Making Sense of Student Rating of Instruction (SRI) Data:

Effective visualization techniques to inform teaching practice

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JUNE 18, 2015

What we’ll explore....

- How to get more and better insights from the SRI data you already receive
- Simple ways to re-organize and view your SRI data to get more out of them
- The kinds of questions you can ask about SRI data that might help you with a path for better teaching
- Ways to tell your teaching story more effectively
- Basic rules for how you can and can’t use these data
A Typical SRI Report

Pictures are nice, but....

What are you trying to use the scores for?

What are you trying to learn?

What question are you trying to answer?
Here’s a question:

Professor Marvel has an average instructor score of 5.6 over the last several years.

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Is he a good teacher?

Same Means, Different Meaning

<table>
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<th>Steady Growth</th>
<th>Crash</th>
<th>Steady Decline</th>
<th>Mixed Bag</th>
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Every one has an overall mean of 5.6.

There is a life story revealed in each profile.

What is the story?
Here’s a question:

Professor Marvel has an average instructor score of 5.6 over the last several years.

Is he a good teacher?

Wrong question.

What is the right question?

What can Prof. Marvel learn about his teaching based on the patterns found in his SRI data?

A totally different way of thinking about the data.
Provides an inquiry-based, improvement-based focus.
Guides you to think of better questions that the data can help you answer in a creative but truthful way.
Getting Beyond the Mean

- How has your teaching changed over time?
- Are your strengths and weaknesses the same in every course?
- What anomalies are there in your scores? Why?
- Do your students respond better to you in some courses than in others?
- What is the profile of what you’ve taught over time?
- Are there other influences that should be documented?

Here are 3 examples of better questions

1. What kinds of teaching have I been most successful with, and why?
2. How can we choose reasonable thresholds for tenure & promotion criteria?
3. How reasonable are those thresholds for my personal situation?
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1. What kinds of teaching have I been most successful with, and why?
2. How can we choose reasonable thresholds for tenure & promotion criteria?
3. How reasonable are those thresholds for my personal situation?

Prof. Marvel’s Scores Over Time....

Prof. Marvel looks like he’s in decline.

What’s happening?

Let’s look closer...
Prof. Marvel’s Courses Over Time....

Instructor Score History for Professor Marvel
Fall 2004 to Winter 2014

Overall Mean: 5.6

Prof. Marvel is actually a ‘mixed bag’.

It’s not clearly a decline anymore.

Most years, one score is high, one is low.

Is there a pattern in the scores?

Understanding Teaching Profiles

Professor Marvel and Professor DiCee have different patterns over time.

Their overall mean scores across all years are nearly identical, but the pictures are different.

What might be different about the two professors’ teaching?

What might be different about the context of their teaching?
Prof. Marvel’s Teaching Scores by Course

Prof. Marvel has taught a lot of different courses, in four different fields, and only a couple of times each.

But this view doesn’t show why.

(But now we know to ask.)

Understanding Teaching Profiles

Both instructors have an overall mean of 5.6, but they have very different course profiles.

Lots of influencing factors:
- Number of distinct courses taught
- Number of times teaching the course
- Number of new courses per year
- Alignment of course subject to expertise
- etc. etc.

What else might be an influence, that we can’t see from this view?
Here are 3 examples of better questions

1. What kinds of teaching have I been most successful with, and why?

2. How can we choose reasonable thresholds for tenure & promotion criteria?

3. How reasonable are those thresholds for my personal situation?

Tenure & Promotion Criteria: Departmental Context

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“Let’s use a 3-year average of 4.25. That makes sense.”
Tenure & Promotion Criteria: Departmental Context

“Let’s use a 3-year average of 4.25. That makes sense.”

“390 courses over 10 years and only 11 are under 4.25. 4.25 is 3rd percentile. Are we sure that’s what we want?”

“No! That’s horrible! What percentile matches what we mean?”

“What score goes with the 60th percentile?”

“Let’s use a 3-year average of 5.9. That reflects the data.”
Here are 3 examples of better questions

1. What kinds of teaching have I been most successful with, and why?

2. How can we choose reasonable thresholds for tenure & promotion criteria?

3. How reasonable are those thresholds for my personal situation?

Norms for Context

Prof. McFarlane teaches “A Survey of Venomous Arachnids”.

He gets an Instructor Score of 5.0 and a Course Score of 5.2, which spawns a discussion with his department head.

“It isn’t amazing, but I think it’s OK.”

“Hmm.... remember when we chose the T&P criteria? The mean was 5.7. Let’s look at the departmental history.”

“Oh.”

“Well.... it is a service course, and everyone in the department knows the service course scores are always low.”
Norms for Context

“Well... it is a service course, and everyone in the department knows the service course scores are always low.”

“OK, I’ve heard that too, but I’ve also heard that service course instructors always get high scores and an unfair advantage. Let’s take a look at the service courses in our department.”

“Let’s make sure we’re fair about it, and we’ll just compare your course to the other service courses.”

“Oh.”

“Who teaches those higher ones? They might have some good ideas to share...”
Testing the Story: Fit or Myth?

“Everyone knows the evaluations are lower in large courses.”

“Senior courses are small and the students are in their chosen field, so of course the scores are always high.”

If the story fits the data, then let’s find wise ways to use the information, or to inform the next useful question.

If the story is a myth, let’s stop telling it...

Be cautious: the answer may not be the same everywhere on campus. Test it.
The flip-side of the right question

What can Prof. Marvel *demonstrate* about his teaching?

- what does he do well?
- what can he improve?
- what is he improving?

By better understanding context and
by better understanding patterns
he can tell his story better.

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Using Annotati**ons**

**Instructor Score History for Professor Marvel**
**Fall 2004 to Winter 2014**

*New:* new offering in the calendar
*First-Time:* first time teaching an existing course

- Project-Based Course, offered only once
- New Course
- 2 First Time Courses
- 2 Admin Appointments
- New Course, Co-taught
- First Time Courses
- Field Course
- Field Course
- Field Course
- Field Course
- Field Course

- Primary area of expertise
- Secondary area of expertise
- Outside areas of expertise

*First time teaching a night course, first time teaching a 3-hour course, first time teaching a service course, and first time teaching a large class (>300).*
Some Cautionary Advice...

Don’t read too much into data from small classes.
If a small proportion respond, is it really a representative opinion?
The numbers are imprecise: fat chisel markers, not mechanical pencils
Calculations will give results, but may not measure what they’re supposed to.
Compare instructors cautiously: different teaching profiles, different student populations.

People will acknowledge all this, but still use the numbers for decision making.
Don’t let numbers speak for you – you do the talking!

In summary...

- SRIs are a useful part of an integrated approach to documenting your teaching.
- Documenting your practice requires multi-faceted data and multiple forms of evidence.
  - Evaluation by colleagues
  - Curriculum evaluation and materials review
  - Student and graduate focus groups
  - GA/TA input
  - Self-reflection and self-evaluation
  - Video recording
- There is a story hiding in the numbers, but YOU need to tell it.
- YOUR job is to articulate the profile, impact, and trajectories in meaningful and legitimate ways.
Questions??

If you want a copy of our presentation, please put your name on our list up here.

If you just can't get enough of this awesome data nerdery:

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http://ctl.uwindsor.ca/provincial-innovation-fund-reports/