

Lesson Study in Psychology: Students' Understanding of How Beliefs and Context Influence Motivation for Learning

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BACKGROUND

Course: Educational Psychology

Student Learning Goals

Discipline based goal

For students to understand the relevance of and apply motivation theories to their roles as future teachers and current students.

Lesson-specific goals

For students to be able to:

1. Identify and describe the different achievement goal orientations (performance vs. mastery).
2. Understand how goal orientations affect performance, motivation, etc. and relate to other motivation constructs (e.g., self-efficacy, attribution theory).
3. Develop strategies to foster optimal orientations in their roles as future teachers and current students.

The Lesson gave students *firsthand* experience of classroom conditions that affect motivation for learning so that they would be better able to map abstract theoretical concepts onto personal experience.

THE LESSON

Major Steps

1. Students participated in an experiment in the classroom in which we manipulated task difficulty and goal orientations
 - a. Students received one list of five anagrams that was either **easy** (PINES, SLIME, etc.) or **impossible** (ORANGE, TULIP, etc.). All students got the same difficult final anagram (CINERAMA)
 - b. Students read one set of instructions that either gave a **mastery goal** (to improve over time) or **performance goal** (to be compared to their peers).
2. Students worked individually and raised their hands when they solved each anagram. (See example [video](#).)
3. After the activity, students responded to questions about their thoughts/emotions, enjoyment, ability, confidence, etc.
4. In a class discussion, the instructor revealed the differences between students' lists and instructions. Students reflected on the effects these differences may have had on them.
5. In small groups students completed a worksheet predicting the effects of the goal orientations and task difficulty on performance, enjoyment, persistence, self-efficacy, etc.
6. Finally, the worksheet was discussed as a class, differences explained, and connections made to the activity and teaching.

THE STUDY

Approach

We collected and analyzed data from students' responses to the activity, their performance on the activity, their completion of the goal orientation worksheets, post-activity exam/quiz scores, and faculty observations.

Key Findings

- Students' open-ended responses indicated increased understanding of
 - Effects of goal orientations
 - Complexity of motivation issues
 - Influence of environmental & individual factors on motivation
- Post-Activity Exam/Quiz scores averaged 84% and 91%
- Differences emerged depending on group assignment
 - Lesson most powerful for **performance- impossible** group which most likely experienced learned helplessness, and least effective for **mastery-easy**
 - **Impossible** list groups rated lower enjoyment, perceived ability, and desire for future challenges
 - **Performance-impossible** group reported lowest enjoyment and ability, and more pressure from social comparisons and time constraints

ANAGRAM LISTS & INSTRUCTIONS

“Easy” List:

PINES
SLIME
LEMON
BAKER
CINERAMA

“Impossible” List:

ORANGE
TULIP
WHIRL
SLAPSTICK
CINERAMA

Mastery Instructions:

Some research shows that the ability to solve anagrams can be improved through practice. The purpose of this activity is to give you practice with solving anagrams and to see how your own ability improves over time. When the instructor tells you, flip to the next card and solve the anagram. Write the answer in the space provided and raise your hand as soon as you have the answer.

Performance Instructions:

Some research shows that the ability to solve anagrams is a sign of general intelligence. The purpose of this activity is to give us a sense of how good you are at solving anagrams compared to your peers. When the instructor tells you, flip to the next card and solve the anagram. Write the answer in the space provided and raise your hand as soon as you have the answer.