Data Mining Student Notes and Questions

University of Michigan

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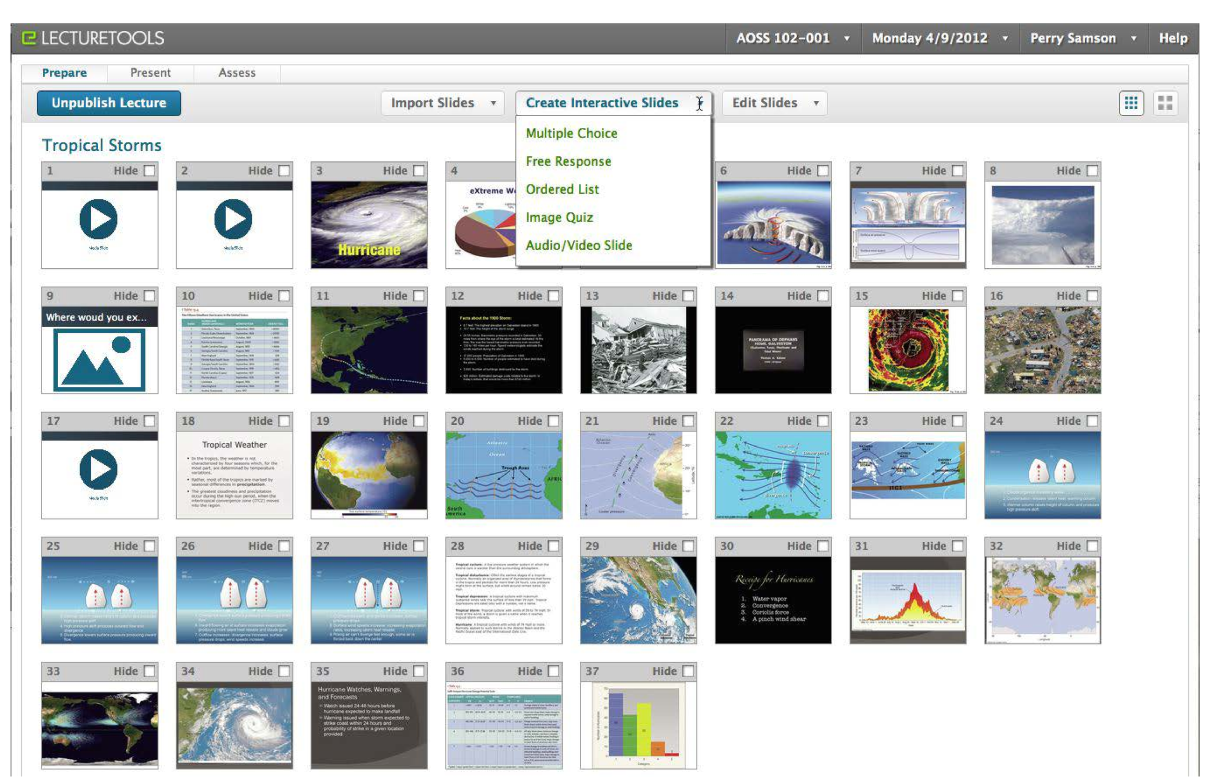
For the Instructor

Goals

A) Increase options for students to actively participate in class.
B) Mine student input to provide more informed guidance

Technology

1) Prepare Lecture in LectureTools
- Upload slides as PowerPoint® or PDF file.
- Add interactive questions and videos.
- Hide selected slides if desired.



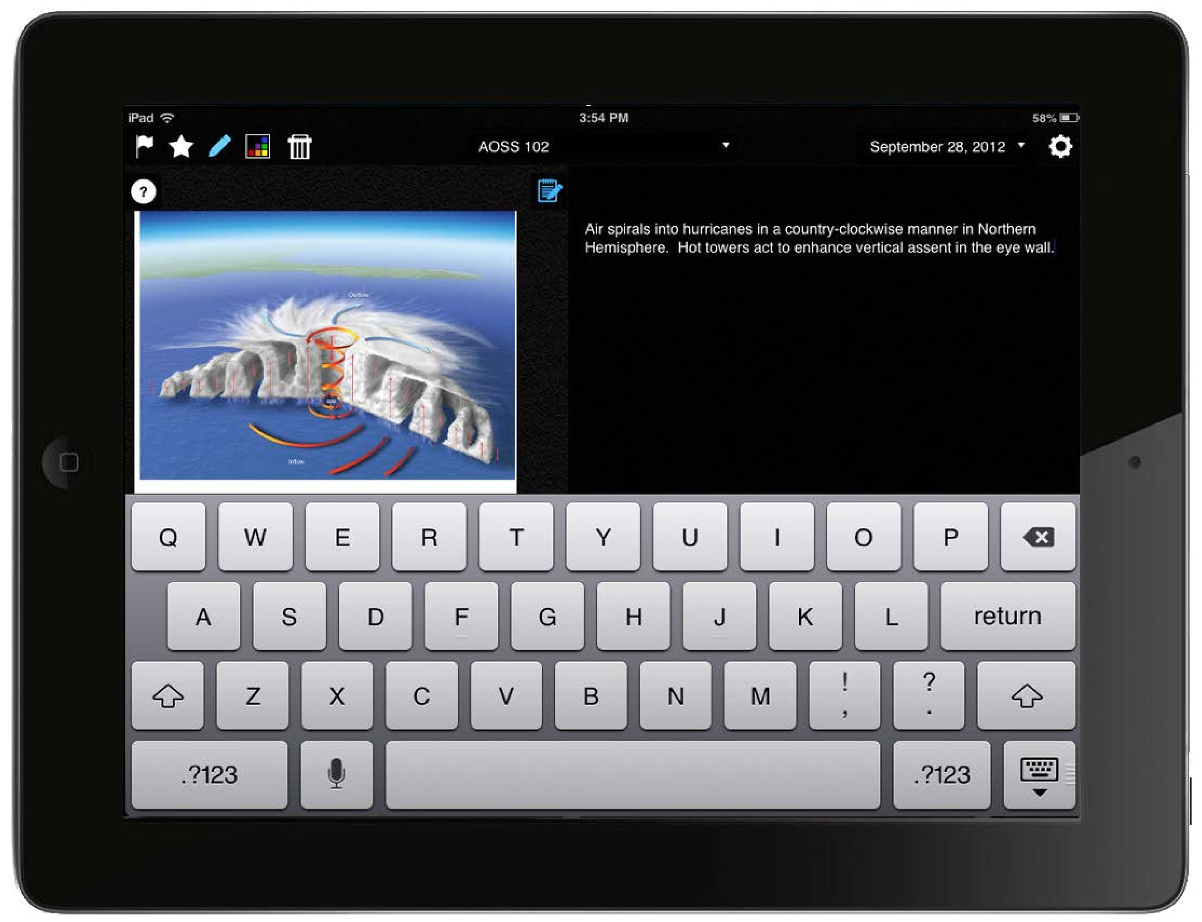
2) Present Lecture
- Show slides/videos
- Reveal questions/hidden slides as desired
- Display results from student answers
- View student questions

3) Viola!
- Students' notes and questions are parsed and mined for keywords and phrases.
- Feedback provided to instructor on what students heard and noted.
- Students' receive "Lecture Cloud" of words with linkages to questions and resources.

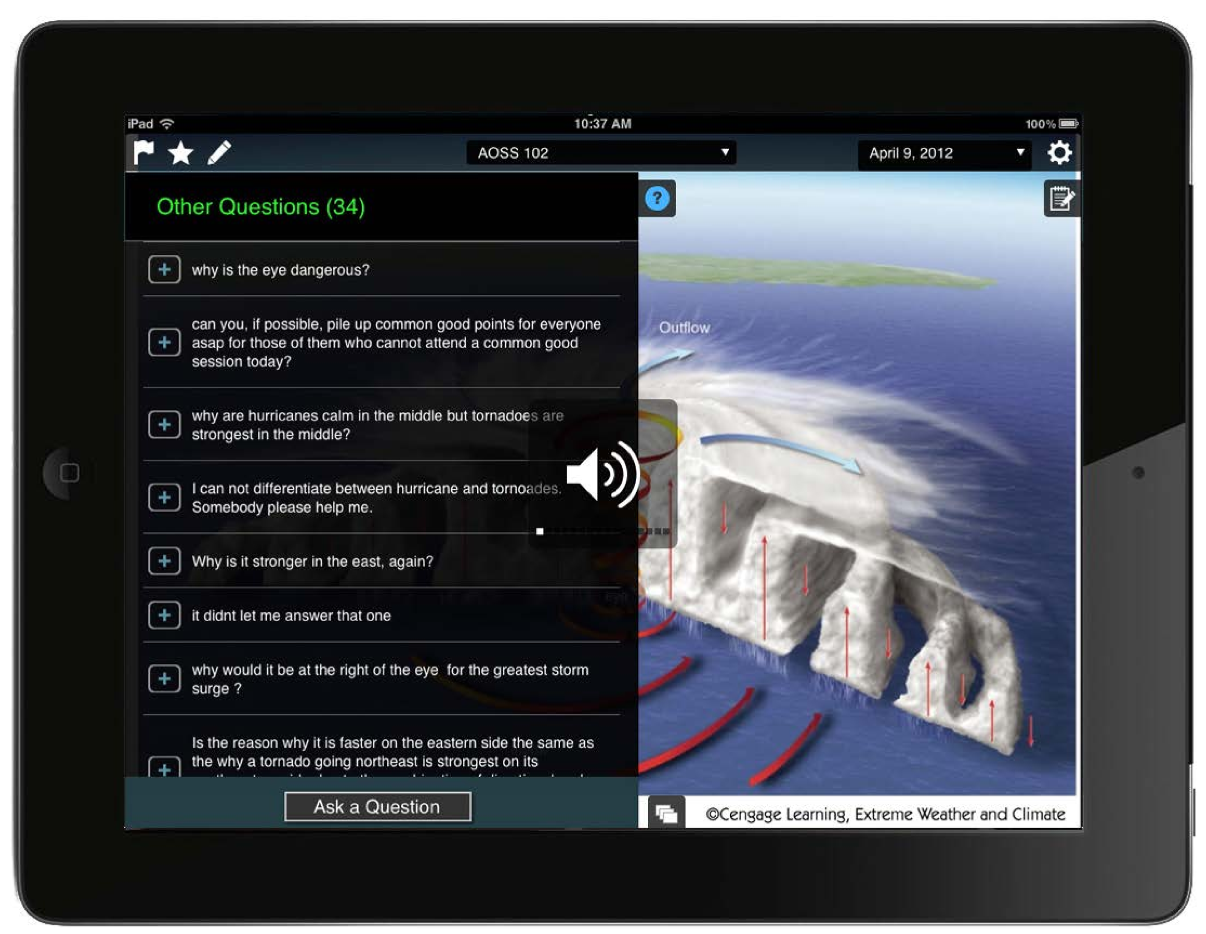
4) Review Participation
- View attendance
- Review student questions
- Identify slides students found confusing

For the Student

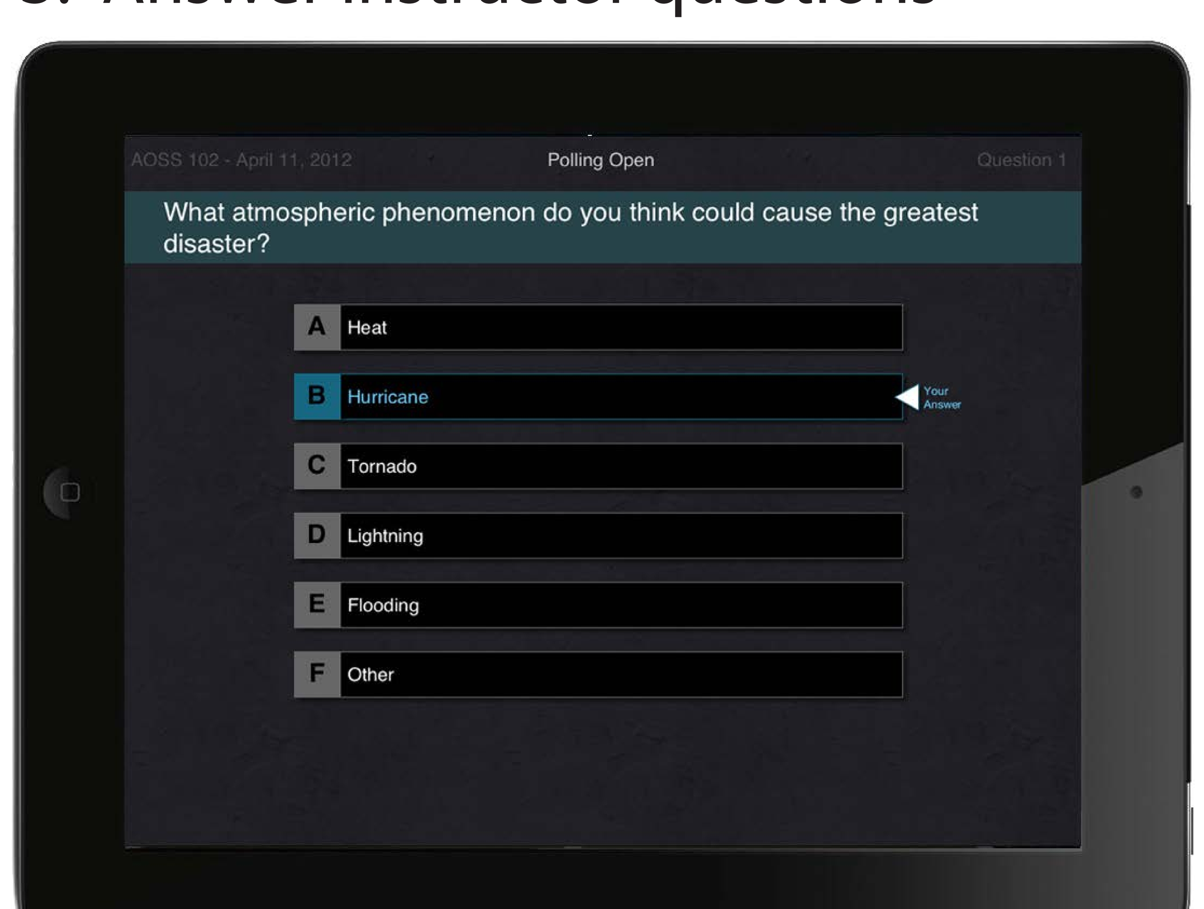
1. Take notes linked to slides



2. Ask questions/See answers



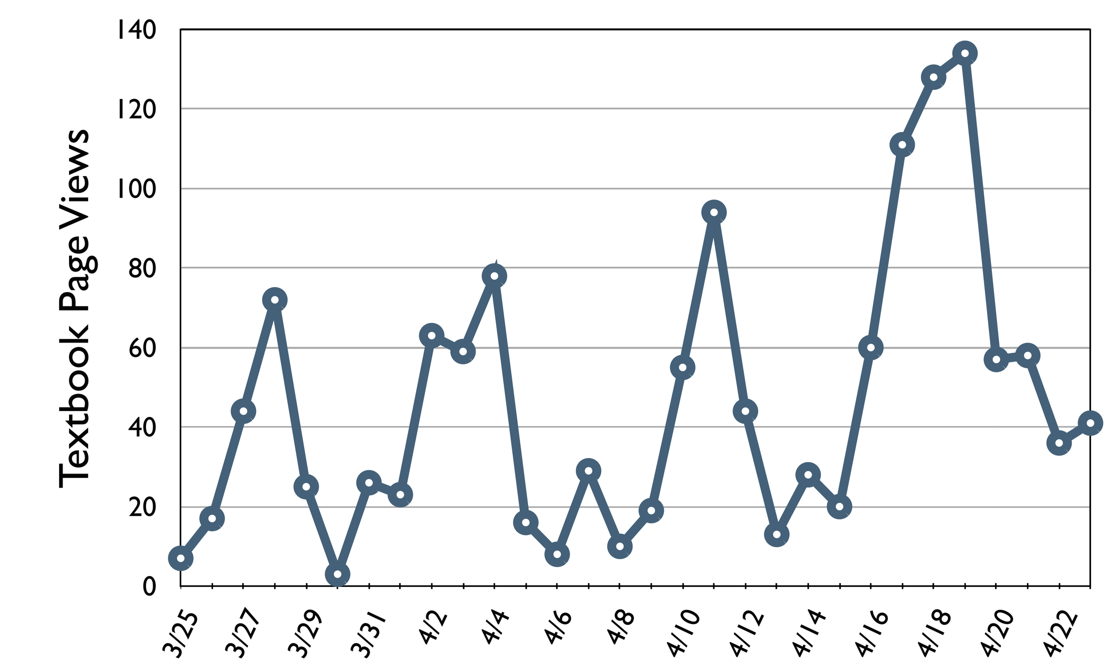
3. Answer instructor questions



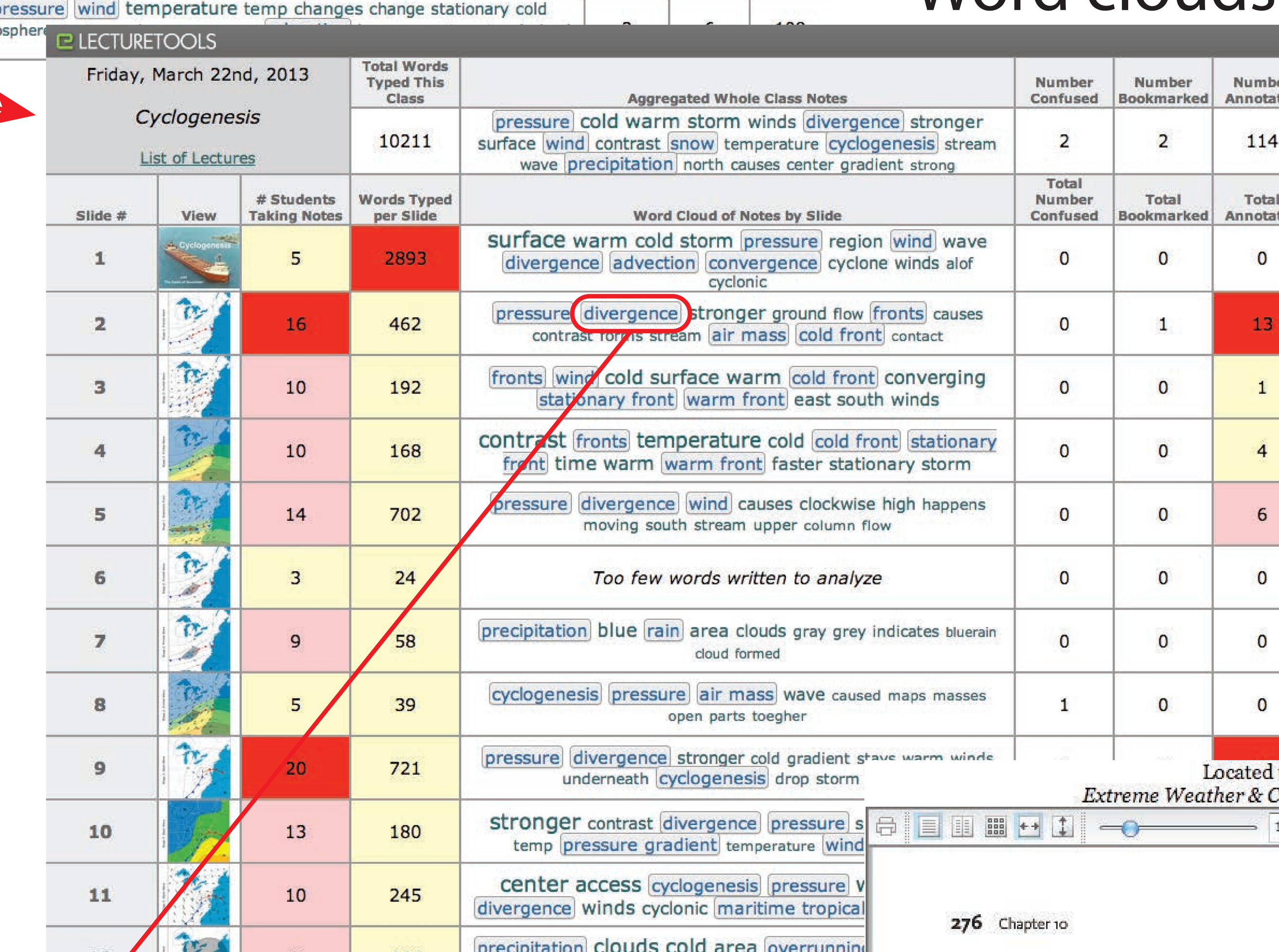
Mining Products

Word clouds by lecture

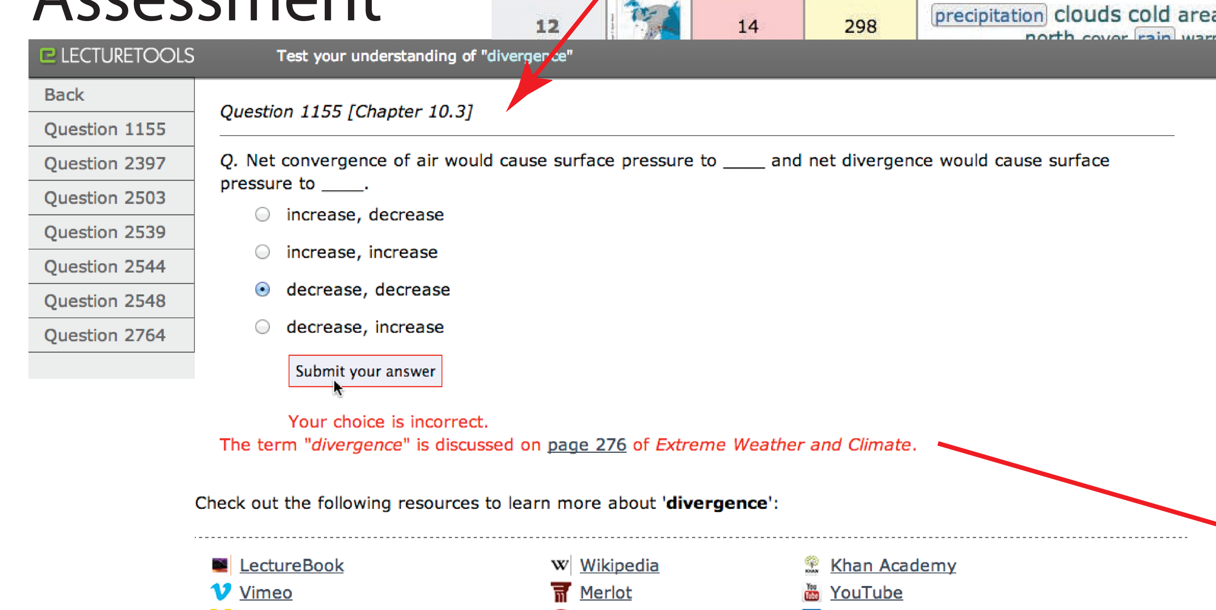
Usage statistics



Word clouds by slide



Assessment



Resources

Located the term "**divergence**" on Page 276 of *Extreme Weather & Climate*, Ahrens & Samson, ©2010 Cengage Learning