>3. Divide students into small groups and assign each group a beginning station at the whiteboard.</li> <li>4. Each group generates a research problem based on the overall topic.</li> <li>5. The instructor circulates to provide clarification and feedback and then directs each group to move to the next whiteboard station.</li> <li>6. Each group generates a study purpose based on the research problem that is already written at this station.</li> <li>7. The instructor circulates to provide clarification and feedback and then directs each group to move to the next whiteboard station.</li> <li>8. Each group generates a study objective or aim based on the problem and purpose that are already written at this station.</li> <li>9. The instructor circulates to provide clarification and feedback and then directs each group to move to the next whiteboard station.</li> </ol>

	<p>10. Each group generates a research question based on all the information already written at this station.</p> <p>11. The instructor circulates to provide clarification and feedback and then directs each group to move to the next whiteboard station.</p> <p>12. Each group generates a hypothesis based on all the information already written at this station.</p> <p>13. The instructor circulates to provide clarification and feedback and then directs each group to move to the next whiteboard station.</p> <p>14. Now, at the final station, groups complete the critique questions in their small groups.</p> <p>15. The instructor facilitates a class discussion of the critique questions and lessons learned from this assignment that can be applied to critiquing research articles.</p>
<p><b>Evaluation</b></p>	<p>Low stakes - Instructor feedback during class activity and/or credit for active participation</p>

### Rotating Stations: Instructor-generated Example

Topic: A broad area that includes many potential research problems

Example: Side effects of chemotherapy

Problem: An area of concern within the broad topic of interest

Example: Nausea and vomiting are common side effects among patients on chemotherapy, and interventions to date have been only moderately successful in reducing these effects. New interventions that can reduce or prevent these side effects need to be identified.

Purpose: A summary of the overall goal of the study

Example: The purpose of this study is to test an intervention to reduce chemotherapy-induced side effects

Objectives/aims: The specific accomplishments the researchers hope to achieve through this study

Example: The objective of this study is to develop and implement two alternative procedures for administering antiemetic therapy for patients receiving moderately emetogenic chemotherapy (patient-controlled versus nurse-controlled).

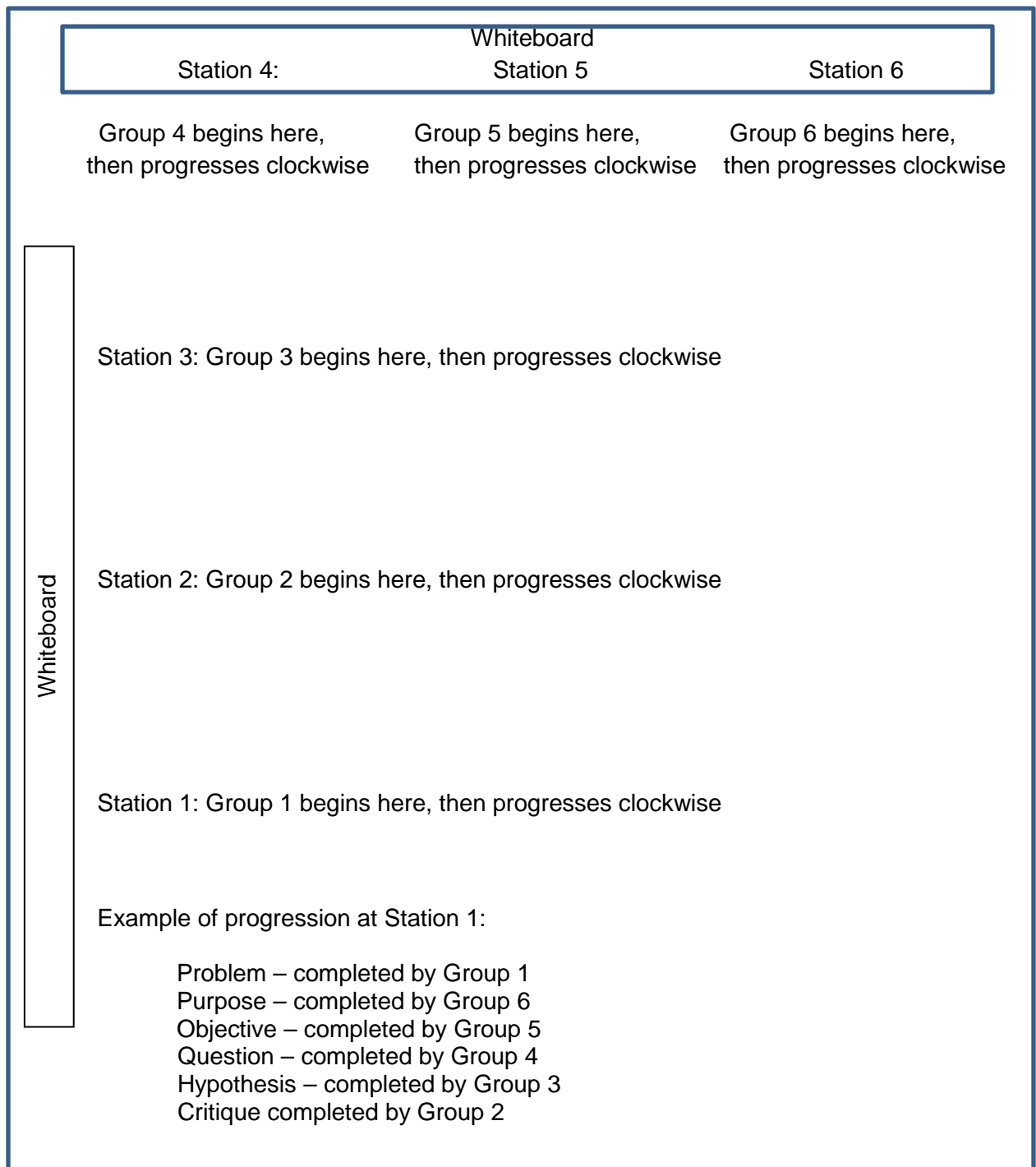
Question: The specific question the researchers hope to answer in addressing the research problem

Example: What is the relative effectiveness of patient-controlled antiemetic therapy versus nurse-controlled antiemetic therapy with regard to (a) medication consumption and (b) control of nausea/vomiting in patients on chemotherapy?

Hypothesis: A statement of predicted relationships between variables

Example: Subjects receiving antiemetic therapy by a patient-controlled pump will (1) be less nauseated, (2) vomit less, and (3) consume less overall medication than subjects receiving the therapy by nurse administration.

Rotating Stations: Sample classroom diagram

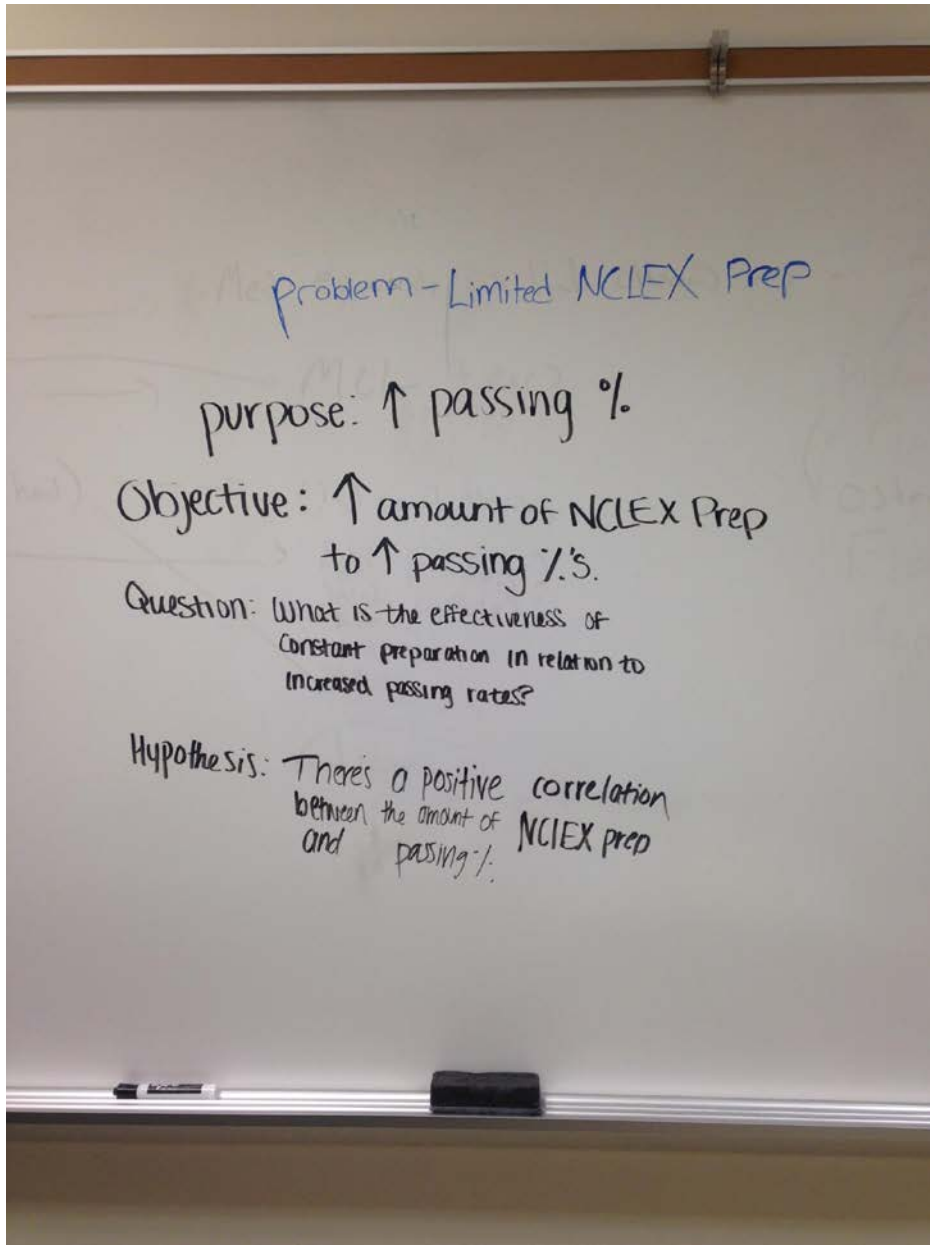


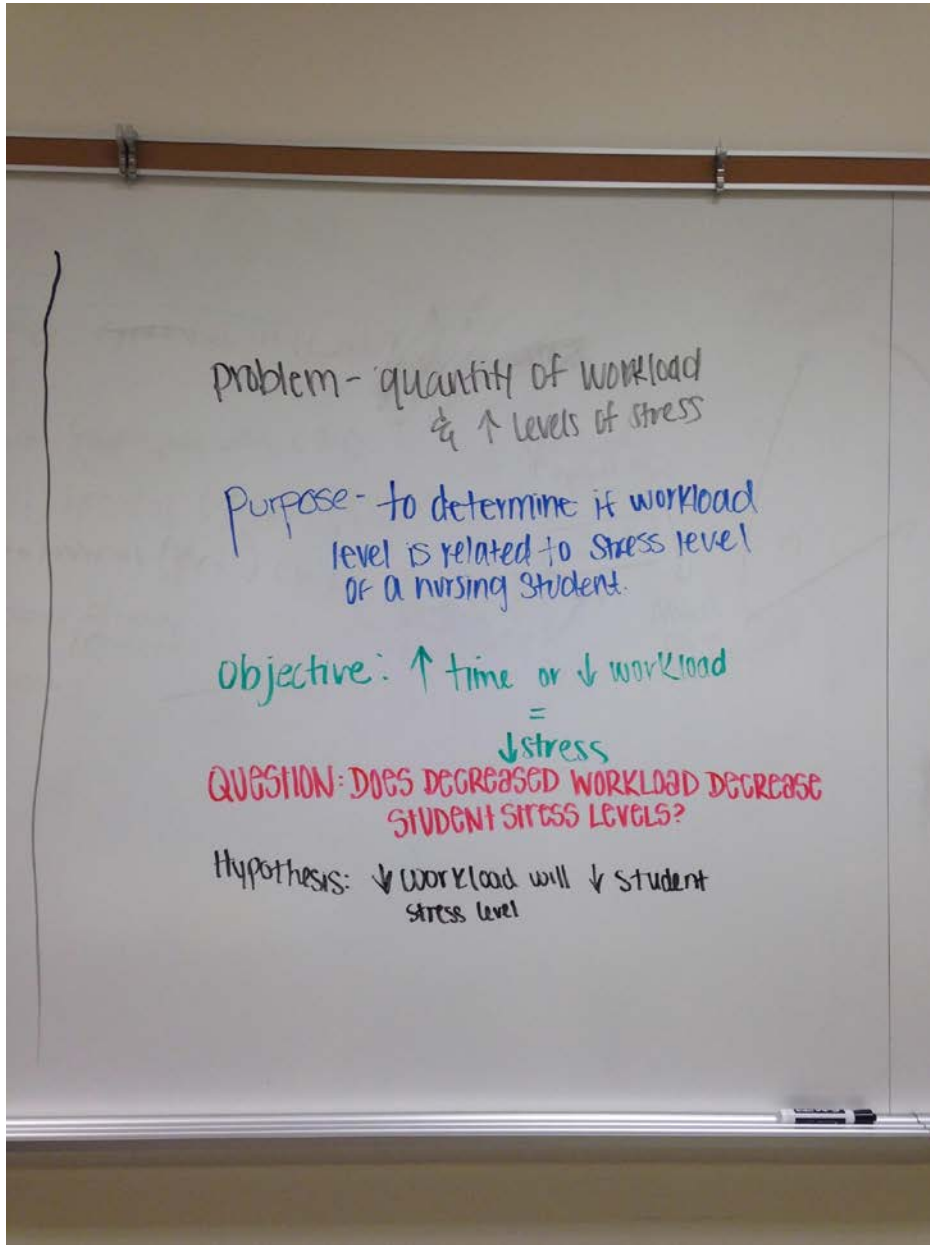
### Rotating Stations: Critique questions

Now that you've completed your rotation through the room, consider the following questions for your current station. I'll ask each of the groups to share an answer with the class.

1. Is the problem clear and concise?
2. Does the purpose express the goal/focus of the study?
3. Is the objective/aim based on the study purpose?
4. Does the question direct the type of data that will be collected?
5. What type(s) of hypothesis is it?
6. Does the hypothesis identify the relationships among the variables in the study?

Rotating Stations: Photos of student examples







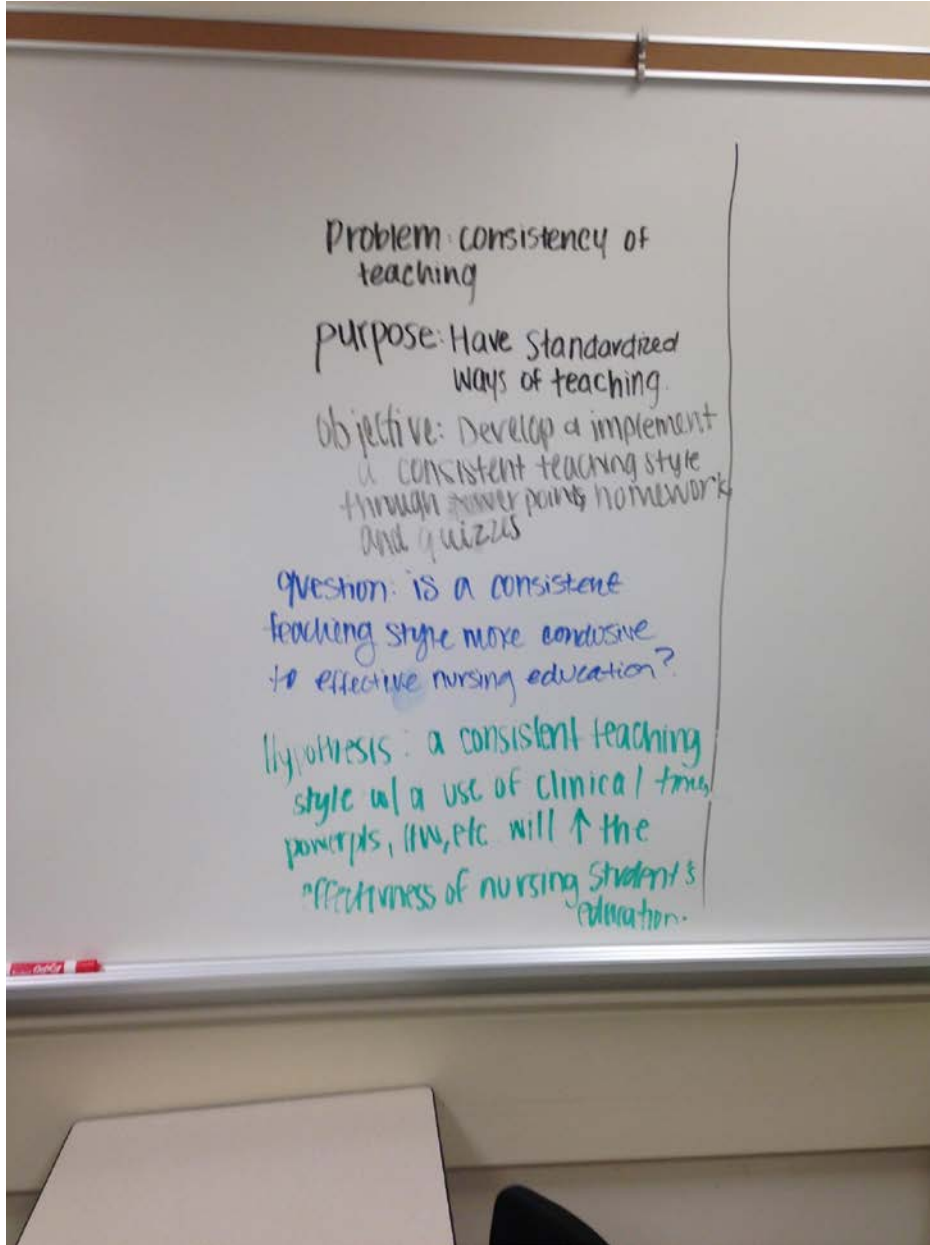
problem: High demand of school  
and priorities of life (job, kid, ect.)

The purpose of this study is to find a reasonable balance  
between school work and other obligations

objective: find a reasonable workload that  
is beneficial for students, and allows balance w/ other priorities/obligations.

Q: What would be considered a decent amount of  
workload to balance w/ personal obligations?

H: STUDENTS LIMITED TO 10 CREDITS/SEMESTER  
CAN BETTER BALANCE WORKLOAD W/ PERSONAL OBLIGATIONS



## TOPIC: NURSING EDUCATION/

PROBLEM: FINANCIAL BURDEN  
(TEXTBOOKS, ACCESS CODES)  
CLINICAL SUPPLIES

Purpose: Test significance of materials needed  
to reduce costs for students.

Objective: Develop payment plans to  
make expenses more affordable.

question: Can we develop multiple  
payment plans to accomodate  
different student needs?

hypothesis: A payment plan for students  
paying out-of-pocket  
is more effective than than  
the other payment plans

