# Retrograde Problem Solving

<table>
<thead>
<tr>
<th>TIME</th>
<th>50 Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEME</td>
<td>Problem Solving</td>
</tr>
<tr>
<td>LEARNING OBJECTIVES</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

## PROCEDURES

### Activity 1: Whole Class (10 Minutes)

1. Introduce topic: Successful entrepreneurs view problems as opportunities. A majority of the most successful startups are the most obvious ideas. They are the companies that have become so ingrained in our world that you can’t imagine how life existed without it. If you believe that every problem has been solved, every industry has been disrupted, and every idea has been attempted, you haven’t dug deep enough. Once you identify a problem, do something about it because the experimental process could be the start of something life changing.
2. Use Retrograde Problem Solving PowerPoint to guide along activities.
3. Show Maurice Ashley Ted x Working Problems Backwards Video (6:00)

### Activity 2: Small Groups (25 Minutes)

4. Divide class into groups and pose each group a different retrograde problem using these handouts: Monkey Business problem, Tic-Tac-Toe problem, Brain Basher Problem 1, and Brain Basher Problem 2.
5. Give hints along the way if needed using the answers that are provided on the websites.

### Activity 3: Whole Class (15 Minutes)

6. Discussion Questions: 1) What other problems in your life could you use retrograde analysis to find solutions? 2) Do you think entrepreneurs use this model of problem solving? Give examples. 3) Do you think entrepreneurs are born with this innate way to solve problems or can entrepreneurs be trained to think this way?
7. Show Engaged Scholarship video (3:20) which defines what ES is and gives examples.
8. Show Resources for Finding Engaged Scholarship Opportunities.
9. Hand out Adventure Assessment, students complete, and collect.

## MATERIALS

- Computer & projector
- 3 Sample Problem Handouts
- 3 Answer Sheets
- Assessment sheets

## ADDITIONAL RESOURCES

- As Entrepreneurs – Our Job is to Solve Problems, How do Entrepreneurs Think About Problems?

## ACKNOWLEDGEMENT

- Penn State’s Entrepreneurship & Innovation Minor Staff