

# PEER-LED TEAM LEARNING LEADER TRAINING

## Adapting the ‘Three Man’ game scenario as a collaborative learning strategy in chemistry

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### Introduction

One continuing difficulty is in engaging students to effectively participate because of wide variance in abilities. An effective way to keep students’ involvement at a maximum is to use competition in the form of a game. The origins of the Three Man Game come from a common thinking pool, the college party. ‘Three Man’ can be applied to any subject, using two dice and two decks of questions: one deck being fast paced, concept based questions, the other deck containing problem solving and strategy based questions.

### Materials and Methods

Two dice are needed along with two decks of cards.

One deck of cards is quick-answer and based on concepts

The second deck of cards contains more comprehensive problems.

### Object of Game

The object of the game is to have the lowest score. A player collects points against himself by either running out of time, or giving an incorrect answer.

### Rules of the Game

The dice are passed in one direction, each person taking turns rolling.

The first person to roll a **three** (any combination involving three dots on the dice) becomes the three man, thereafter must answer questions from the quick concept based stack every time a three is rolled until they roll out (roll another three).

If a **seven** is rolled by a player, the person sitting **to the right** must answer a question from the problem solving deck.

If an **eleven** is rolled the person **to the left** must answer from the problem solving deck.

If a **nine** is rolled, a question is drawn from the problem based deck and **everyone** in the circle must answer in a timely manner because the last to answer gets a point against.

If **doubles** are rolled by a player, the player must pick two players to face off on a question from the problem solving deck. The player to come up with the answer last receives the point.



### Advantages to the 'Three-Man' learning strategy

- Comprehensive learning
- Can be applied to any subject
- Competitive and pressure performance in a fun environment
- Statistically students do better when tested if more problems are solved in practice
- Improves students of all abilities by repetition and demonstration
- MOTIVATION!!

Learning strategies like "Three man" help keep students engaged and task oriented in a fun competitive environment.

### Background

Peer-Led Team Learning (PLTL) is a collaborative pedagogical strategy achieving positive results in student learning gains. The 'Plus Two' format at UTEP replaces one hour of lecture with two hours of PLTL Workshop: small group, team based, active learning sessions integrated with lecture. Plus Two PLTL has increased the C-or-better passing rate from 53% to 74% in first-semester general chemistry here at the University of Texas at El Paso since 2000.

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