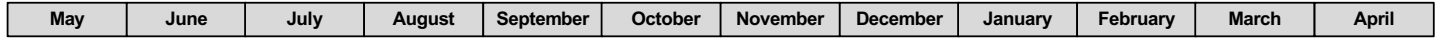


Reflective Exercises to Bridge the Gap in a Two-Term Industrial Engineering Capstone Sequence

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The Problem: Gap, sometimes long, between Capstone 1 and 2. Will students lose momentum?



The Concept: Reflective exercises before and after gap. Will they help? Will differences be revealed between long and short gaps?

LAST DAY OF CAPSTONE 1:
 [Pretend] It's Day 1 of Capstone 2!
 • What are you going to do?
 • What will prevent a successful day one?
 • What will motivate you to succeed? (what is really cool about your project)

REFLECT ON CAPSTONE 1
 PLAN FOR CAPSTONE 2

FIRST DAY OF CAPSTONE 2:
 • How's it going?
 • Get work done since Capstone 1?
 • Ready to go now?
 Answer on Likert "Smiley" scale:

REFLECT ON GAP TIME
 PLAN FOR CAPSTONE 2

Fill out SWOT matrix

Strengths	Weaknesses
Opportunities	Threats

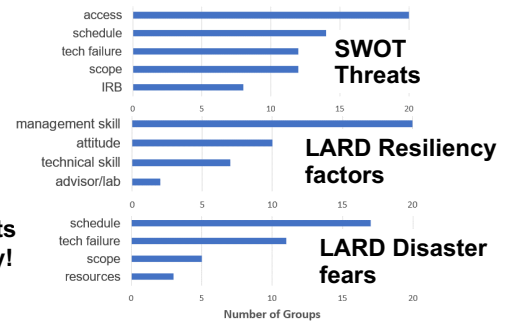
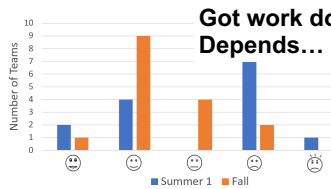
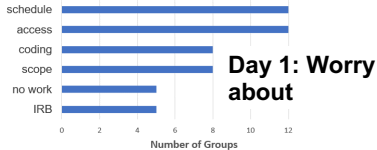
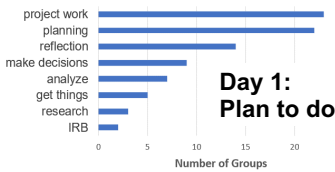
Derive LARD matrix

Resiliency	Awesome
Lameness	Lameness
Resiliency	Disaster
Disaster	Opportunities

REFLECT ON TEAM CAPABILITIES
 PLAN TO AVERT DISASTER?

The Experience: 2 academic years, 30 projects, 133 students
 Social events – goodbye/welcome back atmosphere
 Group work – respond to questions, share with class, record on-line

The Results: High energy level and involvement! and lots of data...



What did we learn?

- Positive environment – students enjoyed it, preserved/revived energy
- Students made realistic assessments of what they needed to do
- Bimodal nature of long gap work (they did, or did not, do it)
- Rested and ready effect (long gap students felt *more* ready on return)

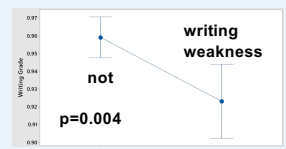
Correlations to outcomes

- Few! Many factors had no statistical correlation to success
- Writing as a weakness, and having BOTH Tech Fail and Schedule as disaster fears correlated with problems – watch for in the future!

Thanks!

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Writing as a SWOT weakness vs Writing grade



Schedule AND Tech Fail LARD disaster fears vs Project grade

