Improving the Student Experience: Summary of Winter Quarter 2012 Assessment Data on the Use of Tegrity

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Introduction

UW Information Technology (UW-IT) recently rolled out Tegrity, a cloud-based recording technology to all three University of Washington (UW) campuses. Tegrity allows anyone with a computer, webcam, and microphone to create a recording, so that video capture is no longer restricted to classrooms equipped with recording equipment. Tegrity captures audio and/or video of the presenter, as well as the materials displayed on the computer.

As part of the rollout of this technology, UW-IT is conducting an assessment to determine:

- How are instructors and students using Tegrity?
- How can the UW best support instructors and students in the adoption of Tegrity?
- What are the best practices for using Tegrity to support teaching and learning?
- What additional capabilities or support would users like to see in the future?

Data Collected

- *Tegrity Usage Data*—We analyzed data from Tegrity on what courses used Tegrity during the quarter, how many recordings were created, how many views each recording had, and similar information.

- *Student Survey*—Towards the end of the quarter, we asked instructors in a subset of courses using Tegrity to forward a survey to their students. The survey asked about students' listening habits and experience with Tegrity. 346 students and 16 classes responded.

- *Instructor Interviews*—We interviewed six instructors from the Seattle campus about their experience using Tegrity.

About this Report

In this report, we present a summary of assessment data collected for Winter Quarter 2012, providing a snapshot of how faculty and students are using Tegrity, what they like best about the service, areas that could use improvement, and potential future uses. The report is assembled and formatted to provide a brief overview of the data collected to date, with individual pages showing different aspects of how faculty and students are using and responding to Tegrity. Data are currently being collected for Spring Quarter 2012. A full assessment report, including conclusions and recommendations, will be available this summer.

Winter Quarter 2012: Tegrity Use Cases

In the Classroom

Tegrity supports learning in myriad ways by allowing instructors to record inside or outside of the classroom. Recordings of class content provide students with additional review opportunities.

Traditional Lecture Capture
Most instructors used Tegrity to record lectures or other classroom activities, capturing both the instructor as he or she presented and anything displayed from their computer.

Distance Learning
An administrator in Health Sciences used Tegrity to make lectures available to students at Montana State University as part of the WWAMI program. The lectures, given by a rotation of medical specialists, were recorded in the classroom, with microphones to capture both the lecture and student questions. Recordings were later posted online for the MSU students.

English Language Learners
A professor in the College of the Environment, teaching a course with 115 students reported that non-native English-speaking students appreciated the additional review that online recordings made possible.

Cost Savings
Instructors in the Department of Rehabilitation Medicine wanted to meet the needs of their largely non-traditional students and provide a way for them to review course recordings online. Program administrators had considered the Media Site platform as a solution for capturing lectures, but found the start-up costs (approximately $10K per classroom) prohibitive. Researching other options, they found information about Tegrity on a UW-IT Web site and are now using Tegrity.

Beyond the Classroom

Creating recordings at home or in the office allows instructors to recover time lost to weather or medical emergencies. Tegrity's independence from classroom-based hardware can save money and time by making it possible to record content virtually anywhere an Internet connection is available.

Medical Situations: Instructor
When a senior lecturer in Economics broke her ankle and could not get to campus, she needed to find a way to provide crucial content for her 800 students. Within two days of a tutoring session with one of UW-IT's instructional technologists, the instructors recorded four of the six lectures she would eventually provide. "After the first hour of working with Tegrity, the process became pretty intuitive."

Medical Situations: Student
A student enrolled in a capstone course in Business at UW Bothell had a sudden and prolonged medical situation that threatened her completion of the course. Her professor had heard about Tegrity, and thought it might offer a solution. Both instructor and student were pleased with how easy Tegrity was to use. He noted, "It was intuitive and did not require any special training to use its basic features [of recording and sharing video]" Based on this successful introduction, he plans to use it more widely in the future.
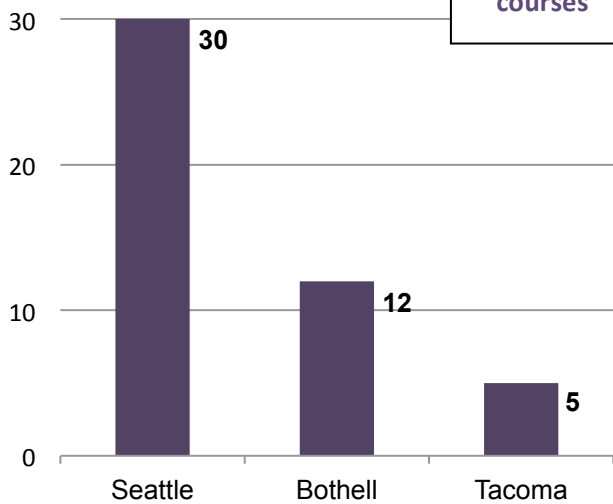
Snow Closures
A lecturer in Chemistry used Tegrity to make up for time lost due to campus closures in January. She recorded two lectures in her office on a tablet, using the mouse to point to content and also to draw on the slides she used. Knowing that the lectures would be reviewed outside of class time also allowed her to walk through more examples than the in-class lecture would have allowed.

Winter Quarter 2012: Tegrity Usage Data
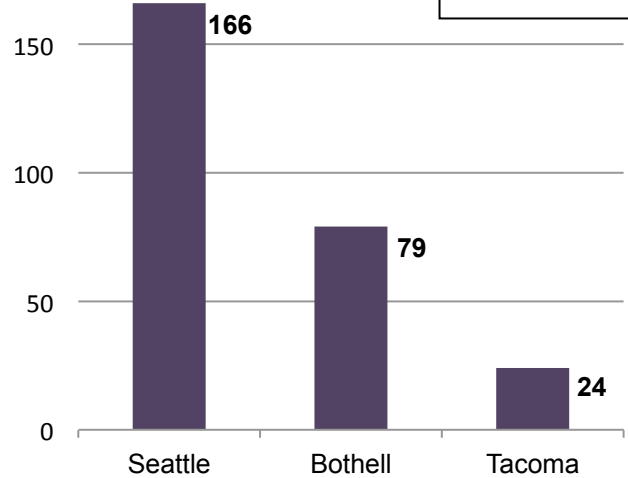
Introduction

Several instructors on all three campuses were early adopters of Tegrity, using it to create one or more recordings for their students. The data below show courses with a "Winter 2012" designation in the course title, with at least one published recording, one viewer, and five views. These data were compiled using Tegrity's reporting and analysis function. Campus and discipline identification were performed manually.
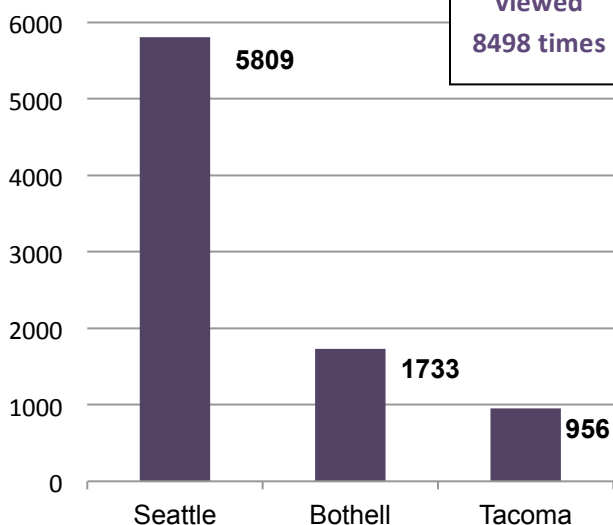
Courses

Tegrity was used in 47 courses

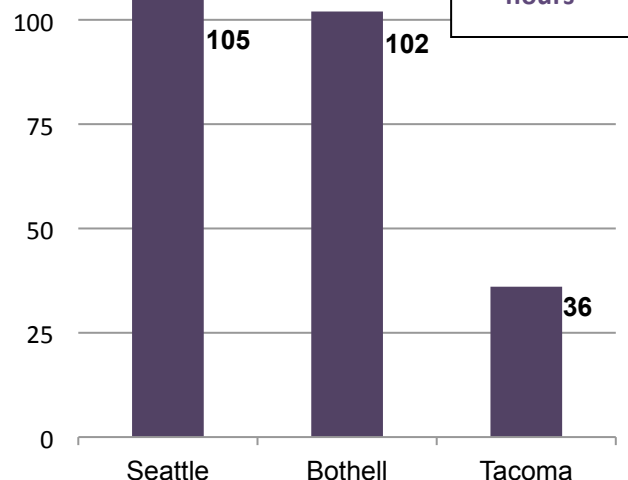| Campus	Courses
Seattle	30
Bothell	12
Tacoma	5

Recordings

Instructors created 269 recordings

Campus	Recordings
Seattle	166
Bothell	79
Tacoma	24

Views

Recordings were viewed 8498 times

Campus	Views
Seattle	5809
Bothell	1733
Tacoma	956

Hours of Recordings

Instructors recorded over 243 hours

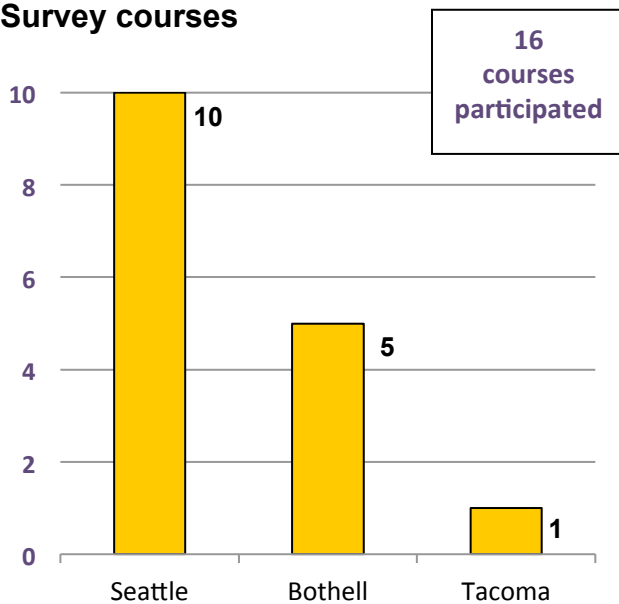| Campus	Hours
Seattle	105
Bothell	102
Tacoma	36

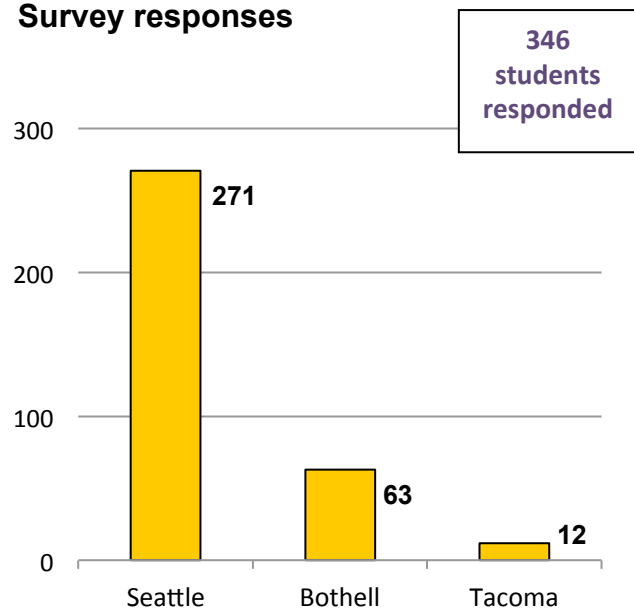# Winter Quarter 2012: Student Survey Responses

Introduction

Towards the end of Winter Quarter 2012, we asked instructors in a subset of courses that used Tegrity to forward a brief survey to their students. Courses were selected based on level of recent activity, as well as representation across campuses and disciplines. The survey asked students about their listening habits, experience with Tegrity, opinions about the service, and support needs. One reminder was sent to participating courses.
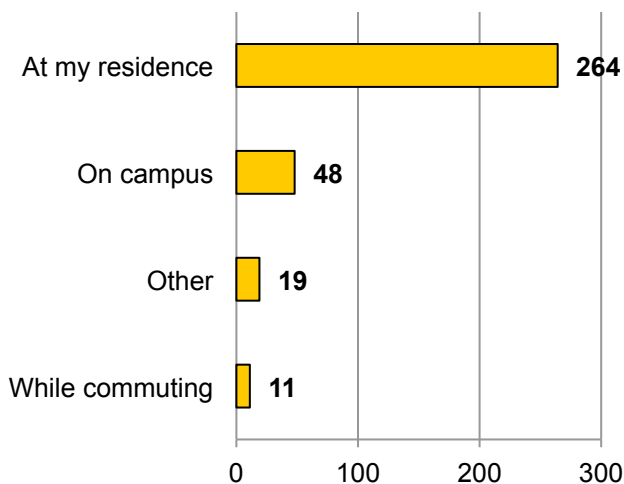
Survey courses

16 courses participated

Campus	Count
Seattle	10
Bothell	5
Tacoma	1

Survey responses

346 students responded

Campus	Count
Seattle	271
Bothell	63
Tacoma	12

Where did you view recordings?

Location	Count
At my residence	264
On campus	48
Other	19
While commuting	11

What device did you use?

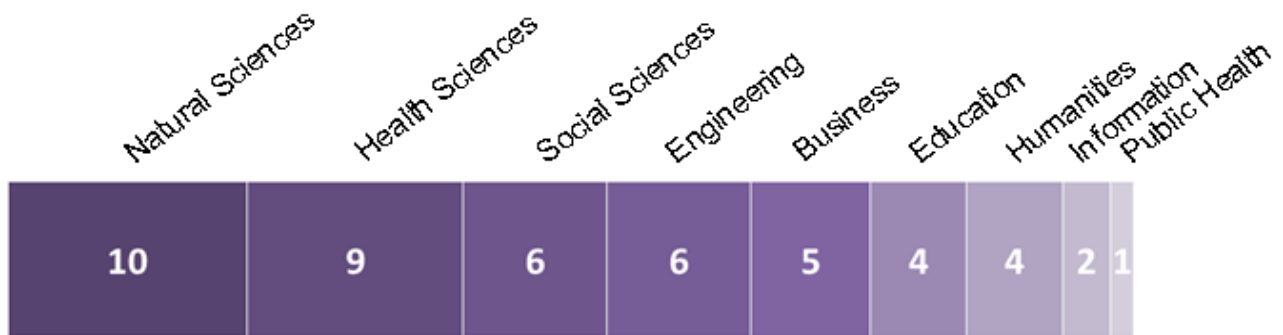| Device	Count
A PC computer	215
A Mac computer	126
Other:	12
Smartphone	7
Tablet	4
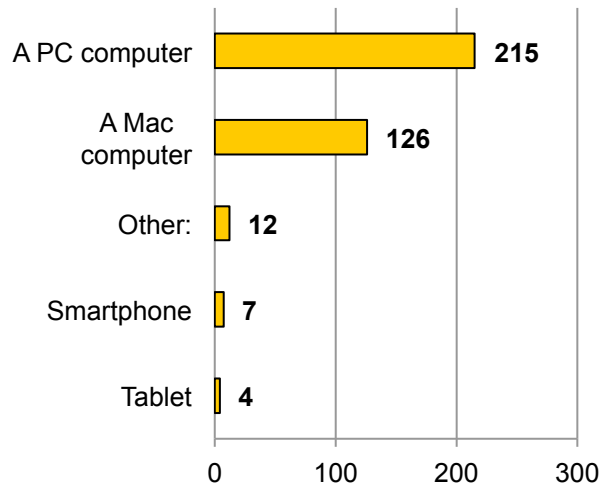
Disciplinary Breakdown

Introduction

The figures below show the disciplinary breakdown of all courses that used Tegrity during Winter Quarter 2012 (top) and courses that participated in the survey (bottom). In this initial phase of adoption, Tegrity was most popular in the Natural and Health Sciences.

Overall Courses Using Tegrity

Natural Sciences	Health Sciences	Social Sciences	Engineering	Business	Education	Humanities	Information	Public Health
10	9	6	6	5	4	4	2	1

Survey Courses using Tegrity

Natural Sciences	Health Sciences	Business	Social Sciences	Engineering	Information	Public Health
6	3	2	2	1	1	1

Primary Student Use: Review of Content

Student Goals for Using Tegrity

Goal	Percentage
Review material for classes I missed	54.5%
Study for a quiz or exam	34.8%
Review material in preparation for class activities	29.5%
Review specific content that I had questions about	27.5%
Review entire recording for a class I attended	19.9%
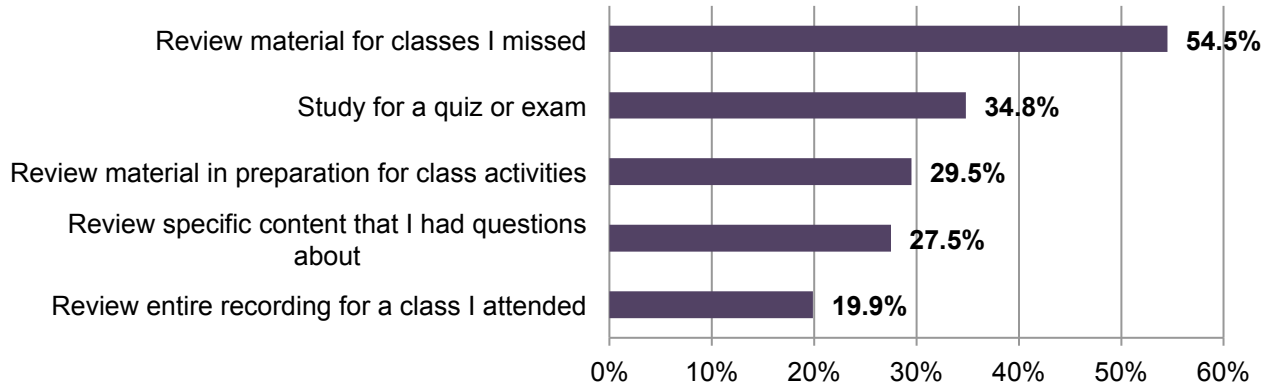
Reviewing Recordings Contributed to My Learning

Response	Count
Strongly disagree	9
Disagree	10
No opinion	58
Agree	148
Strongly agree	116
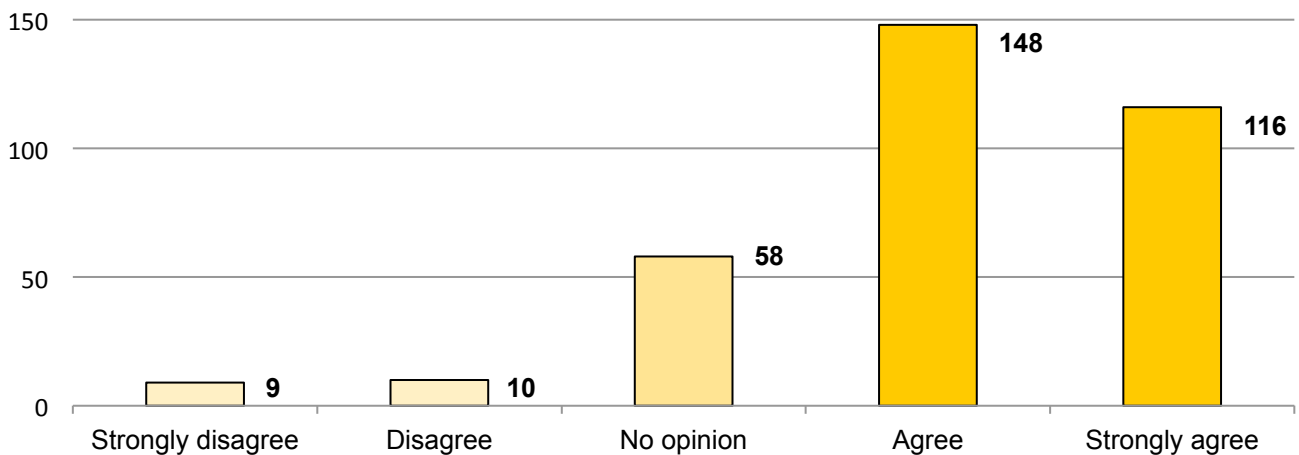
Student Quotes

"I liked being able to pause the lecture and write down notes."

"I reviewed the lecture multiple times, sometimes just absorbing the material, other times actively writing down notes helped me to better and more completely comprehend the material. If [the instructor] made a point that I found confusing, I was able to pause the lecture, reflect, and then double check my conclusion by replaying the lecture. I REALLY valued this tool."

"[Tegrity] really helped me understand the complex technical concepts. Tegrity takes it one step further than me just relying on my notes."

"I'm more of an auditory and visual learner compared to anything else so being able to review it this way was EXTREMELY helpful in studying."

Additional Student Use: Academic Continuity

Introduction

Tegrity helped students catch up when they did miss class (e.g., cancellations, illness), but did not make most students less likely to attend class. Students appreciated the academic continuity Tegrity provided.

The availability of Tegrity recordings made me less likely to attend class
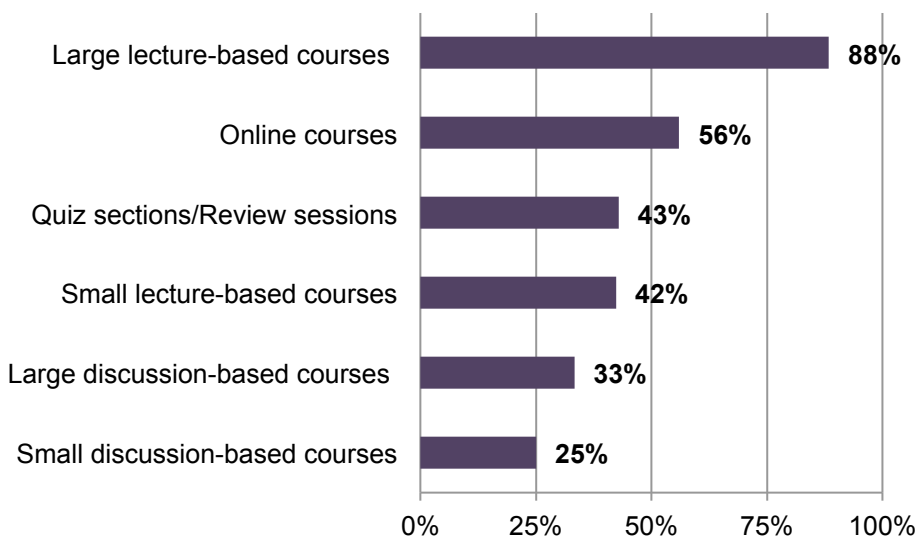
Response	Count
Strongly disagree	109
Disagree	100
No opinion	84
Agree	37
Strongly agree	14
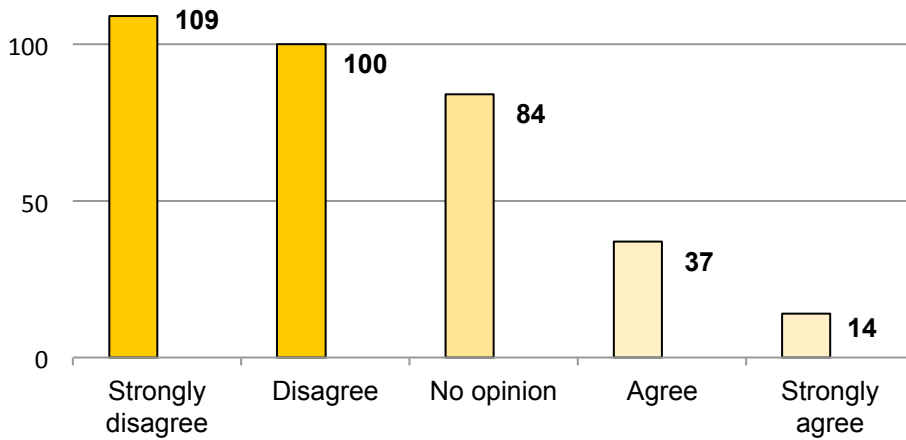
Student Quotes

"I liked the convenience of it. It meant that there did not have to be an additional lecture scheduled or that I would have to review the material on my own that we missed due to the snow days."

"Great way to catch up on days when you can't be in class in person."

Future Use of Tegrity

What types of courses do you think Tegrity would be useful for?

Course type	Percentage
Large lecture-based courses	88%
Online courses	56%
Quiz sections/Review sessions	43%
Small lecture-based courses	42%
Large discussion-based courses	33%
Small discussion-based courses	25%

Student Quotes

"I feel it would be beneficial for all classes to be recorded, and uploaded onto [Tegrity] for students to be able to further absorb any concepts that were lost in translation during in-class lecture."

"Tegrity added another dimension that I found highly useful. For class content that does not require interaction, it worked quite well."

Winter Quarter 2012: Overview of Instructor Interviews

Instructor Uses

We interviewed six faculty members from a range of disciplines (Chemistry, Public Health, Pharmacy, Atmospheric Sciences, Economics, and Molecular Medicine). Their uses of Tegrity included:

- **Academic continuity:** Three of the instructors we interviewed used Tegrity for academic continuity. They recorded content from their homes or offices to make up for classes cancelled due to weather and/or medical issues.
- **Traditional lecture capture:** Three instructors recorded content live, from their classrooms, utilizing either equipment installed in the classrooms or their own laptops.
- **Distance learning:** One instructor also made recordings of in-class lectures available for remote students.

What Worked

- Instructors found Tegrity easy to use—from launching the recorder to uploading and organizing content.
- Overall, instructors were able to get started with little to no support. One observed that a 30-minute consultation from support staff was all he needed to feel comfortable using the tool throughout the quarter.
- Students told instructors that they valued the opportunity for closer review of content.
- Instructors appreciated the flexibility of not needing to be online while recording.
- One instructor recorded from a tablet, and liked being able to write notes on the tablet and capture them in the recording.
- One instructor observed that she preferred Tegrity to Adobe Connect, because the latter did not allow for wireless access.
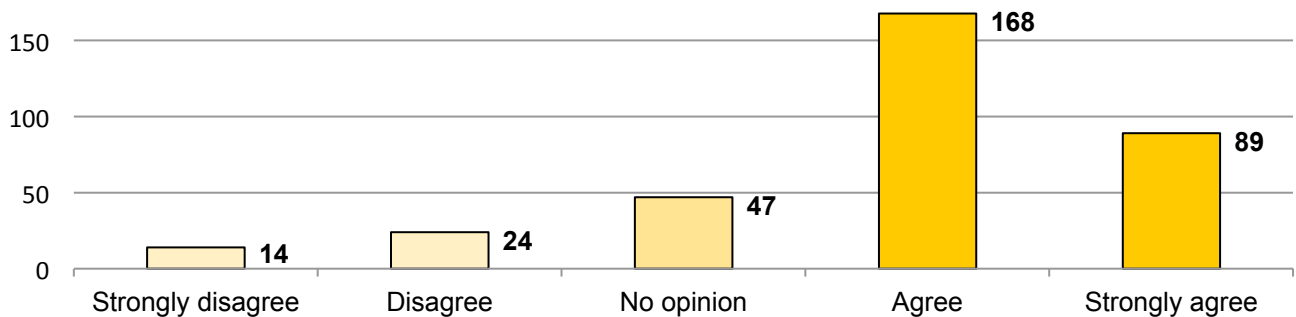
Challenges

- Several instructors would like to see Tegrity integrated with Catalyst and Canvas.
- Some instructors found the online help overwhelming.
- Two instructors encountered issues with sound, either low volume or excess background noise on some recordings.
- One instructor experienced compatibility issues with a video camera.
- Another instructor felt the analytics feature was not particularly user friendly.
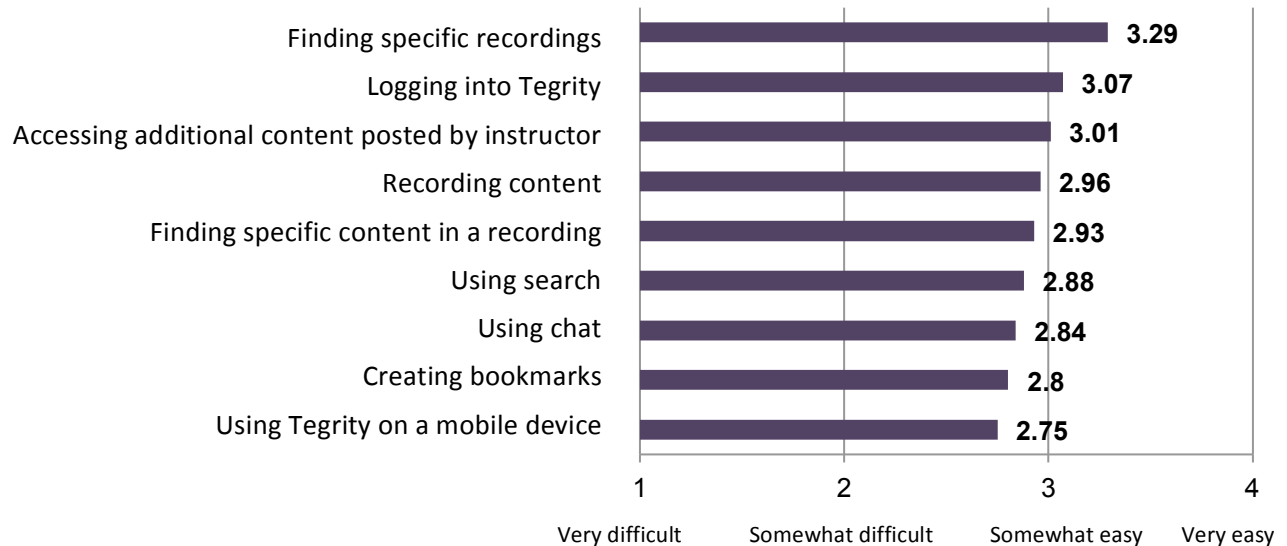
Potential Future Uses

- Several instructors expressed interested in pre-recording material—to serve as introductions to lab sessions, to provide additional examples to students, and/or to allow students to watch lectures in advance of class.
- Several instructors would like to see Tegrity installed in classrooms in Kane, as well as other large-lecture classrooms.
- An instructor who initially used Tegrity to make up for cancelled classes is now interested in recording content for all of her classes.
- One instructor plans to use Tegrity to replace content during an upcoming absence.
- Another instructor is considering using Tegrity to share content with a course at another university.

Usability of Tegrity

Tegrity was Easy to Use

Response	Count
Strongly disagree	14
Disagree	24
No opinion	47
Agree	168
Strongly agree	89

Usability of Specific Features

Feature	Rating
Finding specific recordings	3.29
Logging into Tegrity	3.07
Accessing additional content posted by instructor	3.01
Recording content	2.96
Finding specific content in a recording	2.93
Using search	2.88
Using chat	2.84
Creating bookmarks	2.8
Using Tegrity on a mobile device	2.75

Scale: 1 = Very difficult, 2 = Somewhat difficult, 3 = Somewhat easy, 4 = Very easy

Student Quotes

"Watching the recordings is easy to do, and I like it that it has become a hub of lecture recordings. I can also find my [course] lectures!"

"[I liked] that I could watch classes on my iPhone or iPad, that I could skip to different parts, and I could use it to study for tests."

"I liked how I could see my professor talking and the notes she was going over (in a Word document) at the same time. It felt like she was actually talking to me and it felt like I was there with her. Tegrity is much better than screencast in my opinion."
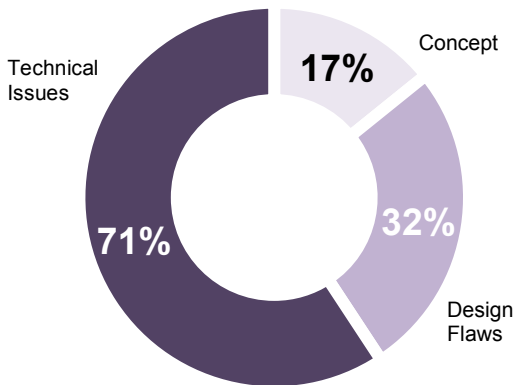
"I like how Tegrity not only records the audio of the room but displays the computer screen or PowerPoint presentation as well. Reviewing the Tegrity presentation extremely helped for my midterm exam."
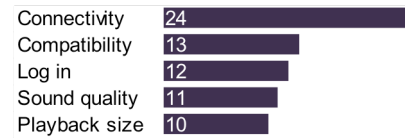
Tegrity Support Needs

Did you require support from the UW or Tegrity for any problems you experienced during the quarter?
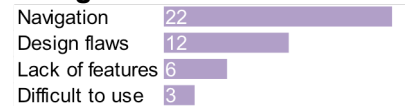

No: 314
Yes: 29
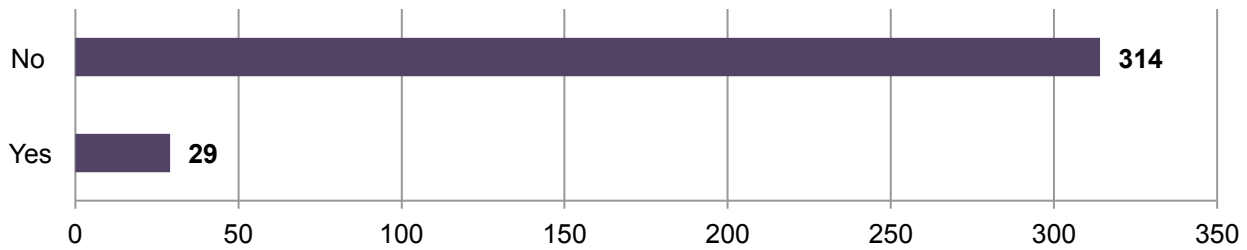
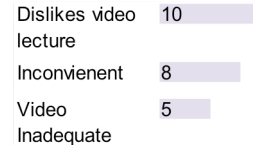## What did you like least about using Tegrity? (162 write-in responses)

Technical Issues 71%
Design Flaws 32%
Concept 17%

Technical Issues

Connectivity	24
Compatibility	13
Log in	12
Sound quality	11
Playback size	10

Design Flaws

Navigation	22
Design flaws	12
Lack of features	6
Difficult to use	3

Concept

Dislikes video lecture	10
Inconvienent	8
Video Inadequate	5

Student Quotes

"Require all faculty to use mics whose voice is automatically synced to the audio. Also, have a recorder at the back of the room so it can capture all the whiteboard."

"I wish Tegrity could have captured graphics our instructor created on an overhead projector because they were discussed but I couldn't see them."

"If I wanted to go back a couple seconds while watching a lecture, the entire video had to buffer all over again."

What's Next?

UW-IT is currently developing Tegrity Course Manager, which will support the use of Tegrity beyond official UW courses. Individuals will be able to create recordings in Tegrity for any purpose and share them with any group they choose. Assessment continues on Tegrity use in courses; the final report for the current academic year will be available this summer.