

A Different *Form* of Motivation: Using a Non-Traditional Application Approach to Teaching a Traditional Lesson in Concrete



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Introduction

Coursework in agricultural mechanics is an integral component of the teacher preparation program for preservice agricultural education teachers at Oklahoma State University (Oklahoma State University catalog, 2020).

Coupling basic concrete calculations skills (e.g., ratios, proportions, area, volume) with an experiential learning component, preservice teachers can broaden the context in which they apply STEM curriculum within their future classrooms.

To increase the *relative advantage* (Rogers, 2003) of traditional concrete concepts for preservice teachers, a concrete jack-o-lanterns project was introduced as a non-traditional context for applying a traditional concrete lesson.

Materials Needed

1-inch square tubing
\$0.88/foot

All-Purpose Gravel (50lb sack)
\$4.24/sack

Portland Cement (92lb sack)
\$11.05/sack

Play Sand (50lb sack)
\$4.45/sack

Plastic jack-o-lanterns
\$1/jack-o-lantern



Response to the Innovation

"It made me participate more because it was a fun activity verses doing the same thing over and over."

"The pumpkins were definitely the motivator to participate."

"I was able to understand the concrete [lesson] more so because I was able to see why it's important to properly mix the ingredients."

