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Contextualizing Student Feedback in Controlled Vocabulary; Caliper Analytics Standards Effort to expand Learning Analytics with Student Feedback

Yeona Jang, PhD

EVP – Community, Product Expertise, and Governance | eXplorance Inc.

Adjunct Professor | McGill University





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Session Description:

- Did you know that as universities move from paper to online course evaluations, students submit more comments - 4X to 7X as many words on online course evaluations as on paper forms? This session presents how students' open-ended comments can be normalized with Blue Text Analytics dictionary for benchmarking and comparison, and then contextualized for data-driven continuous improvement to improve the quality of teaching and learning. It also updates the Caliper analytics expansion effort to include student feedback as a part of data about learners and their contexts for learning analytics.

bluenotes
group

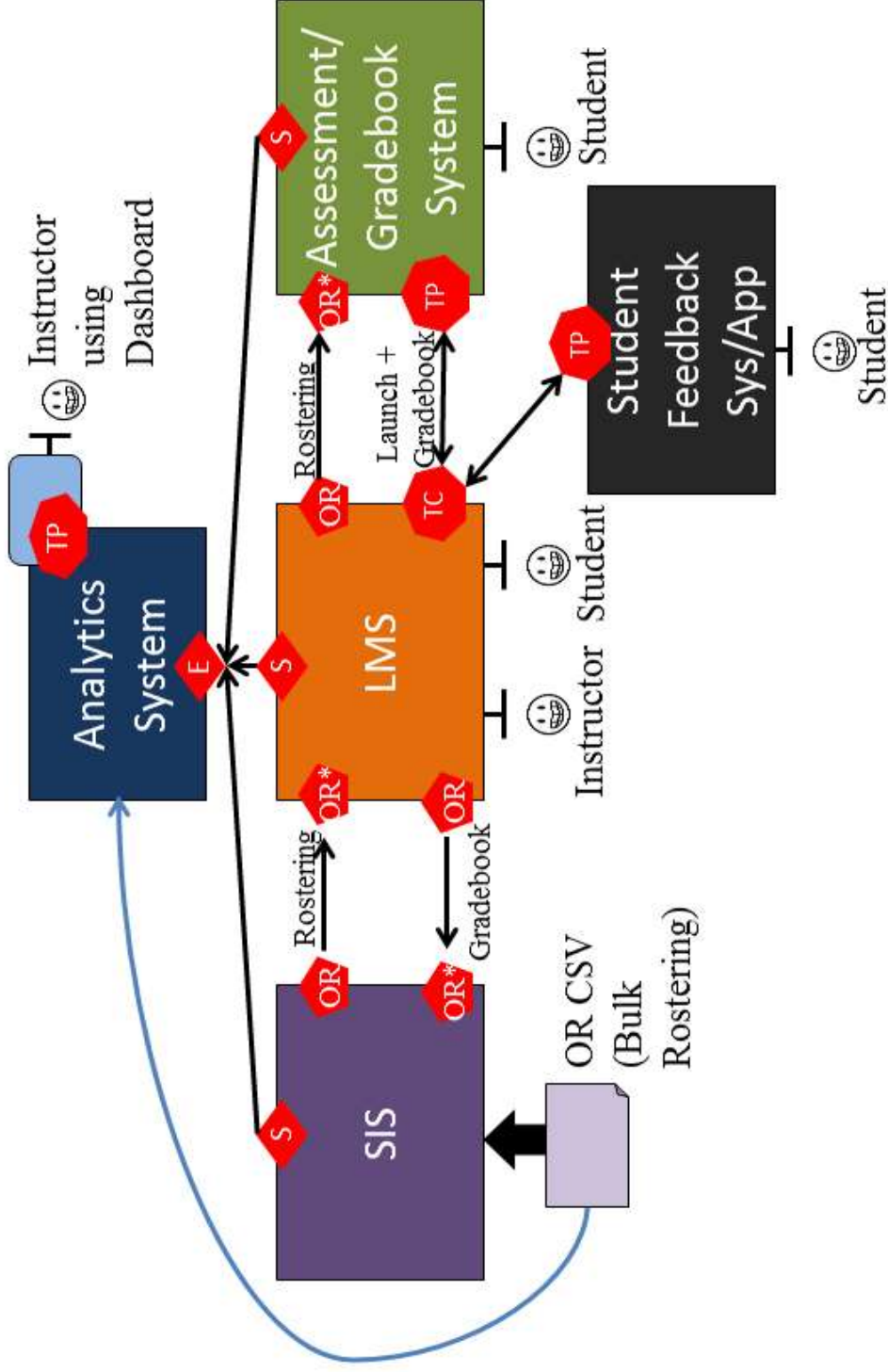
explorance
Improvement at heart.



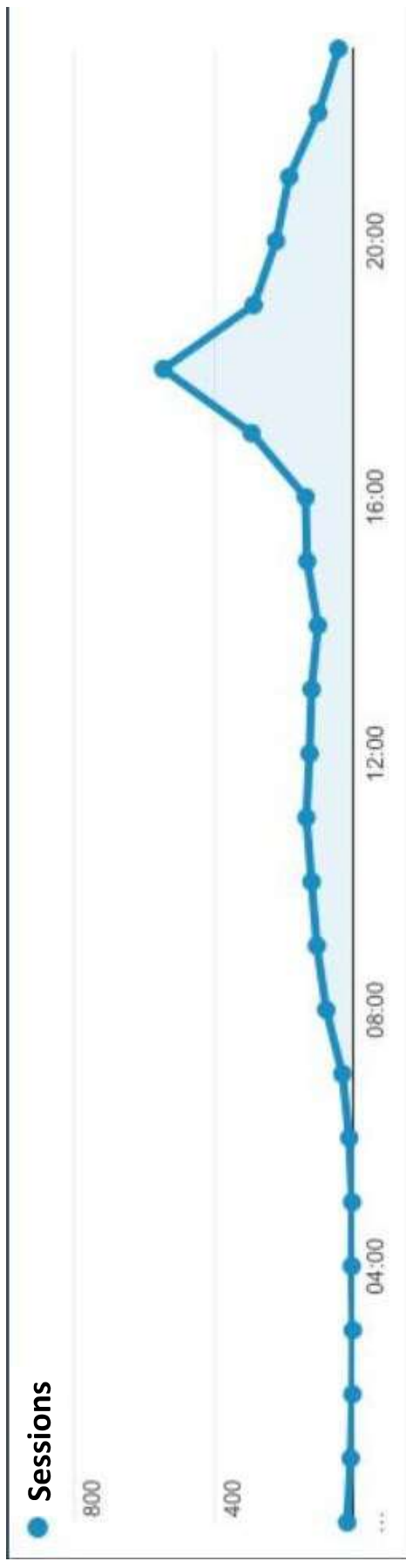
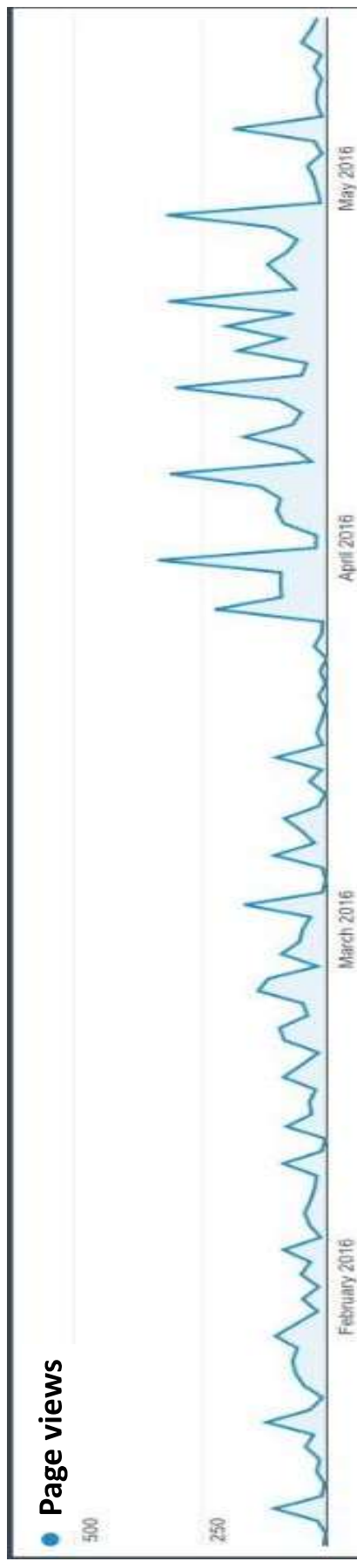
IMS Global Consortium and Caliper Analytics Standards

- **The potential of learning analytics to innovate and shape education**
 - Learning analytics is the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs (Learning Analytics and Knowledge, 2011)
- **But, the reality is**
 - Each organization needs to reinvent their analytics wheel
 - Student feedback is not yet a part of learning analytics discussion
- **Caliper Analytics Initiative by IMS Global Consortium**
 - Interoperability standards to exchange data about learners and their contexts for learning analytics

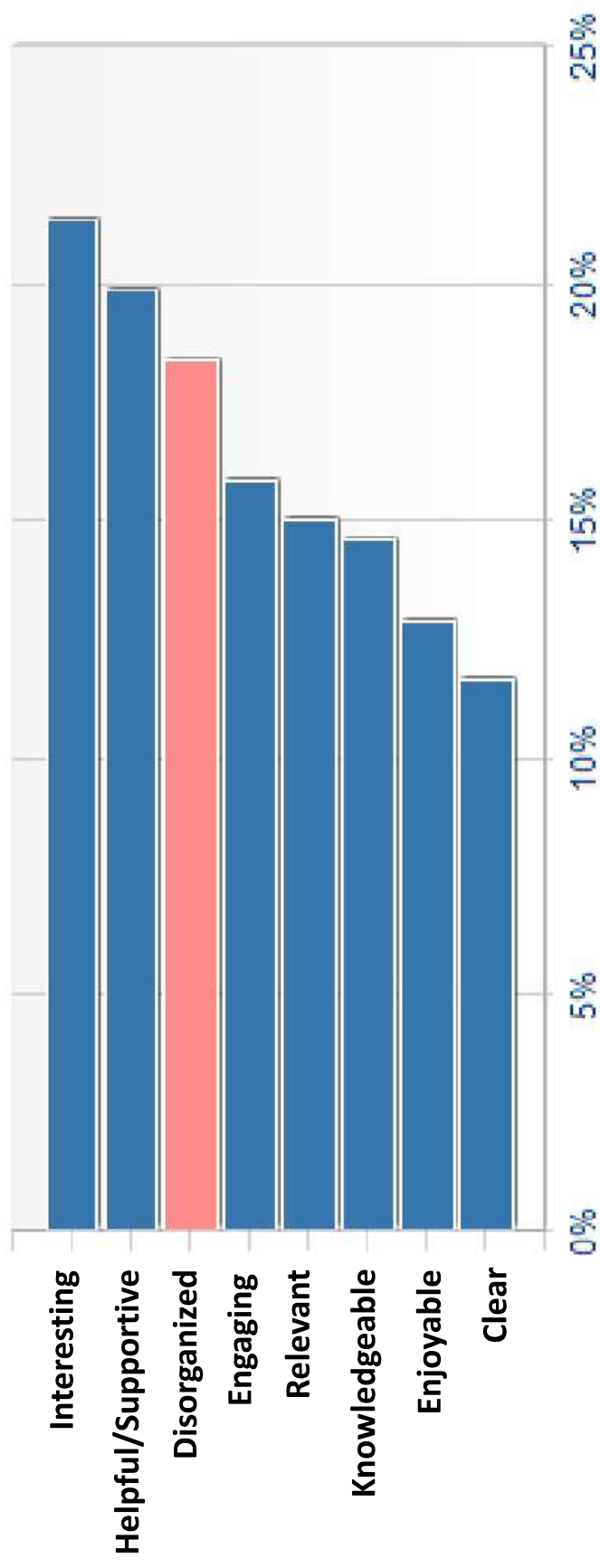
US 4 & 5 Spec Flow

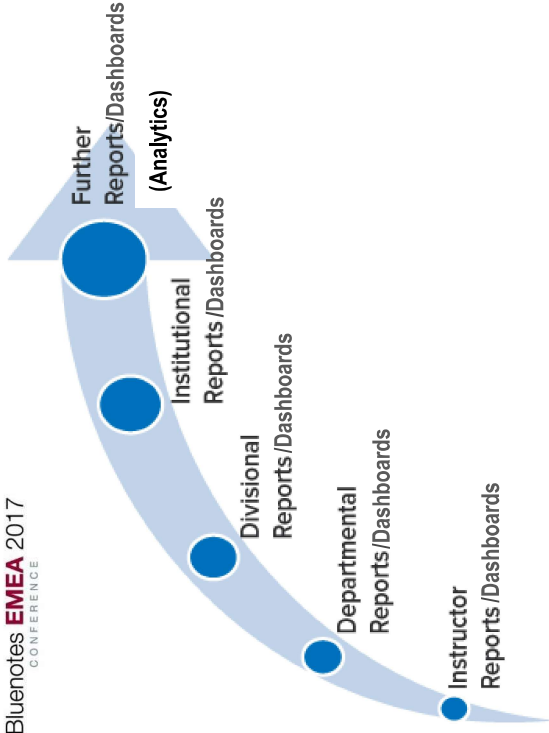


What does this mean? What am I supposed to do with them?

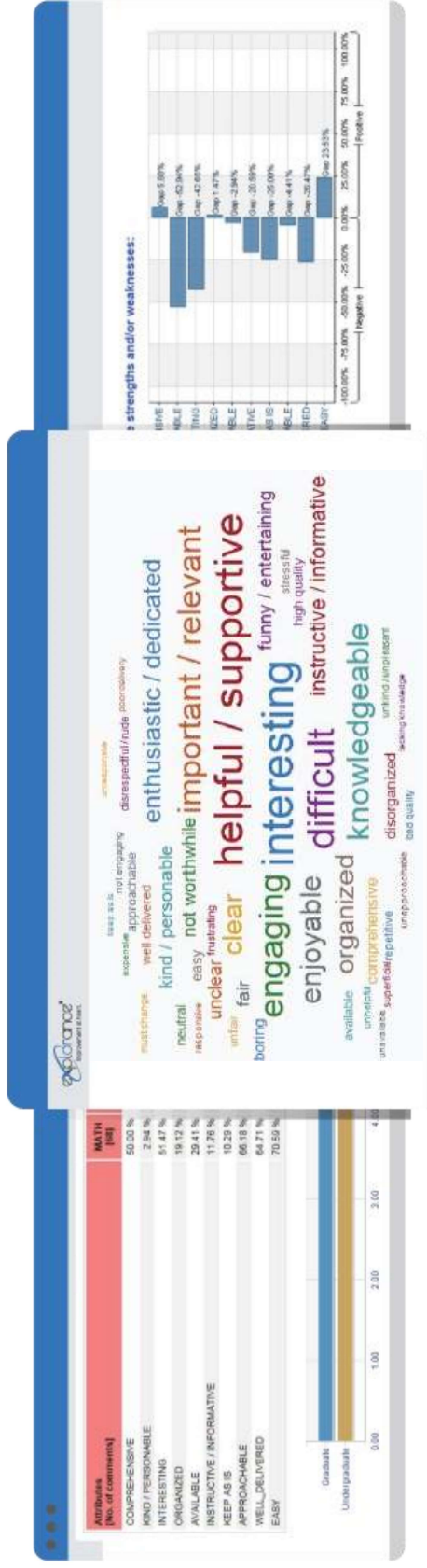


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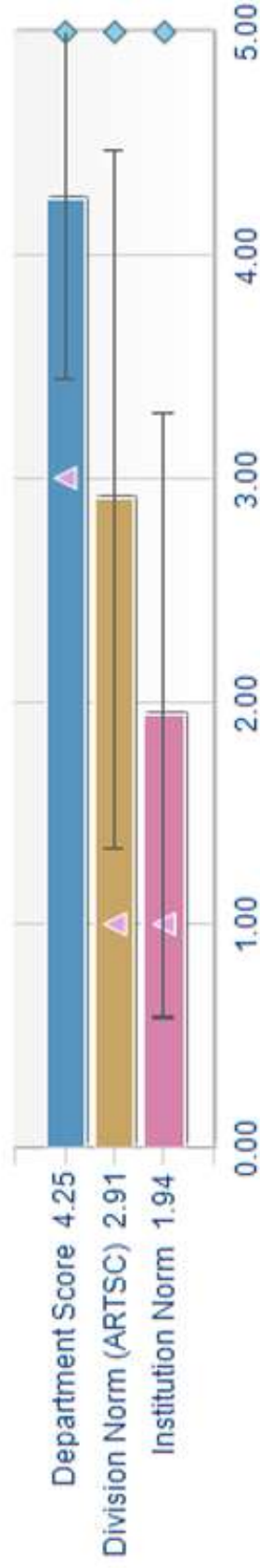




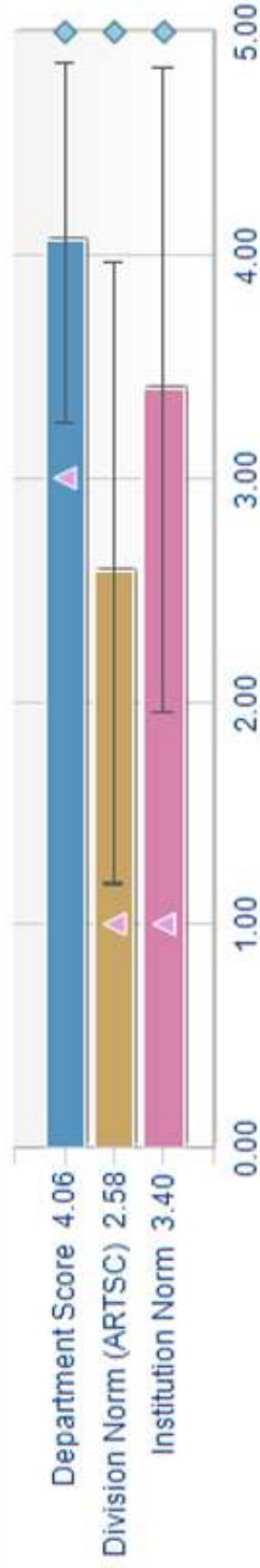
Gleaning actionable insights from student feedback for data-driven, evidence-based continuous improvement in student learning experience and teaching effectiveness



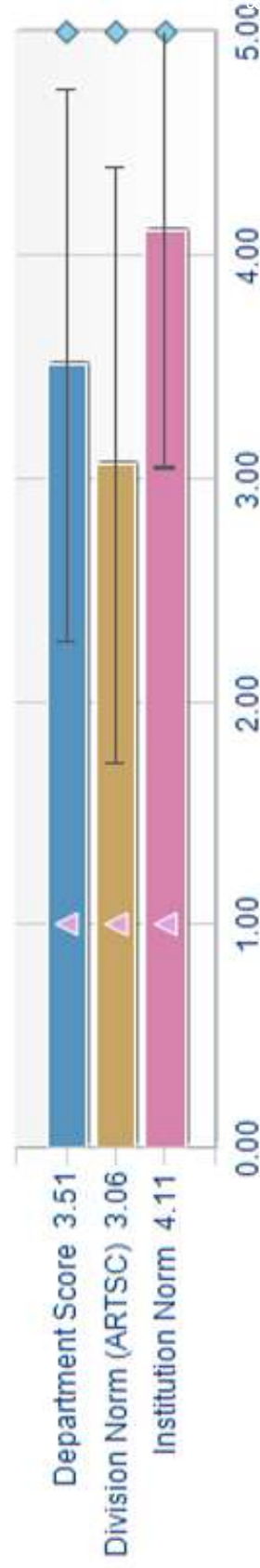
1. The course instructor was enthusiastic about the course material.



2. The course instructor explained concepts clearly.

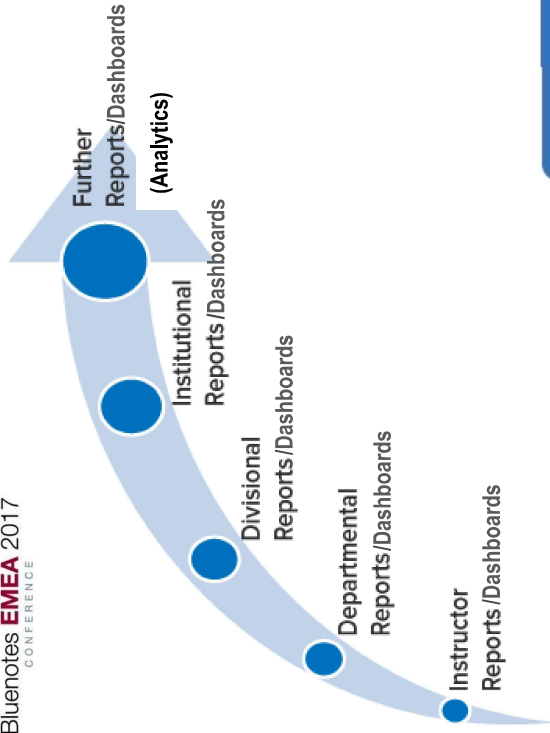


3. The course instructor organized lectures in a logical manner.

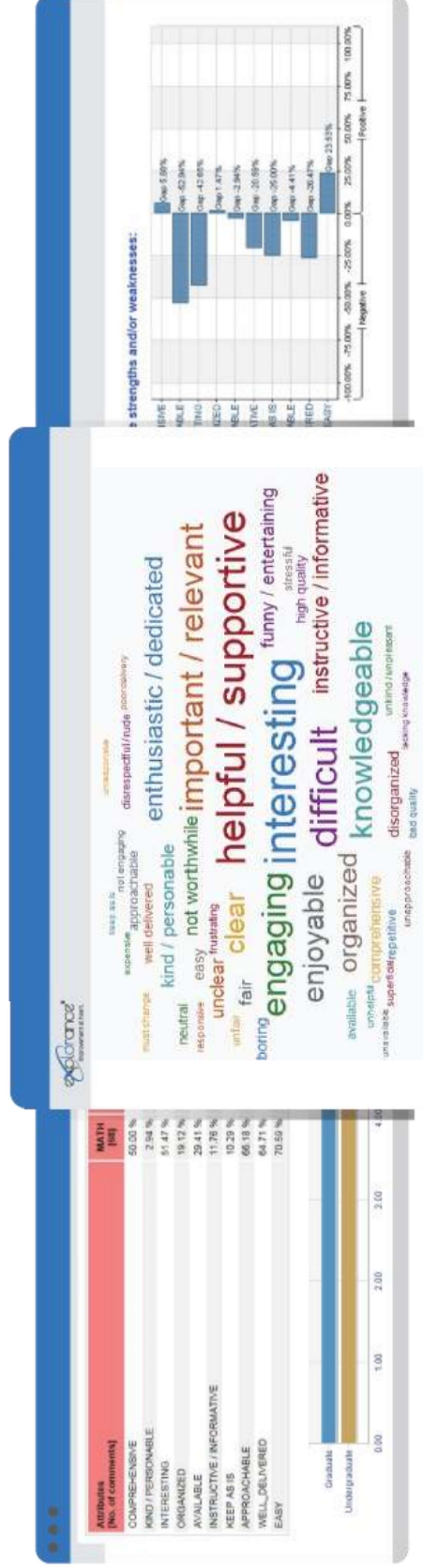


Common Open-ended Feedback Questions

- **What are the strengths and weaknesses of this course?**
- **What aspects of this course are in most need of improvement?**
- **How could the instructor improve the course?**
- **Please discuss the reasons for your overall rating of the instructor.**
- **What are the strengths and weaknesses of the instructor?**
- **What was most helpful about instructor's teaching methods?**
- **What can this instructor do to improve teaching in the classroom?**
- **This unit could be changed in the following ways to improve my learning:**
- **Describe the most helpful/effective aspect(s) of the course.**
- **Would you recommend this course to other students? Explain.**
- **Would you recommend this instructor to other students?**
- **Explain How do you think the instructor could improve this course?**
- **What is the best aspect of our university?**
- ...



Did you know? Students submit 4X to 7X as many words on online course evaluations as on paper forms*.



*Judy Donovan, Cynthia E. Mader, and John Shinsky, "Constructive student feedback: Online vs. traditional course evaluations," *Journal of Interactive Online Learning*, Vol 5, No 3, Winter 2006, page 285

Responses to these Feedback Questions

Not cooperative scratched the surface had zero patience useful
 Accurate Challenging lack of assistance complex lack of depth confounding favouritism
 smooth Answer my questions irrelevant obsolete captivated delightful
 yawn Annoying pertinent Inspid Ambiguous shallow great depth Easy to talk to gratifying
 not useful scratched the surface not informative, lacks excitement detailed exhaustive
 Assists Effortless laid back lose interest Accessible nobody responded
 motivating explicit wearisome essential drop by good natured antagonizing unethical
 quick to reply objective lack of depth integrity manageable Depressing pleasant
 Complete shallow irksome Appreciating grabs attention pointless dull straightforward
 worthwhile unbiased Complete waste irritating reinforces vague laborious
 provides assistance Absorbing exciting always available Aggregable tough discriminated
 precise lack of clarity simple distant Bias great assistance
 intimidating Inaccessible Detached fascinating

Analyzing Responses to Common Open-ended Feedback Questions



- What are the strengths and weaknesses of this course?
- What aspects of this course are in most need of improvement?
- How could the instructor improve the course?
- Please discuss the reasons for your overall rating of the instructor
- What are the strengths and weaknesses of the instructor?
- What was most helpful about instructor's teaching methods?
- What can this instructor do to improve teaching in the classroom?
- This unit could be changed in the following ways to improve my learning:
- Describe the most helpful/effective aspect(s) of the course.
- Would you recommend this course to other students? Explain.
- Would you recommend this instructor to other students?
- Explain How do you think the instructor could improve this course?

Corpus of 1,5 million comments

- 35 millions words (tokens)
- 78,159 word forms (types)

78,159 word forms (types)

- 46 404 “unknown” words
- 75 % misspellings (≈ 35,000)
- 21 % proper names (Products & People)
- 4% acronyms

English Countries: Australia; Canada; Dubai;
New Zealand; United Kingdom; United States.

BTA Teaching & Learning Dictionary: Controlled Vocabularies for Analysis and Comparison

POSITIVE		NEGATIVE	
CLEAR	Accurate, explicit, precise, straightforward	UNCLEAR	Ambiguous, confusing, vague, lack of clarity
EASY	Effortless, manageable, simple, smooth	DIFFICULT	Challenging, complex, laborious, tough
COMPREHENSIVE	Complete, detailed, exhaustive, great depth	SUPERFICIAL	Insipid, lack of depth, shallow, scratched the surface
RELEVANT	Essential, pertinent, useful, worthwhile	NOT WORTHWHILE	Complete waste, irrelevant, obsolete, pointless
ENGAGING	Appealing, captivating, grabs attention, motivating	NOT ENGAGING	Insipid, lacs excitement, lose interest, wearisome
INTERESTING	Absorbing, exciting, fascinating, stimulating	BORING	Depressing, drowsy, dull, yawn
ENJOYABLE	Aggregable, delightful, gratifying, pleasant	FRUSTRATING	Annoying, antagonizing, irksome, irritating
FAIR	Impartial, integrity, objective, unbiased	UNFAIR	Bias, discriminated, favouritism, unethical
HELPFUL/SUPPORTABLE	Assists, great assistance, provides assistance, reinforces	UNHELPFUL	Not cooperative, not useful, not informative, had zero patience
AVAILABLE	Accessible, always available	UNAVAILABLE	Inaccessible, lack of assistance
RESPONSIVE	Answer my questions, quick to reply	UNRESPONSIVE	No answer, nobody responded
APPROACHABLE	Easy to talk to, laid back, good natured	UNAPPROACHABLE	Detached, distant, intimidating

ALERTS

AGGRESSION

ALCOHOL

DRUGS

MENTAL ILLNESS

RACISM

RELIGION

SEXISM

OTHER DISCRIMINATION

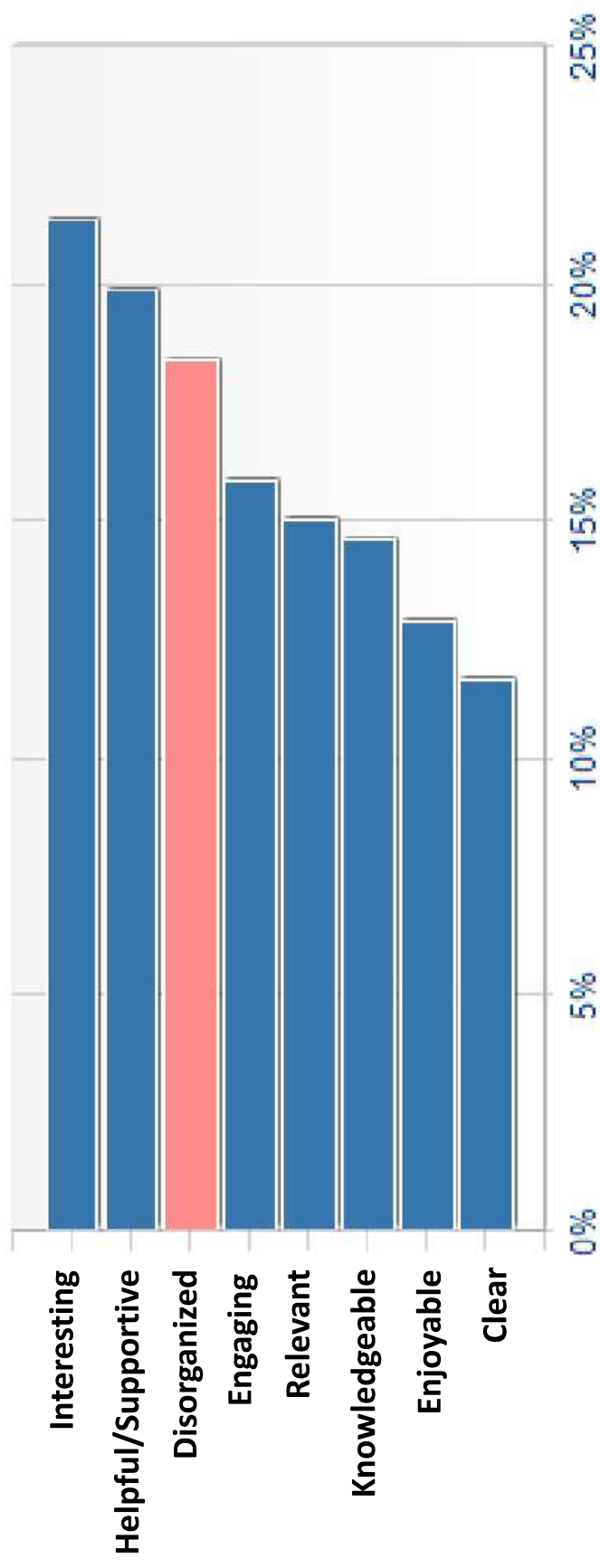
SEXUAL

SUICIDE

THREATS & BULLYING

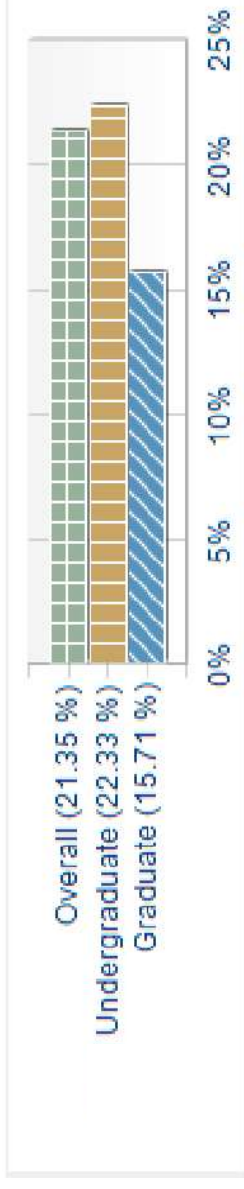
WEAPONS

An Analytics Use Case: Contextualizing Student Feedback

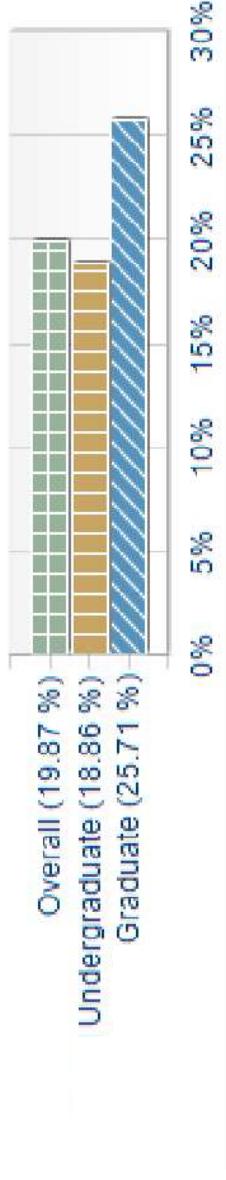


An Analytics Use Case: Contextualizing Student Feedback

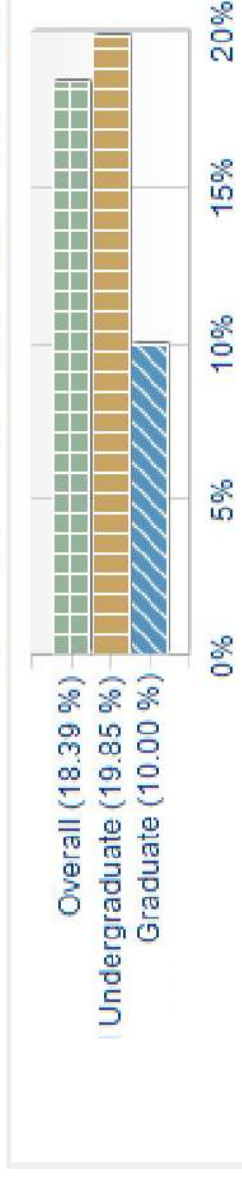
Interesting



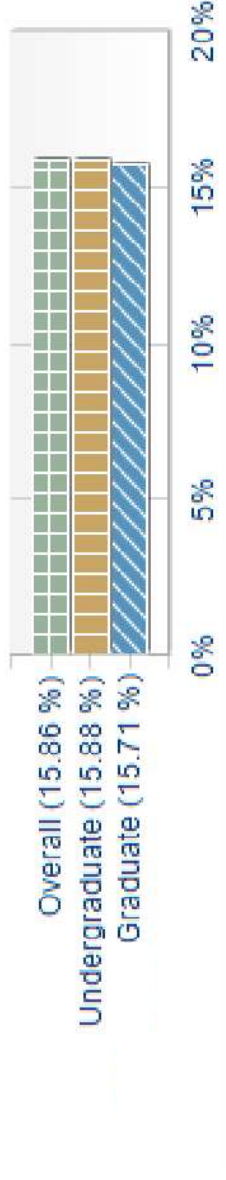
Helpful/Supportive



Disorganized



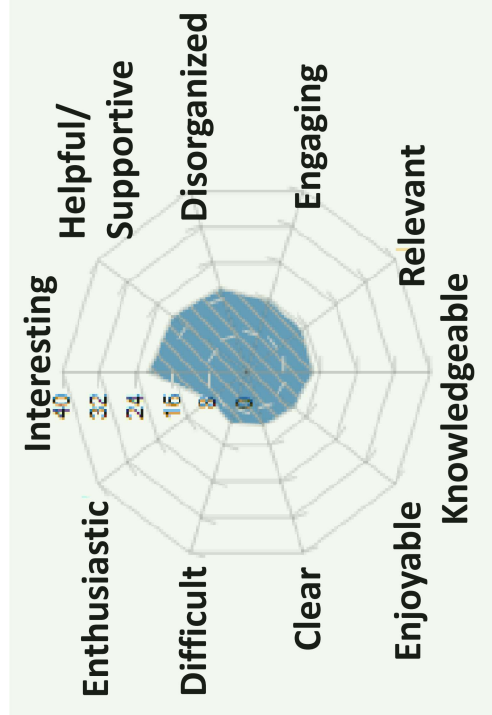
Engaging



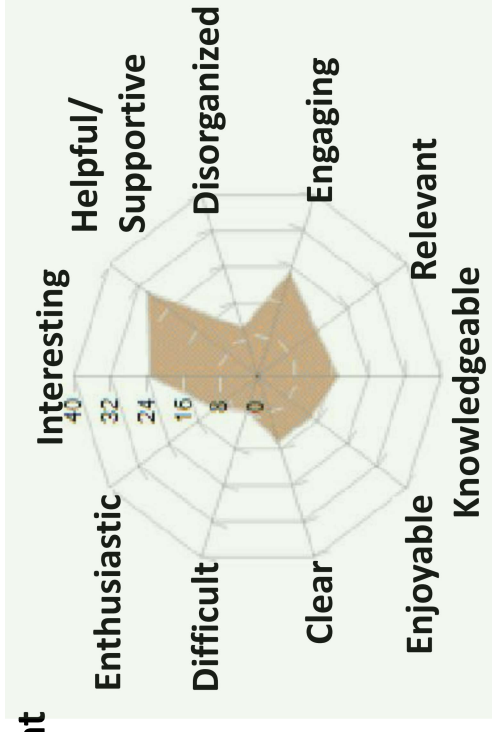
Disorganized?

Investigating/Exploring: any difference in student feedback by learning performance?

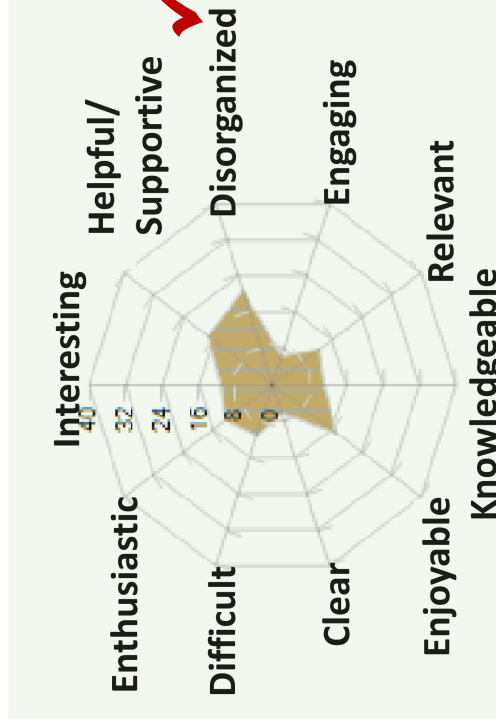
Overall



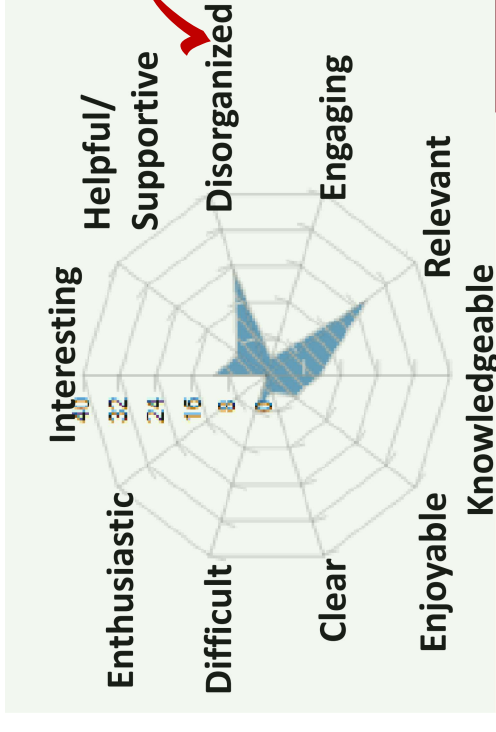
Excellent



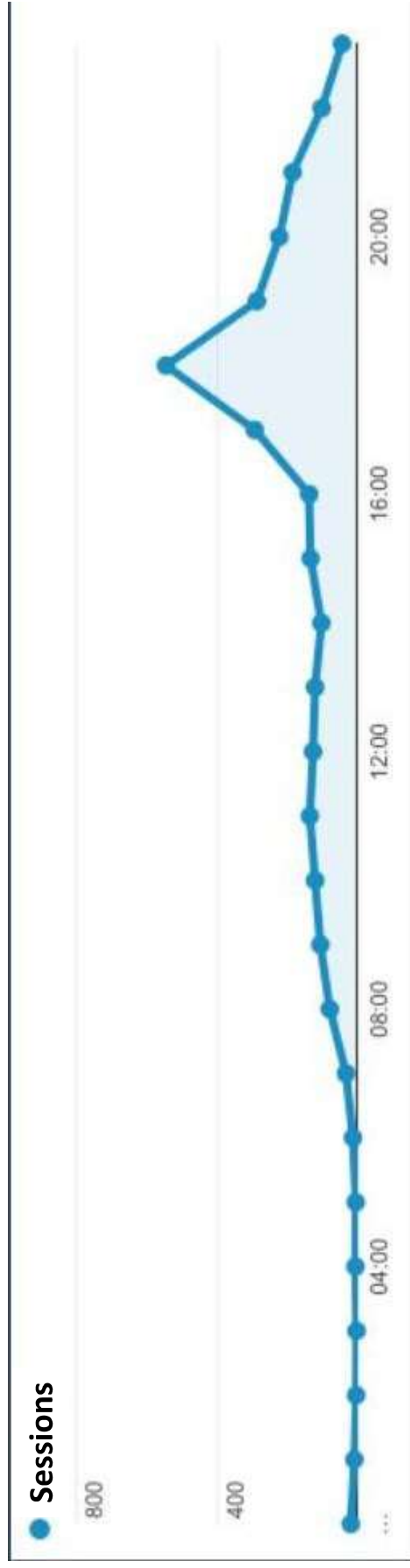
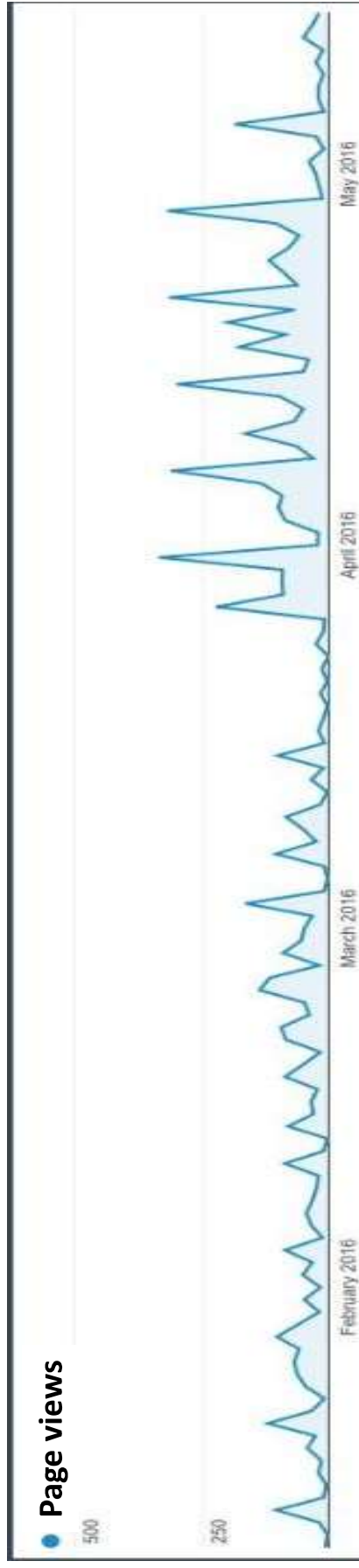
Fair



Poor



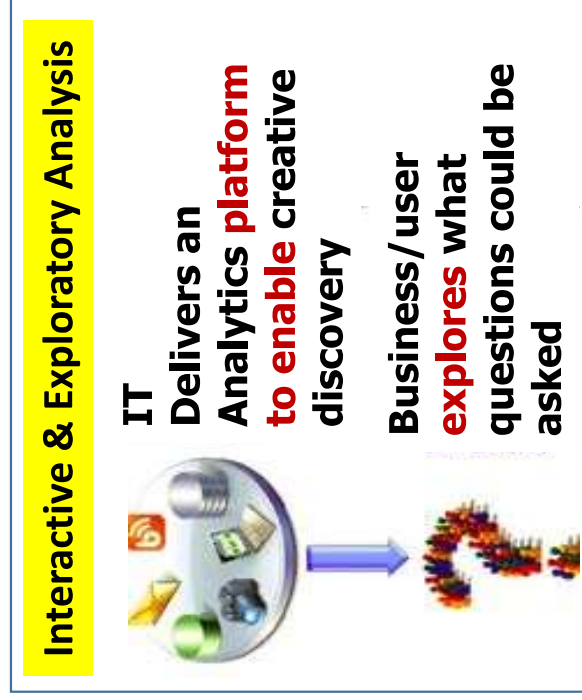
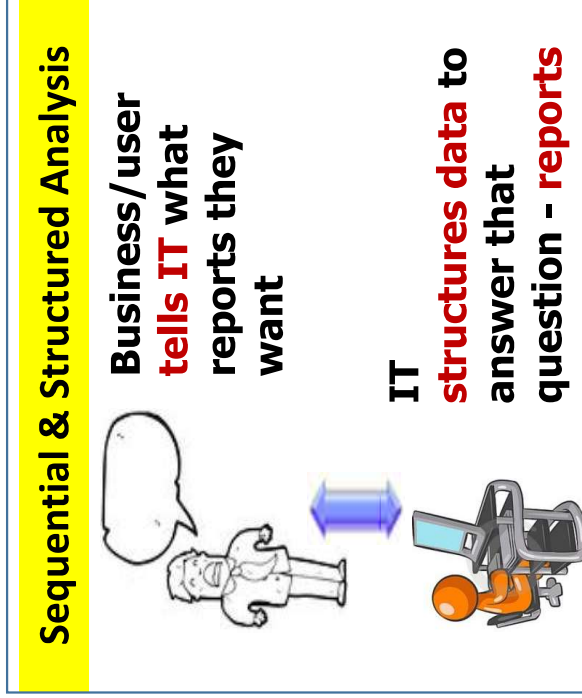
An Analytics Use Case: Contextualizing Student Feedback - Disorganized



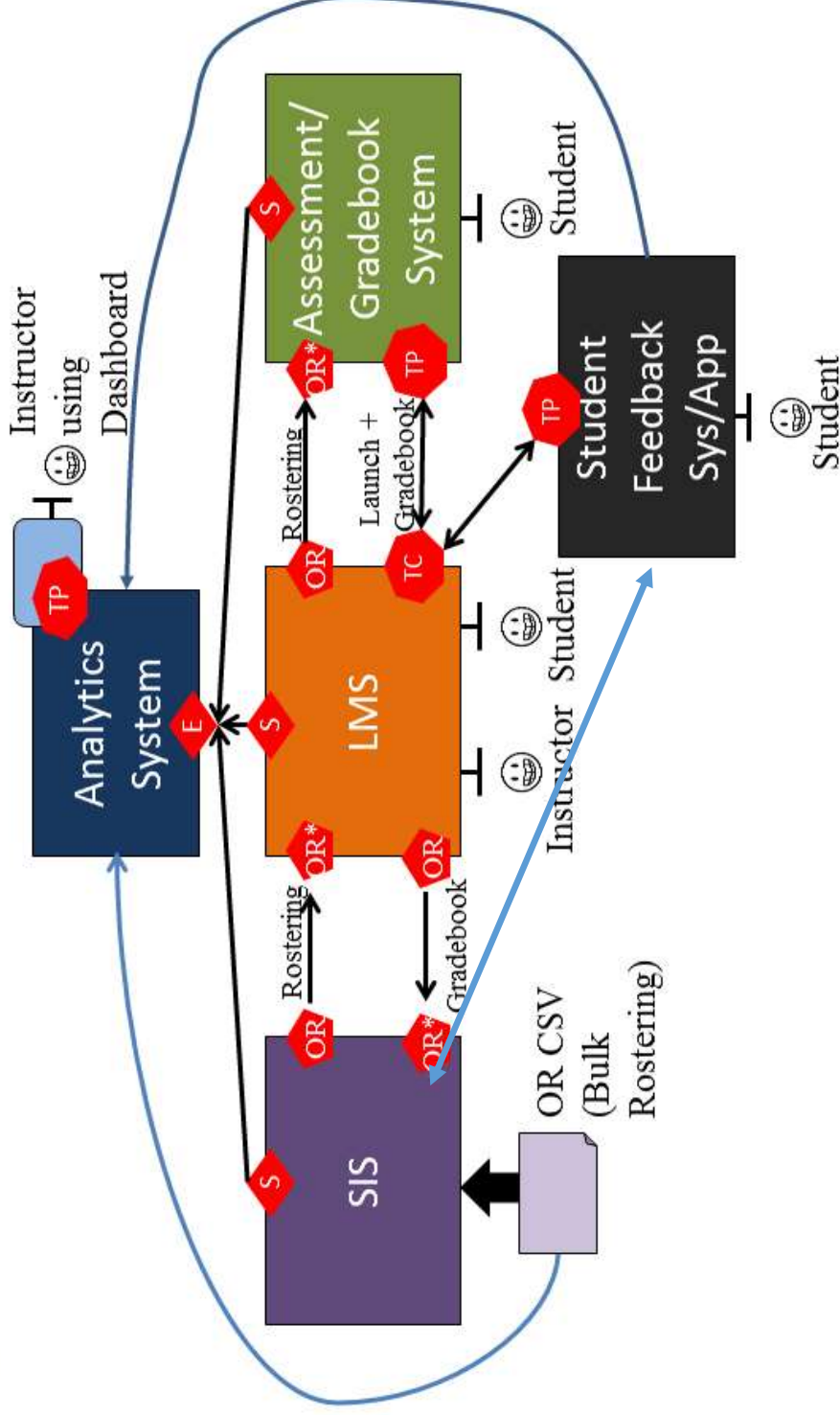
Analytics Degree of Complexity by Four Question Types to Answer

(source: David Simchi-Levi @ MIT)

Descriptive	Diagnostic	Predictive	Prescriptive
Tell me what happened.	Don't just tell me what happened, tell me why it happened.	What will happen?	How can I make it happen?



US 4 & 5 Spec Flow



**Future Work:
Instrumenting
Student feedback
in Caliper
for analytics
("Survey Profile")**



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Thank you!

Go as far as you can see; when you get there, you'll be able to see farther.

