

Narrative Mathematics as a Tool for Cultivating Curiosity and a Sense of Purpose

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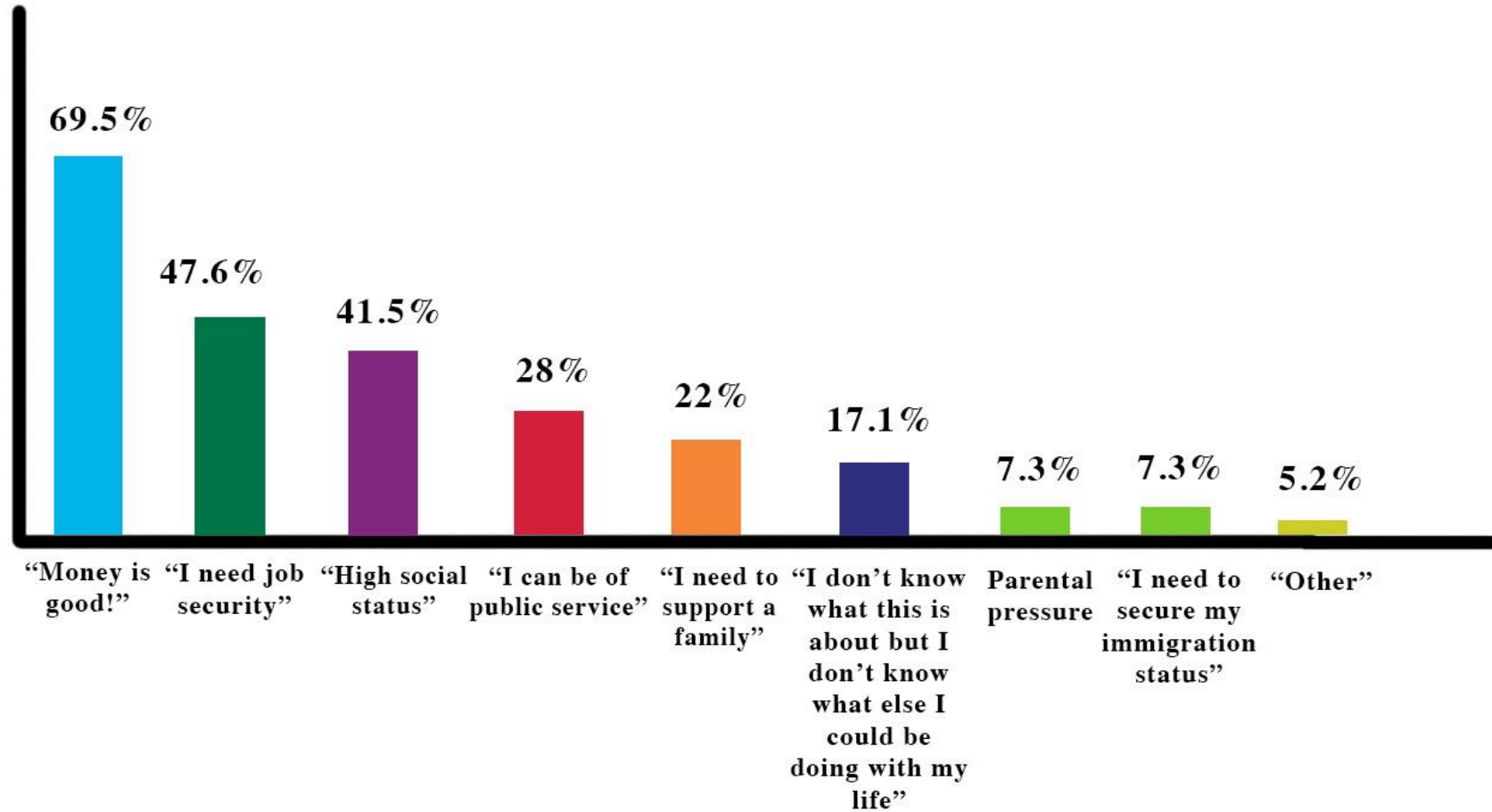
University of Toronto

Why Narrative Mathematics?

- The course
- The traditional pedagogy
- Students' side of the equation
- Inspiration from other fields (Greenhalgh 1999, Larry 2006, Cushing 2012)

Self-selected Students

Motivation in Choosing the Major



What are my goals?


1. To provide an interesting, intuitive and memorable concept map that link a large number of mathematical concepts
2. To provide students with a clear sense of relevance to the course materials and an intrinsic purpose of learning

Design and Implementation

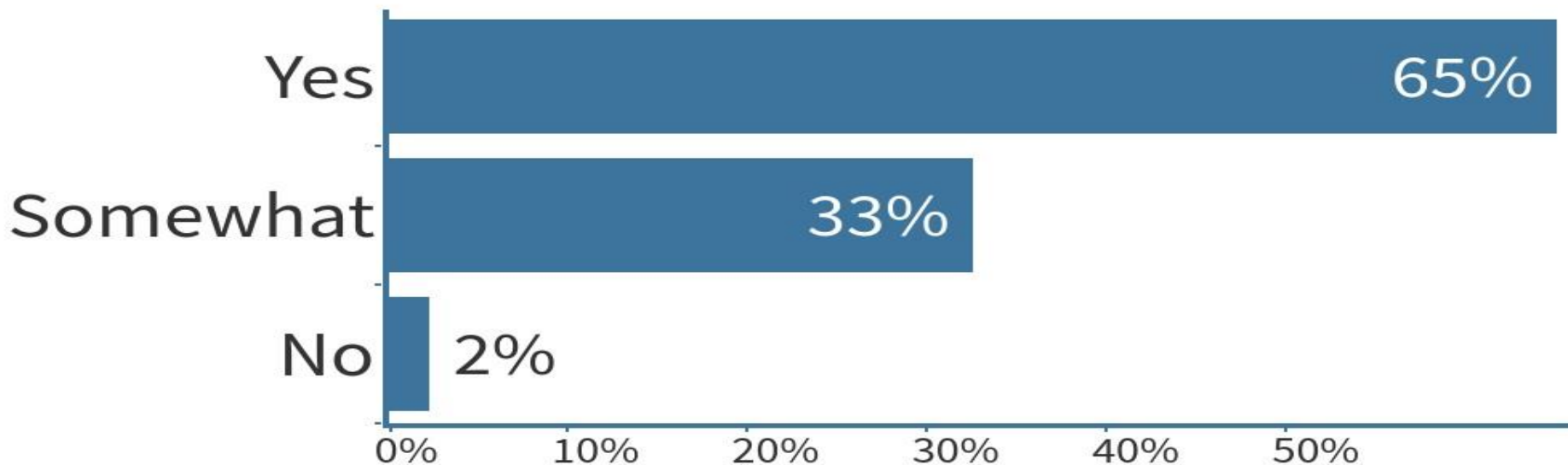
- The character and the story
- Choice of media
- Ongoing narratives (lectures, blog posts, in-class participation)
- Other (e.g. student assessment)

Reception

On "Narrative concept map" Q1: Did the overarching narrative (media clips, portal posts, along with my in-lecture narrative) help you create a concept map that shows you how various mathematical concepts in this course are linked amongst each other?


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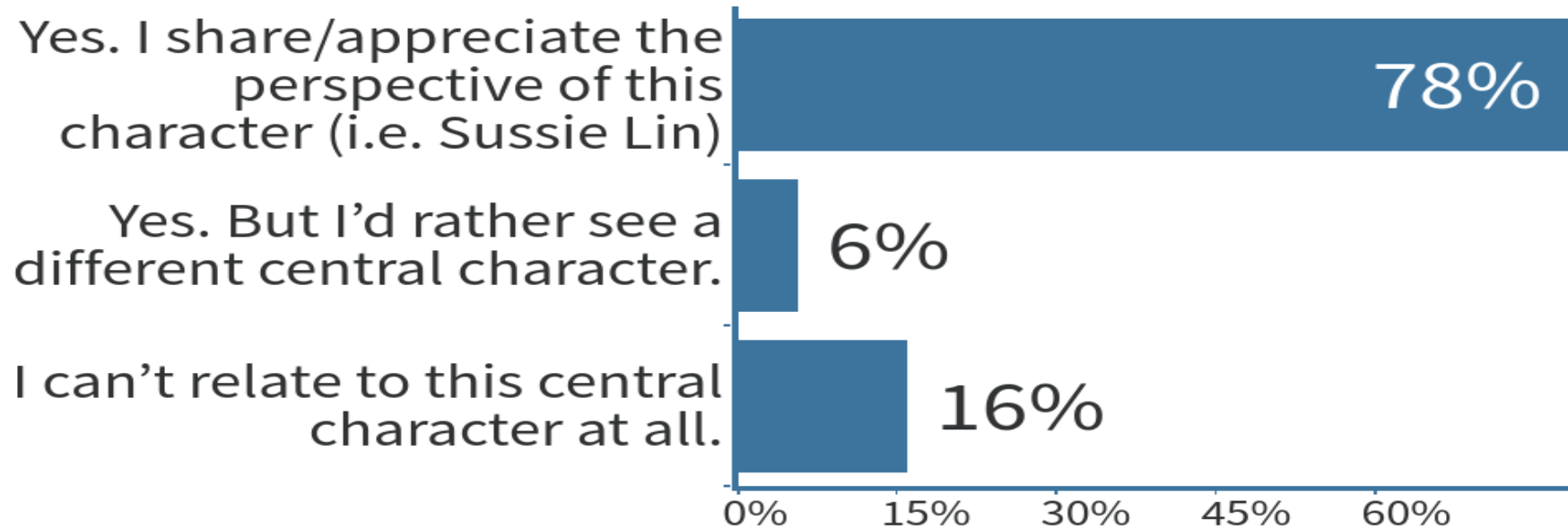


Reception

On "Choice of character": Q5. For the pilot year, I have deliberately chosen a central character who is an ethnic minority and an immigrant's child. Is this a character you can relate to?

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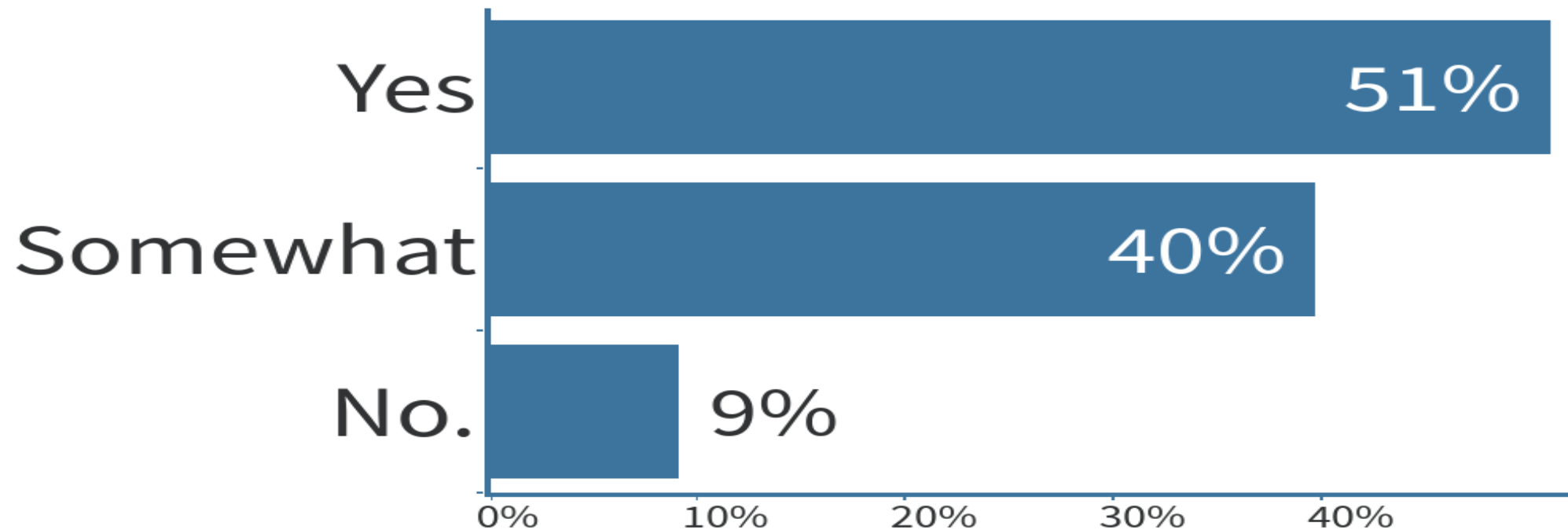
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Reception


On "Choice of character": Q6. Did this choice of character help you develop a deeper purpose for learning in this course?

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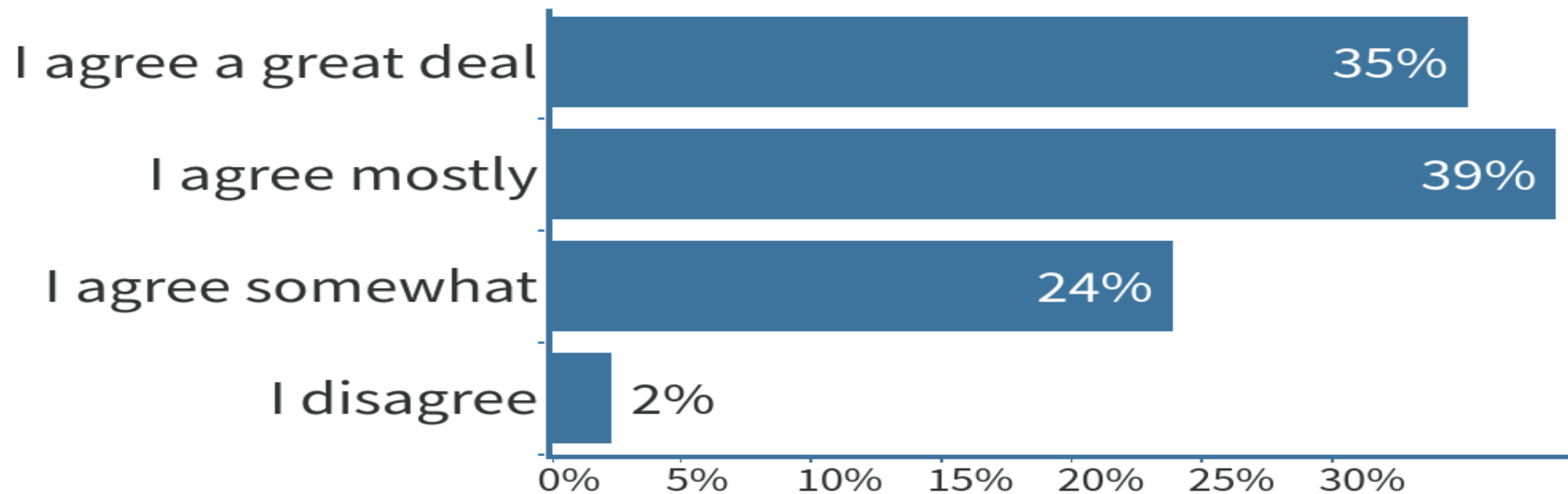


Reception

Do you agree with the following statement? "Overall the narrative-based pedagogy improved my learning experience in ACT247 and thus is a worthy pedagogical approach to be further explored."

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Lesson learned

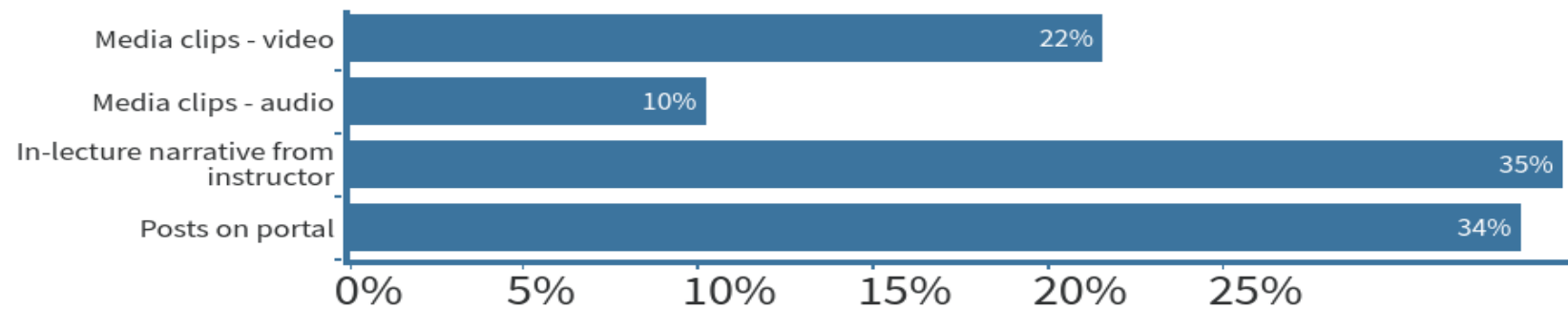
On "Narrative platform" Q3: There have been some financial/logistic constraints during the development of the current narrative. The current narrative platform is media clips + in-lecture narrative + in-between lecture posts on portal/blog. Which component(s) of the current platform worked the best for you (and you'd like to see an expansion of)? You may choose multiple answers. (multiple answer question)



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Some tips on how to get started

- Backward design (Dee Fink: *Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses*)
- No self-censoring, just start writing!
- Find like-minded collaborators
- Ask a small group of students for a preview
- Long-term commitment

The course website

“Sussie Lin’s Guide to Life Contingency Galaxy” can be viewed here:

<http://vickizhang.wixsite.com/lifecontingencies>

Questions? Comments?

- Care to share your experience with narrative-based pedagogy?
- Questions & comments?
- Email me at vicki@utstat.toronto.edu
- THANK YOU!