

Student Assessment of a Newly Created Open Education Set of Student Study Resources for Human Anatomy, Physiology, and Pathophysiology

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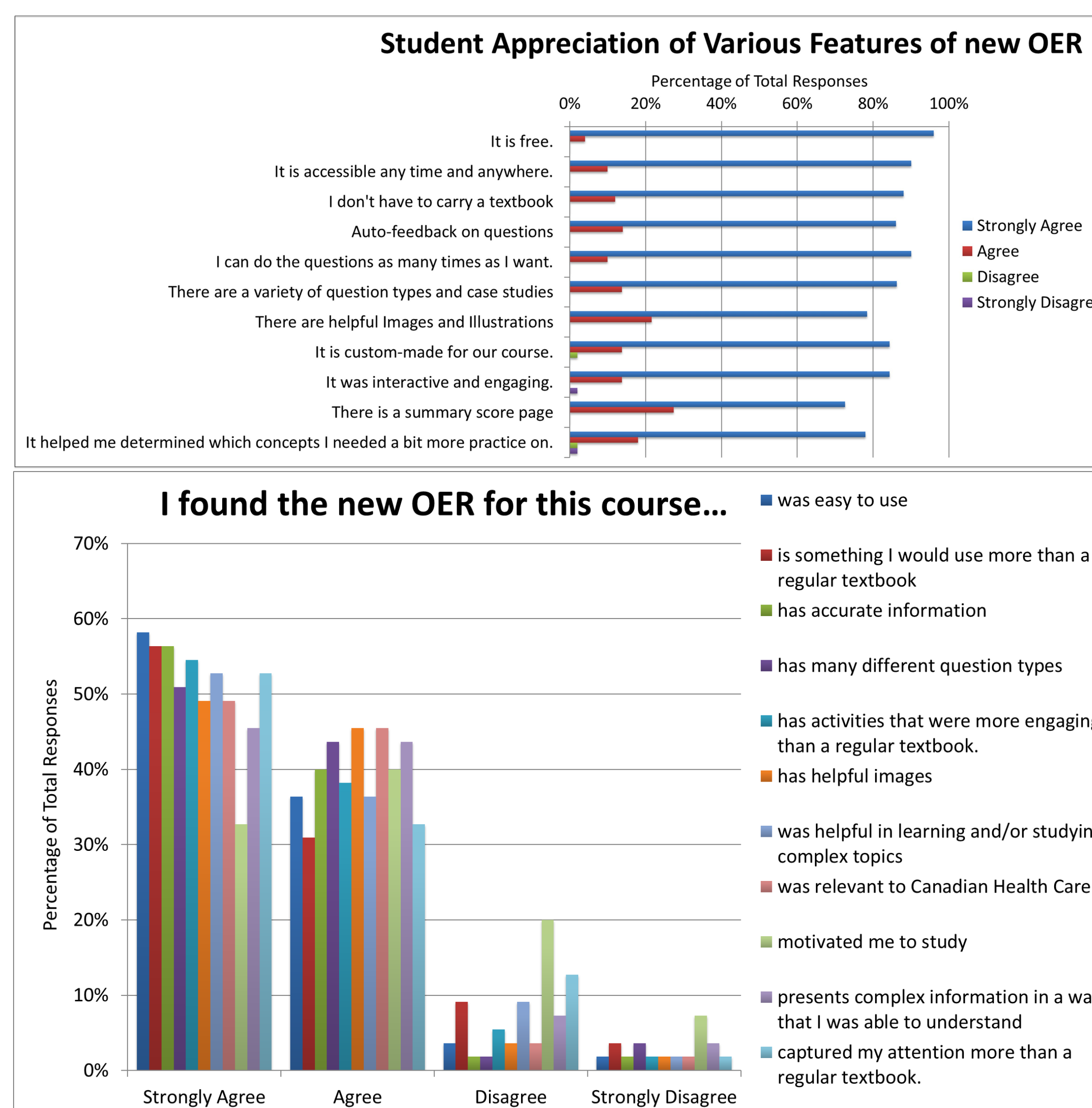
Abstract – New OER e-textbook

Faculty and students from 3 institutions (UBCO, UBCV, and BCIT) are collaborating to develop the first-ever set of Pathology Open Education Resources (OER) which include an e-text, along with language inclusivity guide, learning outcomes, lesson plan ideas, and practice Q&A sets with auto-feedback.

This OER is prioritizing the incorporation of Universal Design for Learning (UDL) features to ensure user friendliness for all learners. The aim was to enhance student learning experiences by ensuring accessibility, interactivity, auto-feedback, flexibility, and high quality current content. Emphasis was placed on creating cost-free course materials with an appealing and engaging layout to reduce student stress while enhancing understanding of common diseases and disorders in Canada. It allows instructors to create self-contained lesson plans in a choose-your-own adventure style, featuring learning outcomes, student interactivity, formative assessments, patient narratives, and scientist spotlights on overlooked scientists to promote diversity in STEM. The OER materials are being designed to promote an anti-racist and anti-discriminatory approach to healthcare.

While still a work in progress, portions of the OER were delivered to pathology courses in Fall 2023, featuring over 1000 interactive, auto-feedback practice questions. Student satisfaction was assessed through surveys approved by BREB and will inform future development. Surveys were anonymized and blinded to the instructor of the course.

New OER – Student Feedback

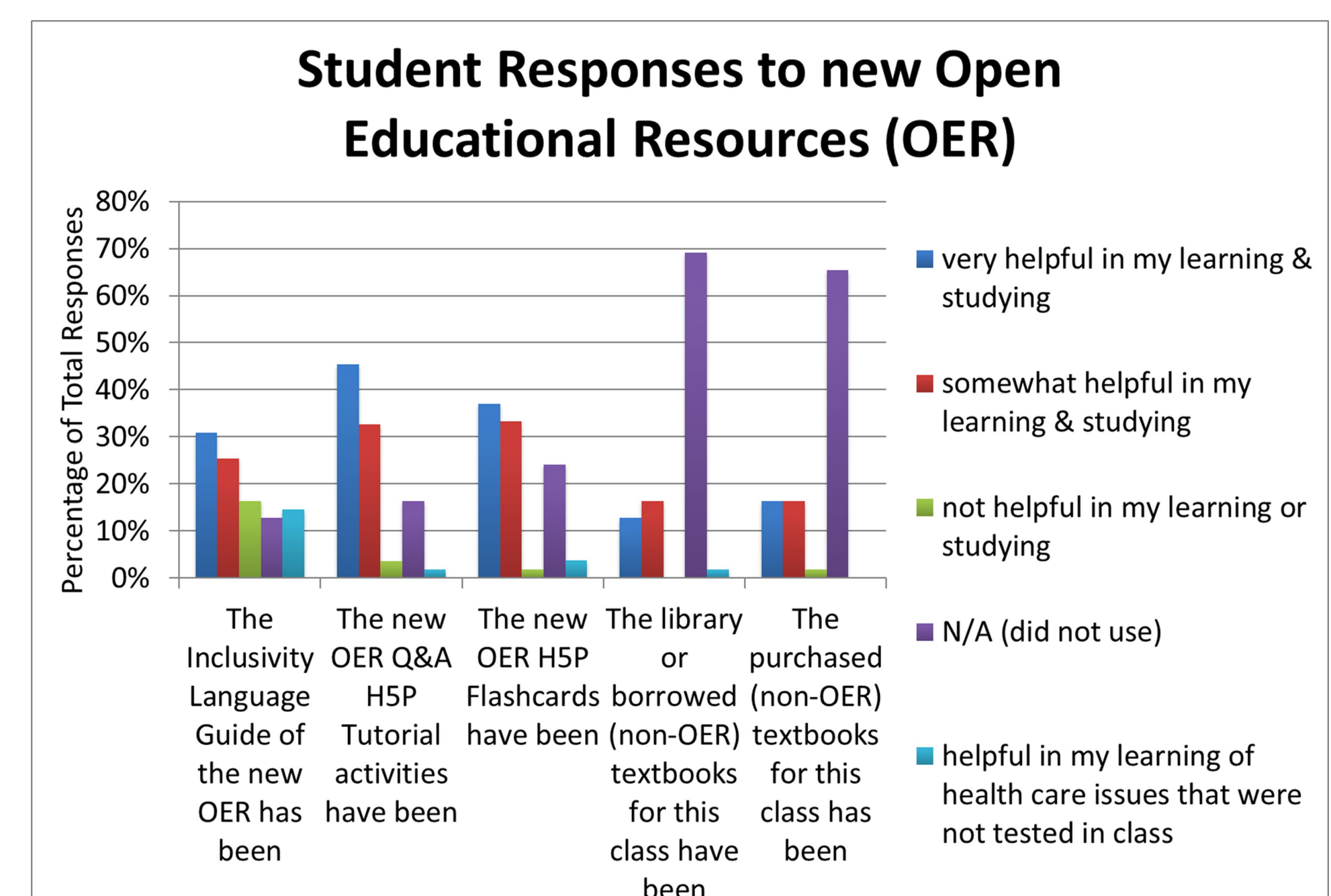
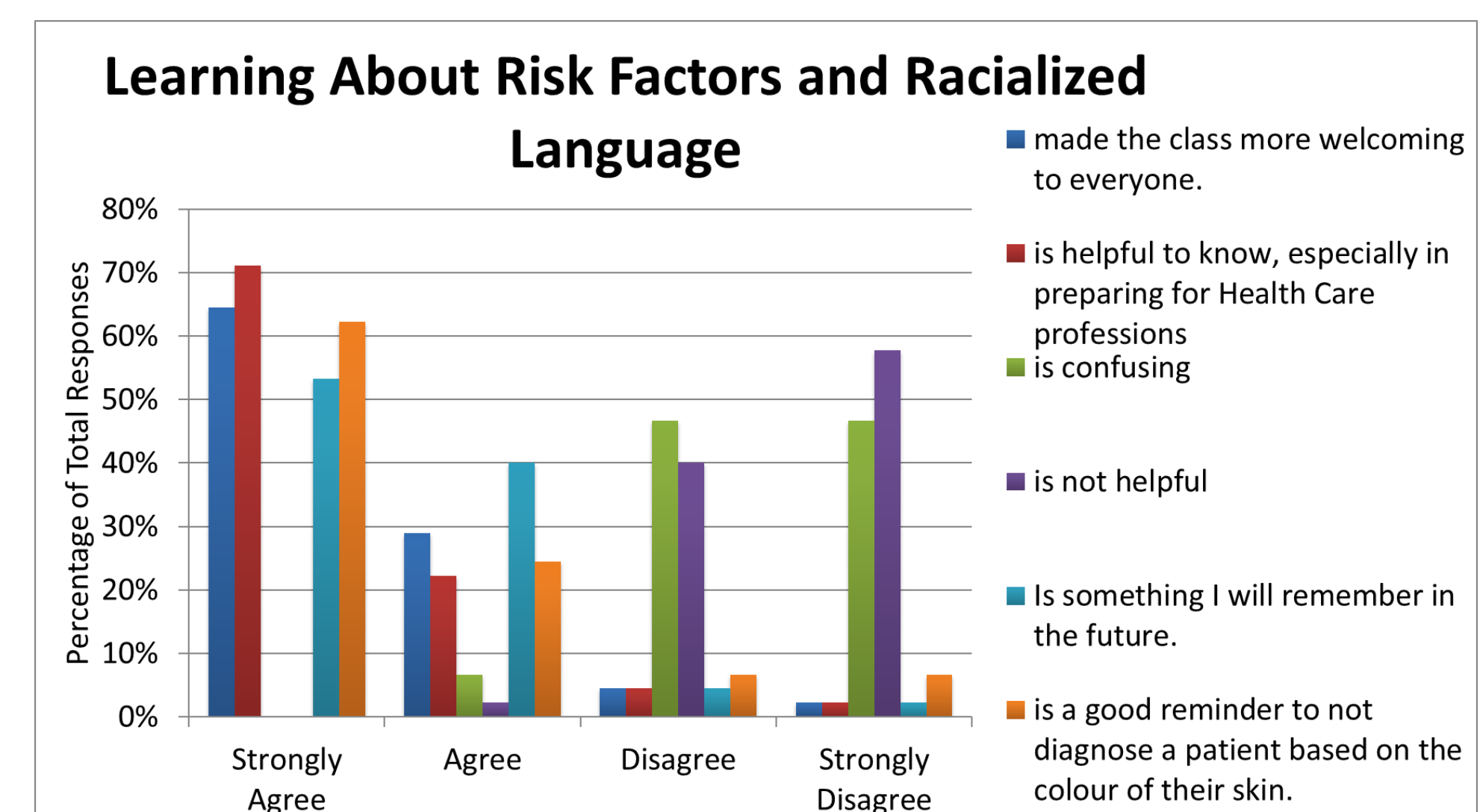


Language Inclusivity Guide for Health Care Students

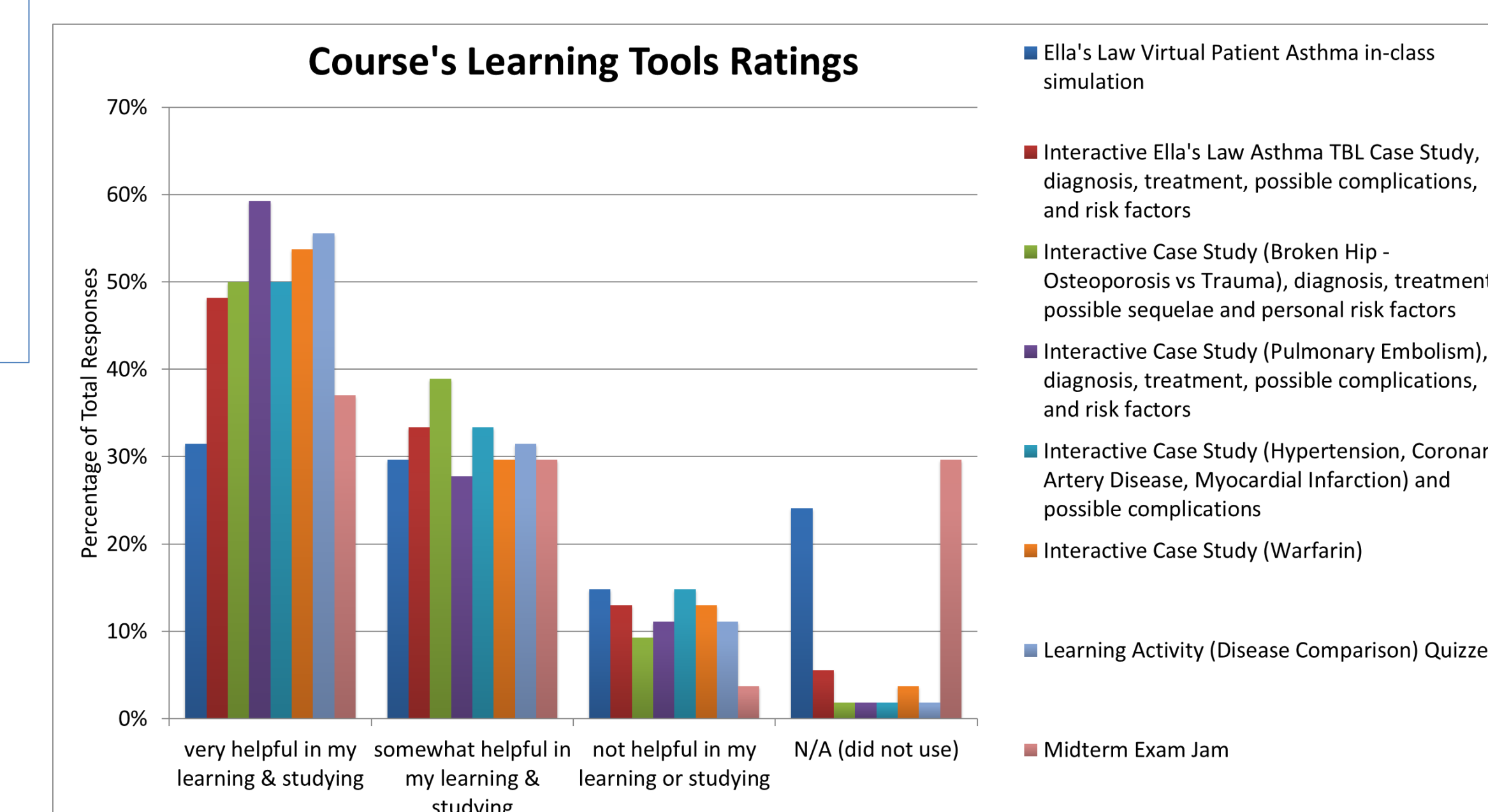
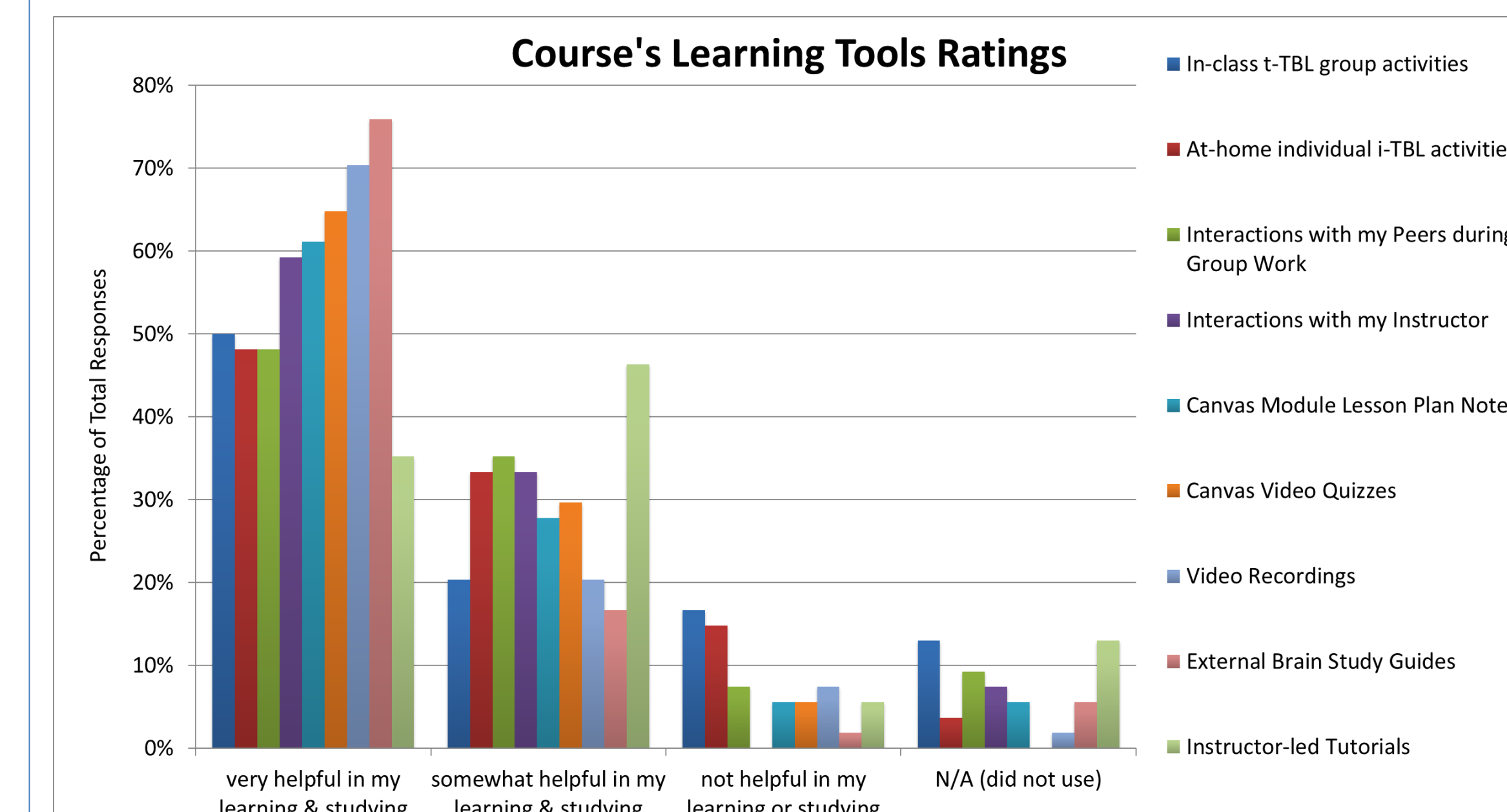
Table of Contents

- Guidelines for Using Inclusive Language in Higher Education and the Workplace
- Diversity in Science
- Goal of this Language Guide
- Indigenous Land Acknowledgement
- Canadian Human Rights Act
- Discrimination, Prejudice, Bully, Stereotypes, and Microaggressions
- Person-First Language and Identity-First Language
- Biological Sex and Gender Identity:
- Privacy and Human Rights
- Sexual Identity and Sexual Orientation
- Labeling
- Marital Status and English Honorifics (Titles and Terms of Address)
- Gendered Diseases and Procedures:
- Midwives and Doulas
- Ageism
- Ableism
- Body Shape Discrimination and Body Shaming
- Skin colour, Ethnicity, Place of Origin, and Immigration/Refugee Status
- Mitigation of Bias in the Workplace and Community at Large

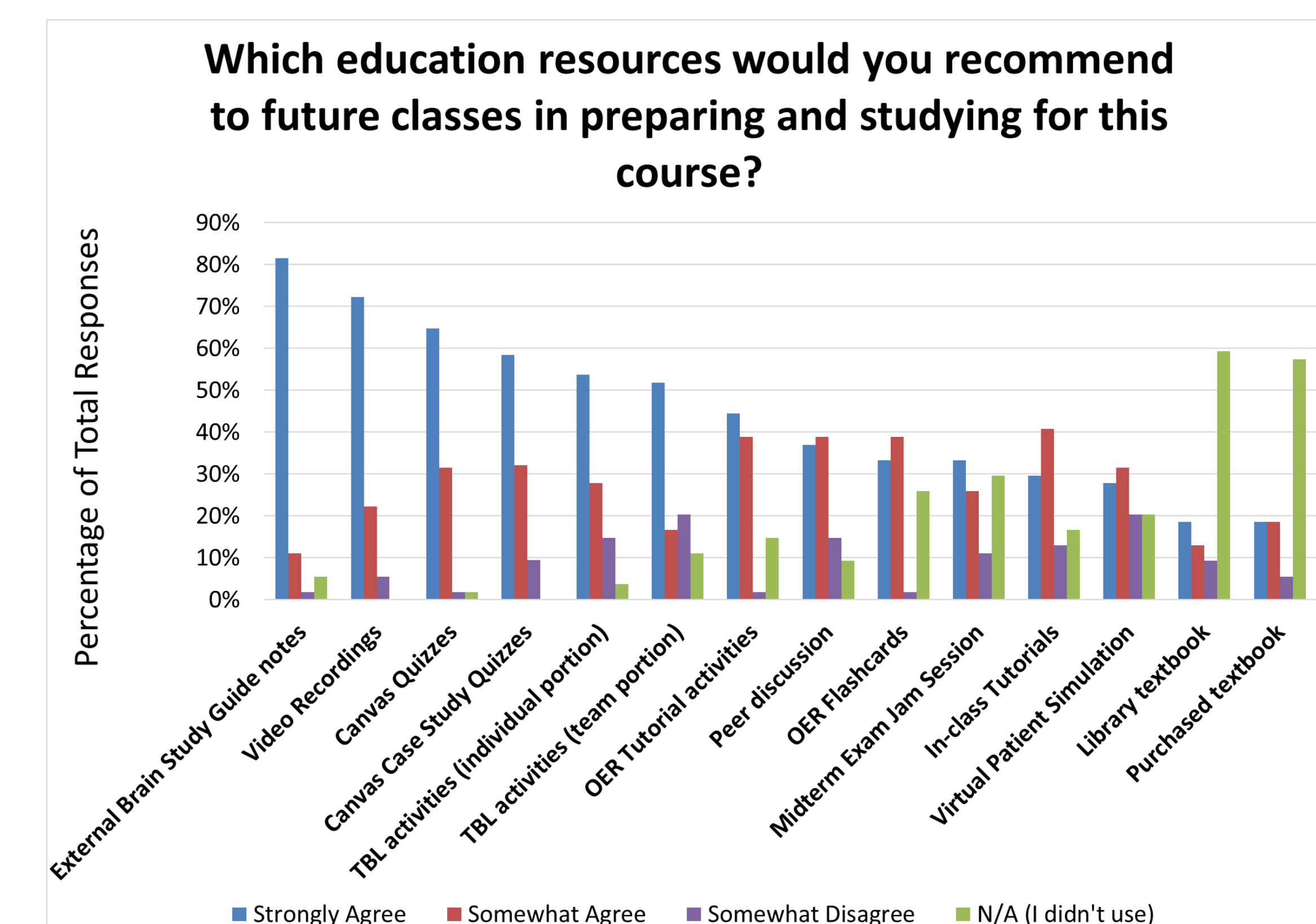
H5P Practice Q&A Study sets



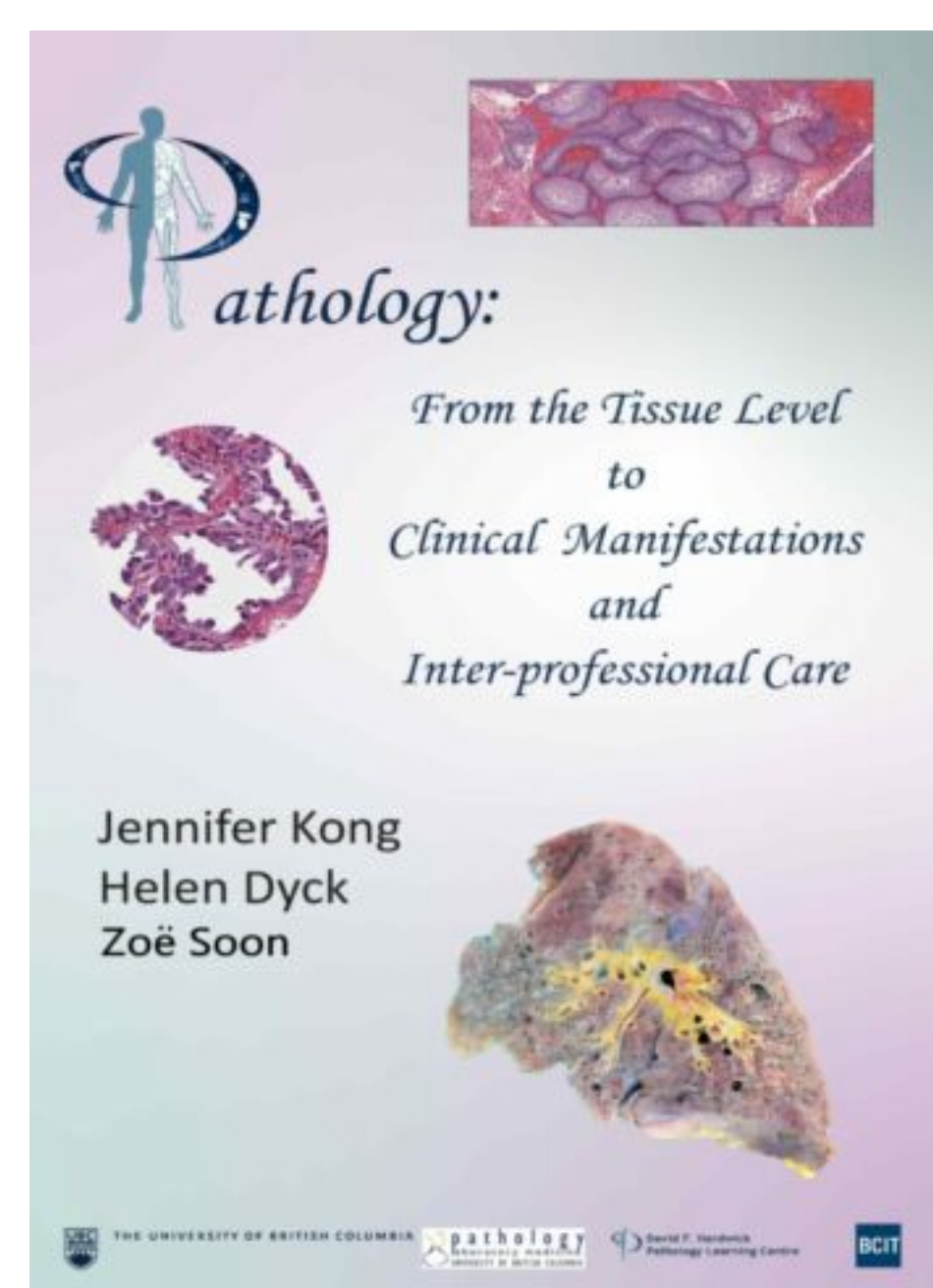
Student Ratings of Course's Learning Tools



Student Recommendations for the Future



Universal Design for Learning



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Provide Multiple Means of Engagement

- ❖ **Recruit Student Interest:**
 - ✓ New OER contains relevancy to real world with Case Studies and Patient Narratives, in addition to information that is immediately relevant and crucial to becoming a health care professional.
 - ✓ New OER contains inclusive language and diversity in STEM spotlights, case studies and narratives designed to be relatable to all learners.
- ❖ **Sustain Student Effort & Persistence:**
 - ✓ New OER will provide ideas for lesson plans & opportunities for Peer Learning (e.g., choices of Team-Based Learning (TBL) activities, and group work assignments (written and oral).
- ❖ **Assist Student Self Regulation:**
 - ✓ New OER contains Q&A sets with auto-feedback for students to monitor their own learning in a manner that is autonomous.
 - ✓ New OER contains learning outcome lists for each section.

Provide Multiple Modes of Representation

- ❖ **Perception:**
 - ✓ The new OER uses font and images that are colour-blind friendly and compatible with software reading devices.
- ❖ **Language & Symbols:**
 - ✓ The New OER contains a glossary as well as interactive vocabulary study tools (e.g., flash card, fill-in-the blanks, labelling, video clip tutorials).
- ❖ **Comprehension:**
 - ✓ New OER content reflects learning outcomes specific to the courses it supports.
 - ✓ New OER content is supplied through multiple means (text, images, diagrams, video clips, Q&A activities), all closely coupled to in-class course content (lecture notes, lecture activities).

Provide Multiple Opportunities for Action & Expression

- ❖ **Physical Action:**
 - ✓ New OER is portable, accessible anytime, anywhere
 - ✓ New OER will provide opportunities for Active Learning (text will be coupled to mix of interactive digital and ideas for in-class activities (hands-on, group, individual, TBL)
 - ✓ New OER is designed in a "choose your own adventure" style for instructors & students.
- ❖ **Expression & Comprehension:**
 - ✓ Student Q&A involves multiple question types (labelling diagrams, short answer, fill-in-the blank, put-in-order, highlight the correct word, crosswords, etc.).
- ❖ **Executive Functions:**
 - Q&A sets are auto-marked and deliver summary score sheet at the end of each one.
 - Q&A sets are repeatable.

Acknowledgement

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Special thanks to our many Students Assistants that have contributed to this OER and are fully listed on pressbooks.bccampus.ca/pathology

We would also like to extend gratitude to the students in our classes. Many classes have been utilizing our course OER pages as we produce them and have provided excellent feedback. Our students are dedicated to education, life-long learning, caring for others, and are such a joy and inspiration. This OER is dedicated to students, educators, and the global community.



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