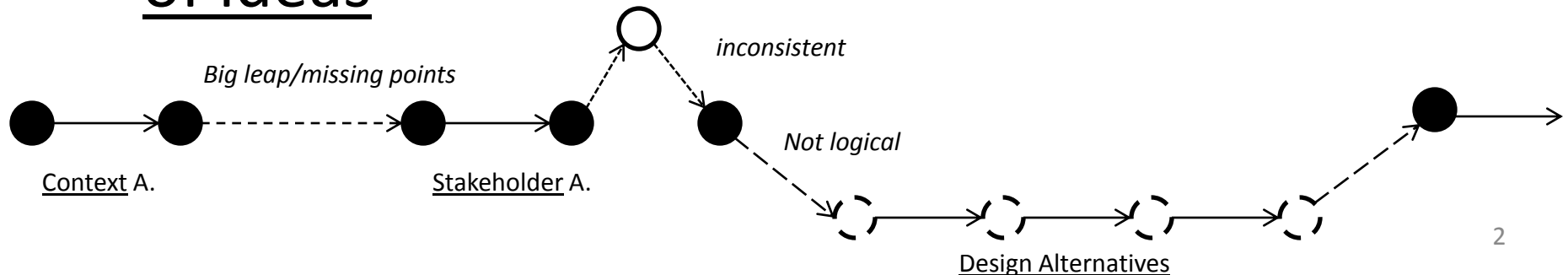


SYST 490

Fall Semester Debrief
Evaluators Scores/Grades
2011

Congratulations!

- Overall, good “project proposal” briefings.
- Communication skills – outstanding
- Slide preparation – very good
- Technical content and project planning – good, but problems with completeness, consistency, and logical/linear communication of ideas



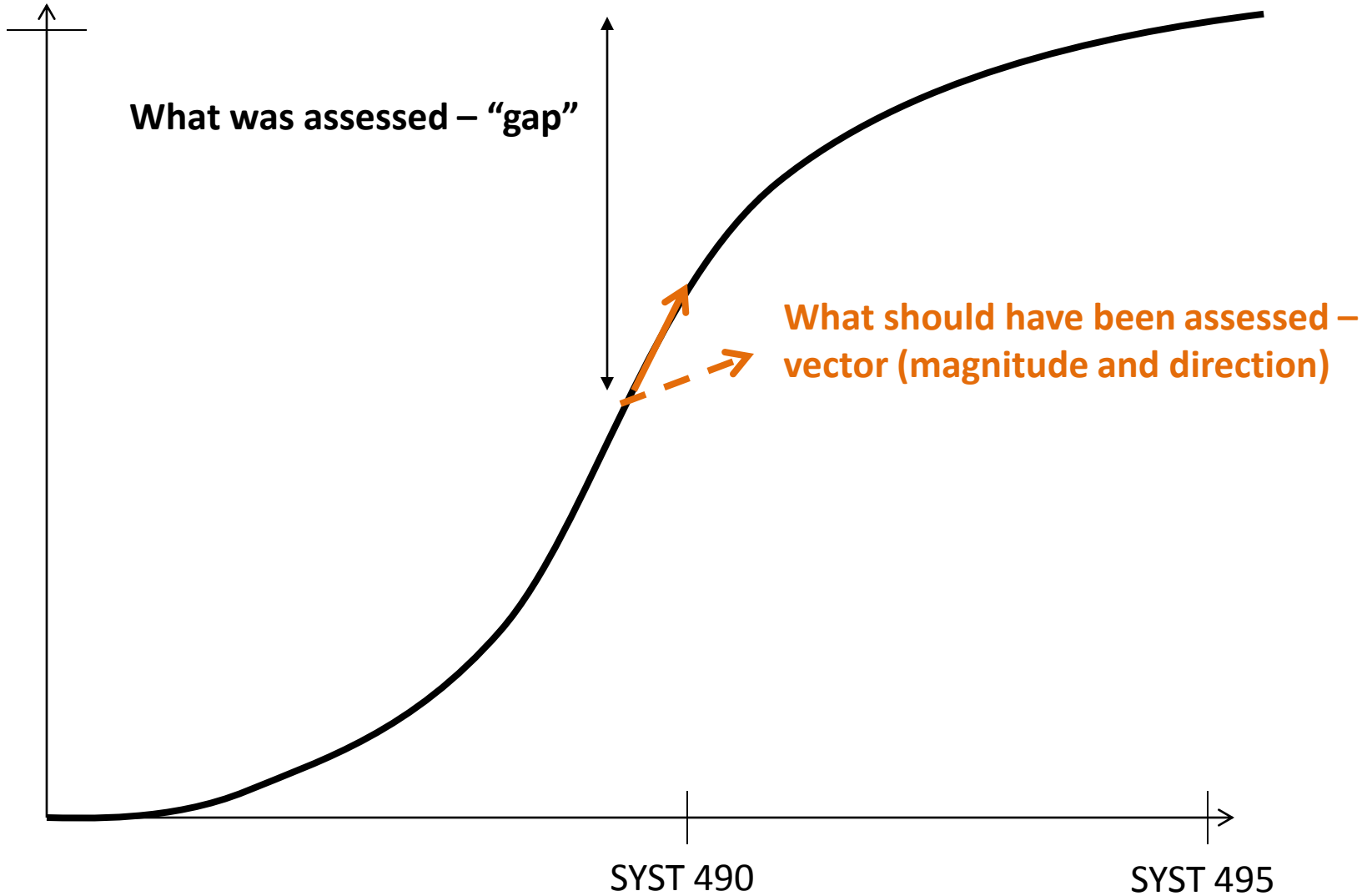
System Engineering is all
about finding the
problems/faults before
the system is built and
fielded

Feedback from stakeholders,
crowd-sourcing, focus
groups, SME is critical to
success

(need to be “thick-skinned”)

**“Adversity breeds
success”**

Quality, Completeness, Consistency



Evaluator Scores

Team	Evaluators Score	Grade for Scores	Std Dev
AQ	86%	B	8%
T&E TSO	79%	C+	10%
EM	78%	C+	13%
HCA	72%	C	13%
GHG/CAN	71%	C	12%
SpExp	71%	C	13%

Overall Grades

Team	Evaluators Score	Letter Grade for Score	Std Dev	Overall Grade	Letter Grade for Overall Grade	Std Dev
AQ	86%	B	8%	93%	A	2%
T&E TSO	79%	C+	10%	90%	A-	4%
EM	78%	C+	13%	89%	B+	5%
HCA	72%	C	13%	87%	B	4%
GHG/CAN	71%	C	12%	84%	B	8%
SpExp	71%	C	13%	85%	B	6%

Perceptions of Faculty, Sponsors, and Judges

- These are perceptions
 - Perceptions not consistent between all evaluators
- Not all perceptions are valid
 - Depends on evaluators background, biases, etc.
- Take all comments into consideration
 - All system engineering projects have multiple stakeholders/clients.
 - Need to practice listening and taking all view points into consideration.

SpExp

- “what is output of this project? Stepping stones, ROI?”
- “it is not clear what sponsor gets from this project”
- “what will actually be done on this project”
- “what is value to project of model demonstrated?”
- “can all these models be buildtand analyzed in the remaining time”

- “Some charts hard to read”
- “Presenters are reading from slides”
- “Q&A performamnce not good”

- PD:
 - “reduce scope”
 - “scope too large”
 - “not coherent leading to design tradeoff”
 - “not clear”
- NS:
 - “A lot of stakeholders with conflicting needs. Did not show how solution addressed”
 - “not clear”

- MReq:
 - “How will costs be measured”
 - “needs more refined reqs’

 - **“You are selling a solution”**
 - **“This is not objective analysis”**

 - “Did not distinguish between operational reqs and technical reqs”
- DA:
 - “Did you consider earth-based alternative”
 - “what are the design alternatives”
- M/DOE:
 - “quality/fidelity of results?”
 - “DOE not described”
 - “Aggressive modeling plan. Is this doable?”
 - “what about risk? What about optimistic vs pessimsitic vs most likely”

AQ

- Q&A:
 - Confusion between “pollutants” and “excess nutrients”
- PD:
 - “not clear where quantifiable goals come from”
- MR:
 - “reqs specified but not related to context/assumptions”
- DA:
 - “not clear. Are they design alternatives or independent variables”
 - “needs more work”
 - “could have been more clearly defined”
- M/DOE:
 - “clean presentation of simulation”
 - “what is new from last year – nothing”
 - “cost model is confusing”
 - “they actually did a DOE”
 - “did not explain Monte Carlo runs/replications ...”
 - “not clear what recommendations will be given to sponsor?”

HCA

- PD:
 - “lots of interesting information but did not show any details of defined scope “single facility””
 - “identified scope = single facility, but provided no model of operation of facility – THIS IS A BIG FLAW”
 - “team has not worked to adequately scope project”
- NS:
 - “stakeholder [description] is confusing”
 - “not sure who the key stakeholder is ? Who is the client/user of these results?”
- MR:
 - “too many undefined terms”
 - “implementation EMR slides has two different cost numbers for same thing”
 - “could not see relationship to all those context slides”
- DA:
 - “did not provide alternative designs”
- M/DOE:
 - “model does not relate to design problem”
 - “probability formulas are weird”
 - “need to emphasize model assumptions”
 - “how does model answer problem definition questions’
 - “a value hierarchy would be useful for this project”
 - “how will model be validated””
 - Did not show any experimental design”
 - “where does data come from”
- Comm:
 - “some charts/tables too difficult to read”
 - “slides color combinations not readable” (e.g. 52)
- “Unprofessional to bash customer n public briefing”
- “this team seems to blame others for their problems”
- “team does not seem to realize that it is their job to scope the project”

T&E TSO

- Q&A:
 - “Markov assumption”
 - “why model and not just assess”
- PD:
 - “provide some videos of made and missed calls. Emphasize speed and dynamics”
 - “needs coherent description of how sponsor will use”
- NS:
 - “is 80% accuracy arbitrary”
- Mreqs:
 - “not clear”
 - “need to tie mission, function, design reqs”
 - “metrics not well defined”
- DA:
 - “did not see clear set of design alternatives”
- M/DOE:
 - “what is new about this simulation. Recoding, why?”
 - “how will model be validated?”
 - “how will sim output be used?”
 - “how will sponsor use results”
- “not clear definition between problem stated and results of simulation. I think this is just a communication problem”
- “Goal of project is to predict how well referees will perform at higher level of play?”
- “is’nt it obvious. Only referee with best profile will succeed”
- “Questionable whether model can improve assessment”

GHG/Carbon Neutral Airport

- Q&A:
 - “what is the purpose of this project? Build a tool or design a carbon neutral airport”
 - “if carbon neutrality, what proposal to remove carbon?”
 - “decimal places”
 - “37K carbon?”
 - “who is the client for this project”
- PD:
 - “presentation did not present work clearly”
 - “team is not clear about goals of project”
- NS:
 - “great stakeholders interaction diagram”
- MR:
 - “reqs qualitative?”
 - “confusing”
- DA:
 - “what is alternative for removing carbon”
 - “are alternatives independent”
- M
 - “discussion of model too shallow”
 - “how are you going to use the model”
 - “what data will be used?”
 - Value hierarchy includes cost. Not appropriate”
 - “glad to see test and validation”
 - “is this analysis deterministic or stochastic. Where are random variables?”
 - “DOE very sketchy”
- “this project has barely even started”
- “still have a lot to do in short time”
- “project lacks energy – needs more energy and optimism”

EM

- Q&A:
 - Tradeoff of costs vs utility not discussed
 - “What system are you describing?”
 - “who is the end-user of the model?”
- PD:
 - “false precision – duration to 4 decimal places”
- MReq:
 - “Variability of time, not mean”
 - “threshold values not justified”
- DA:
 - “alternatives not well explained’ Nordberg
 - “how do alternatives meet reqs?”
 - “needs more development of details”
 - “what is deliverable to customer”
 - “additional staffing has a downside – additional comm. This was not discussed or modeled’
 - ‘alternatives not exclusive. Could include both”
- M/DOE
 - “good description of model”
 - “needs more depth”
 - “not much about DOE”
 - “no value hierarchy. No DOE. No costs included”
 - “needs to include COST”
- “Several slides are unreadable”
- “All work left to 2nd semester. Project not likely to be done on time”
- “Q&A was not effective”
- “Technical part of project was not strong”