A Tool and Process for Helping Quality Teams Learn Important Lessons to Aid Their Effectiveness

Paul Tesluk

School of Management
University at Buffalo The State University of New York
Center for Leadership and Organizational Effectiveness
Teamwork can result in…

- **Tremendous successes** – case in point: **Apollo 13 Tiger Team**
  - Lunar-landing space mission that experienced a potentially catastrophic oxygen tank explosion
  - Flight director, Gene Kranz, led a **tiger team** that devised and executed a plan that safely returned the Apollo 13 astronauts to earth

  "Houston, we have a problem"

  "Failure is not an option"
Teamwork can ALSO result in...

- **Utter failures** – case in point: President Kennedy’s foreign policy team and the Bay of Pigs Fiasco
  - Kennedy’s foreign policy team accepted a fundamentally flawed CIA plan to invade Cuba in 1961
  - Bad decision influenced by “groupthink”
    - Example of groupthink at work:

  *RFK was quoted as approaching Schlesinger and saying: “You may be right or wrong, but the President has made up his mind. Don't push it any further. Now is the time to help him all we can.” Schlesinger stopped his usual role as devil's advocate and critic and began to sanction his own challenges.*
Teamwork and Quality

• What are keys lessons that can help quality improvement teams perform most effectively?
The Marshmallow Challenge
Challenge: Have your team build the tallest *freestanding* structure using

- 20 sticks of spaghetti
- One yard of tape
- One yard of string
- One marshmallow

- *Entire* marshmallow must be on top: height is measured from top of table to top of marshmallow
- Use as much or as little of kit as you need
- You may break up spaghetti, string, or tape
- Challenge lasts 18 minutes
Lesson One:
The Importance
Experimentation &
Prototyping
Typical Progress

Start

18 minutes
Typical Progress

Start 18 minutes
Orient
Typical Progress

Start 18 minutes Orient Plan
Typical Progress

Start 18 minutes

Orient Plan Build

18 minutes
Typical Progress

Start 18 minutes Orient Plan Build Ta-Da!
Typical Progress

Start 18 minutes

Orient Plan Build Oh-No!
What type of team consistently shows poor performance?
MBAs
What type of team consistently shows Great Performance?
Kindergarteners
Why?

Fail

Win
Start

18 minutes
• Find the best plan & execute
• Focus on the structure

• Focus on the marshmallow
• Play, prototype, experiment

Start → 18 minutes

Prototype → Refine
Lesson Two: The Importance of Facilitation
Bar chart showing:
- Average: 20
- Business School Students: 5
Lesson Three: The Importance of Incentives & Experience
Average Team Performance

Teams

1 2 3 4 5 6 7 8 9 10
Incentive

Teams

1 2 3 4 5 6 7 8 9 10

Marshmallow Challenge
PAY TO THE ORDER OF
TEN THOUSAND DOLLARS
IN THE AMOUNT OF

$10,000

Authorization
Incentivized Performance

Four Months Later...
Incentivized Performance

Teams

1 2 3 4 5 6 7 8 9 10
Incentives + Experience

Teams

1 2 3 4 5 6 7 8 9 10
For More Information...

Marshmallowchallenge.com

• Website created by Tom Wujec

Thank you!

Paul Tesluk
ptesluk@buffalo.edu