

BACKGROUND

Electronic textbooks (e-textbooks) have become a commonly used form of educational technology in North American universities. Transitioning from paper texts to e-textbooks has been considered revolutionary in terms of enhancing student learning. Students termed the 'net generation' have grown up with technology and it is assumed they embrace technological options such as e-textbooks. However, this technology in higher learning has been met with hesitation.

After adopting a single-source platform for all textbooks in the Dental Hygiene program, a study was launched to evaluate the use of this platform from both the instructor and student perspective.

PURPOSE

This mixed methods research study investigated student and faculty perspectives of mandatory e-textbook use in a Canadian dental hygiene program.

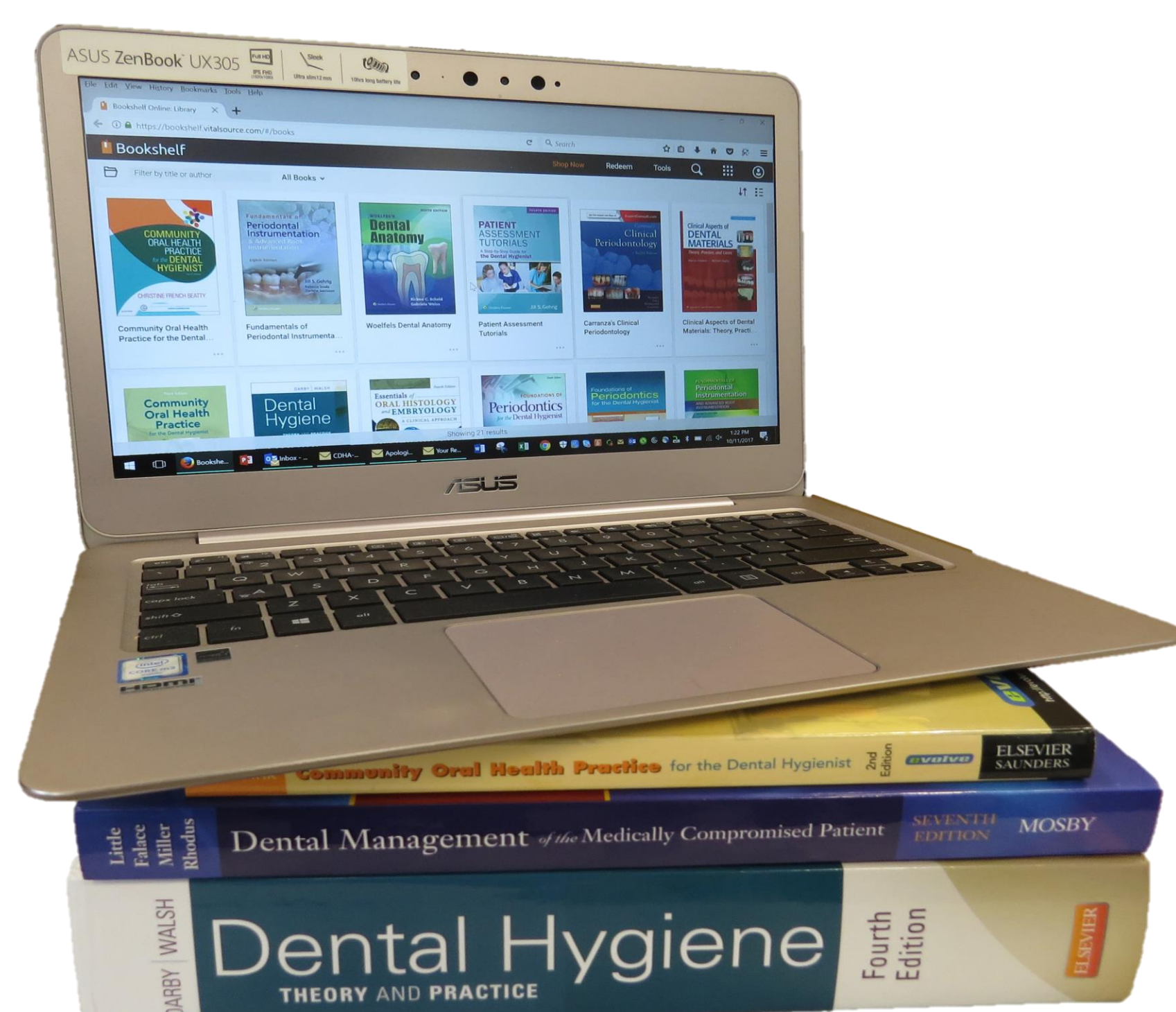
METHODS

Ethics approval was obtained from the University of Alberta Research Ethics Board (#Pro00072859). The student questionnaire was modified from Lai and Ulhas' (2012)* questionnaire examining convenience (CON), compatibility with learning style and lifestyle (COM), perceived enjoyment (PE), and perceived usefulness (PU) utilizing a five-point Likert scale (strongly disagree [1] to strongly agree [5]).

Frequency of student use for each e-textbook was collected. Open-ended questions captured benefits and barriers to utilization. A focus group gathered perspectives from faculty who required an e-textbook in their course(s).

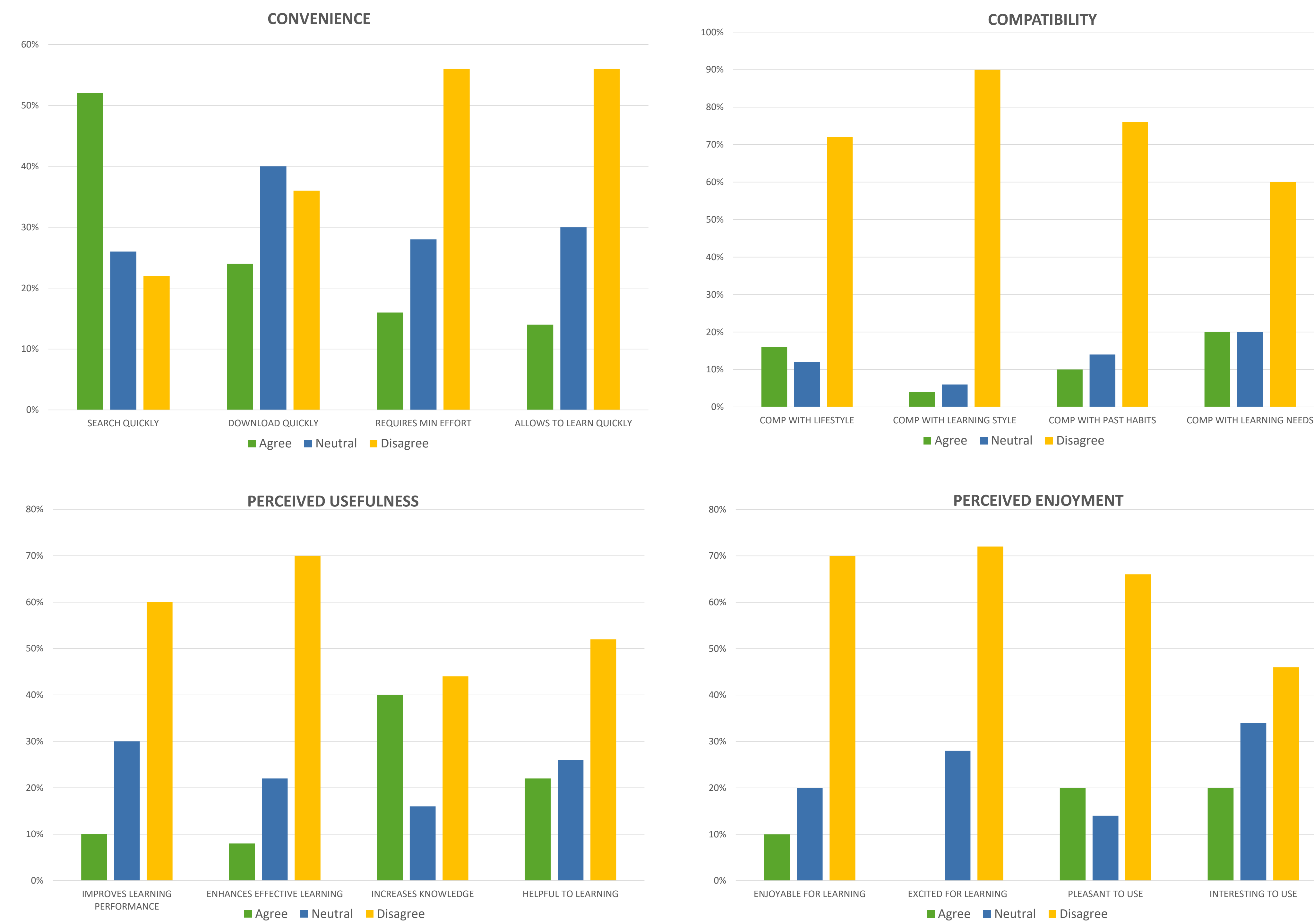
Descriptive statistics were calculated for questionnaire data from students (n=50, 48% response rate), and narrative analysis was used for open-ended student questionnaire questions and faculty focus group transcript (n=5).

*Lai, J., Ulhas, K., (2012). "Understanding acceptance of dedicated e-textbook applications for learning: Involving Taiwanese university students", The Electronic Library, Vol. 30 Issue: 3.



RESULTS

USING E-TEXTBOOKS: STUDENT PERSPECTIVE



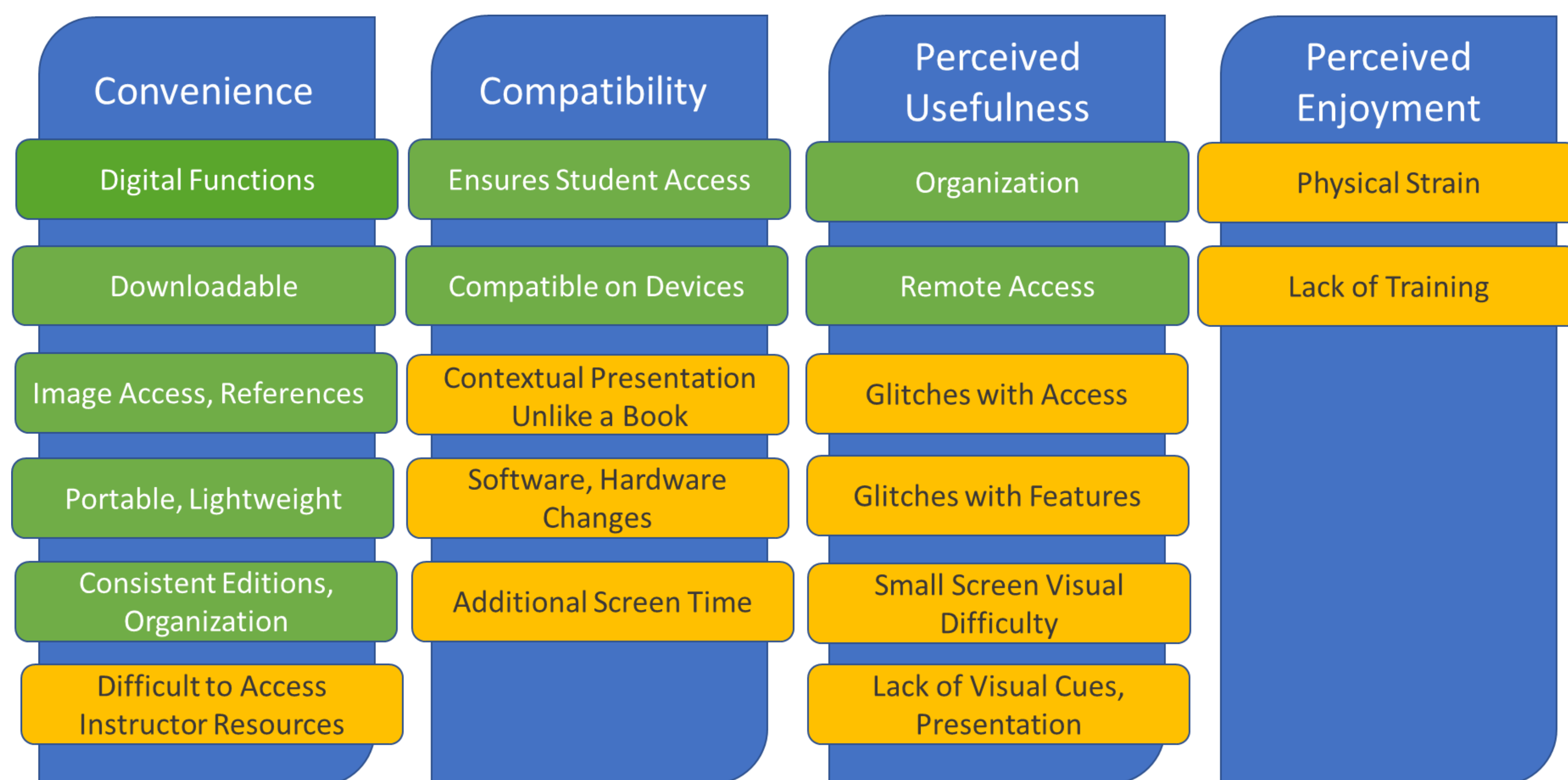
Instructor Comments:
 "I like to use it for images"; "searching terms"; "hyperlinking"; "it will pull up every reference"; "all in one place"

"problematic"; "It would just be nice to have that book to look at and not have to be at the screen all day"; "You don't get the context"; "we don't emphasize the textbooks ourselves because...we have some challenges with using it ourselves"; "To be truly revolutionary it should be more 3D, active displays, audio..."

Student Comments:
 "We did not have to lug around heavy textbooks" "Could also easily transfer images and cited sources" "Quick and easy to access"

"The program is not very user friendly"; "I prefer learning from books. I write in the margins and highlight...This is a more effective method of learning for me"; "It would have been nice to be given the option to either purchase the e-textbooks or buy them as hard copies"; "expensive and I rarely used it"

USING E-TEXTBOOKS: FACULTY PERSPECTIVE



DISCUSSION

Overall, students disagreed with the utility of the e-textbook platform, scoring all factors (convenience, compatibility, perceived usefulness and enjoyment) with an average score below neutral. A high correlation between all factors suggest the utility factors were uniformly rated by students. On average, 71% of students did not use their e-textbooks greater than once a month, but relied on instructor lecture handouts.

Respondents indicated that the benefits to using e-textbooks were few, and challenges were many. They appreciated having portable access to readings, electronic citations and digital images. Platform components such as searching and cross referencing were seen by students and faculty as convenient features, however, many cited physical strain with the associated increase in screen time.

Both students and faculty indicated that contextual differences, memory space and program glitches were barriers diminishing the value of e-textbook utilization. "It's almost enough that you want to throw the computer against the wall". Reflecting on ease of use, one respondent indicated an e-textbook "isn't any more user friendly than a standard textbook".

A common theme in student responses was also the impact of e-textbooks on their learning: "I am a tactile learner and I would prefer something that I can physically highlight and write notes in". Many students cited the cost, lack of choice, and under-utilization of their e-textbooks as negatively impacting their usage.

FUTURE CONSIDERATIONS

It became apparent while analyzing responses that there were many misconceptions regarding the utilization of e-textbooks such as licensure access and feature capability. It is evident that there is potential to increase the training opportunities of faculty and students, which may alleviate some of the frustrations with an e-textbook platform.

There is also the potential of e-textbooks to be more than merely a digital version of a paper textbook. With multi-media capabilities and advances, there is the potential for e-textbooks to become more of an online learning environment, rather than just a digitized text reference.

ACKNOWLEDGMENTS

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