Wading Through Words: Finding Insights in Qualitative Data with BlueML

Stephanie Klein, PhD
Principal Consultant

April 14, 2022

Explorance Proprietary: DO NOT DISTRIBUTE WITHOUT EXPLORANCE'S PERMISSION

Agenda

- What is BlueML?
- Why BlueML?
- How can BlueML help?
- Demo
- When is BlueML helpful?
- Questions?

Explorance Proprietary: DO NOT DISTRIBUTE WITHOUT EXPLORANCE'S PERMISSION

What is BlueML?

- Platform allowing us to ask questions of our qualitative data

  —> Identifies comments most relevant to the question

- Technically:
  - Comment analytics powered by machine learning using neural networks
  - Machine learning model in two parts: unsupervised language model + supervised classification
  - Specifically trained machine learning algorithms for each categorization model
  - Choice of models including student learning, employee learning, polarity

Explorance Proprietary: DO NOT DISTRIBUTE WITHOUT EXPLORANCE'S PERMISSION

Why BlueML?

Positive	Negative
81%	16%

Sentiment is good to know, but not enough insight for action

Topics show what people are talking about… but are they compliments or complaints?

Topics	Comments
Course component	172
Course material & structure	117
Practical learning	38
Assessment & evaluation	18

It's a really good course but materials can be difficult to understand at times..

BlueML models include both (and more), trained for purpose and population

Comments:	Positive	Negative	Neutral	Ambiguous	Recommendations
9038	98%	2%	0%	1%	62

Select a field you want to use as a filter:

- Department
- Year of Study
- Part/Full-Time
- ion
- ment
- core
- Rating: Course

Explorance Proprietary: DO NOT DISTRIBUTE WITHOUT EXPLORANCE'S PERMISSION

How can BlueML help? (Poll)

What questions would you (or your institution) like to ask of your qualitative student feedback?

- What feedback might explain a program's lower ratings?
- What do students most appreciate about their instructors?
- What feedback are students giving to adjunct instructors?
- What are students saying about learning environment in online courses?
- What suggestions for change are students providing?

Feel free to note additional topics in the question panel!

Explorance Proprietary: DO NOT DISTRIBUTE WITHOUT EXPLORANCE'S PERMISSION

Demo

SCENARIO

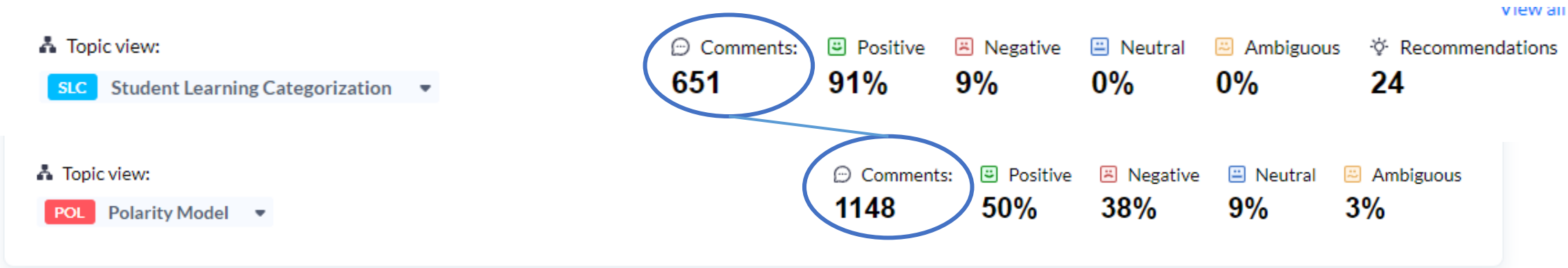
- Courses in Program A receive lower evaluation scores than others in this academic unit
- Program director seeks insights to guide curriculum committee in developing an improvement plan

End result: insight and exportable file with the relevant comments

Explorance Proprietary: DO NOT DISTRIBUTE WITHOUT EXPLORANCE'S PERMISSION

Sentiment Analysis

- Overall stats from the same data set, but different analyses
- 651 comments aligned with SLC topics
- Polarity can be identified for all 1148 comments



Explorance Proprietary: DO NOT DISTRIBUTE WITHOUT EXPLORANCE'S PERMISSION

Recommendations

Our instructor needs more practice lecturing, I don't hold it against him, but it showed nearly every class. Often times I would fall back to the textbook to teach me the material, and that makes me feel like I'm wasting money enrolling in the class.

[redacted] was the worse professor I ever had. He was so rude. He didn't give a proper answer to our questions. His exams and assignments had nothing to do with the class notes. I wish I could attach his feed back note to this evaluation form so u could see how rude and insulting and non constructive he communicates with us. He is a shame for the program and saying that we pay more than $40000 to learn, we deserve a better professor for such an important course. I would be surprised if he teaches this course again. He doesn't deserve to be a professor at university.

Philosophy can be complex, keep it simple: - Class should work with only one text book so everyone can follow lectures. - Start with easy and slow and progress gradually, not the the opposite. - And perhaps, same testing methods for all students The university should provide a proper class room space worthy of the HIGH FEES it charges the students.

Reading from the slides for quizzes in tutorials is not helpful at all, and lectures should reflect the exam especially calculations. I understand that this is a university you have to do most of the readings yourself, but at the same time if i have to spend more money in tutoring why am i paying tuition for these courses.

Explorance Proprietary: DO NOT DISTRIBUTE WITHOUT EXPLORANCE'S PERMISSION

When is BlueML helpful?

- Extracting the comments that provide insight of interest
- Understanding student perspectives
  - In specific topics, e.g., course material & structure, exams/quizzes, helpfulness & support
  - By demographic, e.g., grad, Econ, online course, adjunct instructors
  - Filtered on sentiment, e.g., what positive feedback is provided by students who gave a low rating?
- Any time you have qualitative data for which BlueML categorization models are relevant

Explorance Proprietary: DO NOT DISTRIBUTE WITHOUT EXPLORANCE'S PERMISSION

bluenotes GLOBAL 2022

Insight to Action: Driving Student Success

Palmer Hotel | Chicago, IL, USA

July 30 – August 3, 2022

- BAC, BEC, & BRMC Certification Training Camps on July 28-30
- Pre-Conference Workshops & Community Meetups on July 30-31

Learn More & Register at: www.bluenotesgroup.com/bluenotes-global-2022

Early-Bird & Special Bundle Discounts End on April 25, 2022

bluenotes community | UNIVERSITY OF LOUISVILLE | explorance.