

Digital Initiatives

Office of Innovation
and Technology

Winter'16

Stanford
GRADUATE SCHOOL OF
EDUCATION

GSE IT Builds Classroom Observation App for Tracking Participation

GSE IT transforms the paper-and-pencil Collegial Observation Instrument developed within GSE's Program for Complex Instruction group into a web application for field data collection

Educational theories and empirical data suggest that in-class participation, interaction, and engagement yield desirable academic outcomes. But how do you systematically track these forms of active learning? GSE Emeritus Professor, Rachel Lotan uses the "Collegial Observation Instrument" for gauging student participation through observations of on-task and off-task activity and has shared a paper-and-pencil version of the tool in *Designing Groupwork: Strategies for the Heterogeneous Classroom, Third Edition*. The quantitative research instrument provides a snapshot of overall class engagement through recordings of how many students are:

- 1) talking and working together on the task,
- 2) manipulating materials and resources without talking,
- 3) reading or writing without talking,
- 4) looking or listening but are not actively participating in the conversation,
- 5) disengaged, or
- 6) waiting for the teacher.

This quarter, Lotan and graduate research assistant, Quentin Sedlacek sought the help of GSE IT to build the Collegial Observation Instrument into a web-based application that can be used on tablets and mobile phones. Custom software

was required in order to support data collection while accommodating the way the research team moves quickly and unobtrusively around the classroom during observations.

The Collegial Observation App needed the capability to override a 300-millisecond touch delay built into all iOS and Android internet browsers. This delay, implemented to support multi-touch pinch, zoom, and swipe mobile device functions, significantly slowed down researchers when tallying student behavior. GSE IT's application prevents the touch delay. The App's design addresses other research concerns including displaying observation codes in a clean and straightforward way that can be recognized at a glance and providing cues to observers about how many students in the classroom they have and have not yet accounted for. The Collegial Observation App is now being used in Lotan's Complex Instruction project with San Francisco Unified School District.

If you are interested in using this tool or working with GSE IT to develop a custom application in support of teaching or research objectives, email instructionalsupport@stanford.edu.

New Edtech in GSE Courses and Work

After attending the GSE IT TechLit on “PollEverywhere for Assessment and Peer Learning,” **Steve Olson** used the tool to gather anonymous feedback during a session he led with university leaders. He says, “it was a big success and allowed us us to move forward instead of getting bogged down with distracting details.” Take a look at the Gradients of Agreement image Steve embedded in the live poll to take the pulse of the room.

Thomas Dee is also using PollEverywhere in Causal Inference in Quantitative Educational and Social Science Research (EDUC255B/SOC257), and **Eric Bettinger** is using it in The Economics of Higher Education (EDUC347).

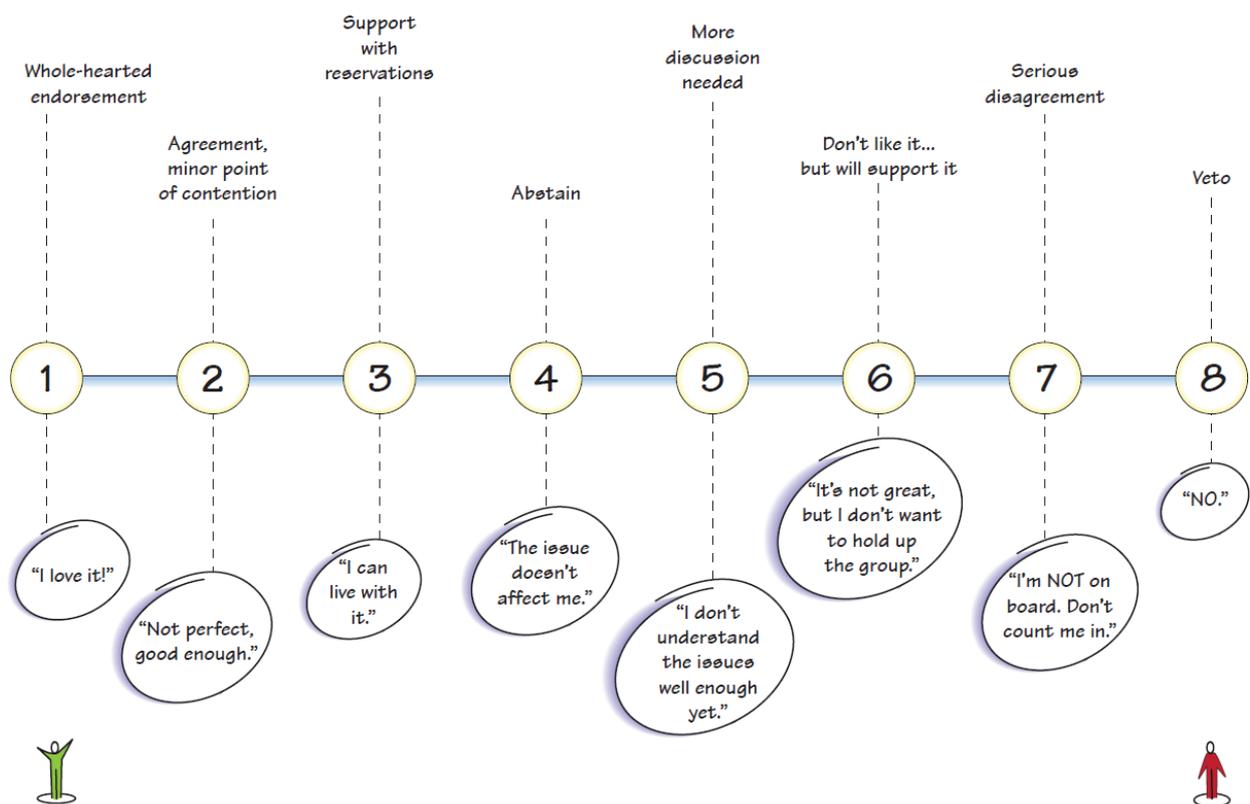
Stanford Domains is available at domains.stanford.edu and offers faculty and students their own web space and set of open source tools to develop course hubs and create digital

identities. In addition to Canvas, **Shelley Goldman** is using Stanford Domains as a public-facing course space for sharing creative activities and assignments with an external audience in Educating Young STEM Thinkers (EDUC239/ME139/ME231).

Polly Diffenbaugh has been experimenting with several content creation tools for modeling Next Generation Science Standards-aligned technology integration for STEP teacher candidates in Development of Scientific Reasoning and Knowledge (EDUC267F). This quarter, she deployed education apps Nearpod, Educreations, and Thinglink alongside traditional science lab materials in order to engage students in the practices of inquiry and discourse.

If you are interested in learning more about or using any of these tools, contact instructionalsupport@stanford.edu.

Gradients of Agreement



Promote Your Event

Add your event to the GSE calendar at ed.stanford.edu/events. To promote your event on GSE kiosks, please submit a request to Lyudmila Christie at lyudmila@stanford.edu.

TechLits

GSE IT can deliver presentations and trainings to your students or work group. Take a look at some of our past offerings and inquire at gse-it.stanford.edu/training.

Canvas Corner

Canvas' File Usage Rights Requirement

In order to support authors in their creation of works that are either protected by copyright or available via Creative Commons, Canvas is now prompting users to add usage rights tags to the files they upload. Students will be unable to view newly added files until instructors add one of the following usage rights tags:

- I hold the copyright
- I have obtained permission to use this file
- The material is under public domain
- The material is subject to fair use exception
- The material is licensed under Creative Commons

See definitions of the 5 usage rights tags at gocanvas.stanford.edu. Stanford's Copyright Reminder at library.stanford.edu/using/copyright-reminder includes common copyright situations and fairuse.stanford.edu includes an explanation of and guidance on the principle of fair use.

Canvas Office Hours for Faculty and Teaching Staff

The VPTL Canvas team are now offering office hours every Friday between 12pm and 3pm in Lathrop Library, Room 135 (located just past and to the left of the Tech Lounge Service Desk). No appointments are necessary and faculty and teaching staff across all levels of Canvas experience are welcome.

GSE-IT's Latest Offerings

GSE IT regularly designs and leads courses, presentations, and workshops aimed at building technology literacy for education, research, and productivity tools. Our Winter Quarter events included:

"Qualitative Data Analysis Software overview," workshop for Applied Research Methods in International and Comparative Education II, Associate Professor Christine Min Wotipka, February 2016.

"10 ways to use Google Drive for education," workshop for GSE TechLits, February 2016.

"Creating and distributing surveys in Qualtrics," guest lecture for Designing Surveys, Senior Lecturer Ann Porteus, February 2016.

"Qualitative Data Analysis using NVivo," workshop for GSE TechLits, February 2016.

"Using technology to support reasoning about scientific models," presentation with Carlos Seligo for the Vice Provost of Teaching and Learning's Demo Day, February 2016.



Canvas Course Setup Checklist

This checklist will help you ensure that your course is ready to be offered and accessed in Canvas. If you have any questions as you complete the tasks or for more detail, email instructionalsupport@stanford.edu.

- Import content (contact GSE IT to have materials copied or migrated into your course space)
- Add usage rights to all files
- Check each assignment's settings for submission type, point value, and due date
- Customize course navigation to hide unused menus (in Settings > Navigation)
- Add course assistants or guests not enrolled on AXESS
- Check "Student View" to see what your course space looks like to students (in Settings)
- Publish your course
- Adjust your personal notification settings (in Account > Notifications)
- Try the Canvas iOS or Android app for viewing course activity and posting announcements

"Introduction to developing and improving mobile apps with Fuse," workshop for GSE TechLits, February 2016.

"Going further with Fuse: Bringing our apps to life with animations," workshop for GSE TechLits, February 2016.

"Development of scientific reasoning and knowledge," course teaching assistant for Clinical Associate Polly Diffenbaugh, January-February 2016.

"Creating and curating digital content in Blendspace," workshop for GSE TechLits, March 2016.



10 ways to use Google Drive in education

Google Drive can do much more than just online word processing and document storage. In case you missed this quarter's TechLit on Google Drive, here are 10 ways to use the software in teaching and learning scenarios.

Sharing settings

- Choose how visible your files and folders are.
- Choose what others can do with these files and folders.
- Configure documents for student viewing and/or collaboration.

Revision history

- See all of the changes you and others have ever made to a file.
- Revert to earlier versions of a file.
- You must be the file "owner" or have editing permissions in order to see its revision history.
- Gain insight into students' writing process, examine individuals' contributions group work, track time spent on a file.



Google Slides

- Slide-based presentation tool (like Powerpoint and Keynote).
- Ensure that your formatting will be preserved across computers/devices when collaborating and presenting.
- Continue to make changes or additions to a presentation after sharing it with others.

Google Drawing

- Create, share, collaborate on, and edit drawings online.
- Facilitate whole-class or small-group brainstorming, image-based conversations, and creating models/prototypes.



Google Drive

Google Forms

- Create and distribute a survey or poll.
- Results are automatically backed up to an associated Google Spreadsheet.
- Create rubrics to support peer evaluation and student assessment.
- Administer student surveys and exit tickets.

Document markup

- Track changes (aka "suggest edits"), accept, and reject suggestions in a document.
- Add and respond to comments in a document. "Tag" (notify) collaborators about particular comments using the @ sign.
- Collaborate effectively and facilitate shared writing projects.

Insert link shortcut

- Search for, insert, and edit web links directly from Google Docs.
- Increase efficiency and save time for lesson planning or providing feedback on student work!

Table of Contents and Bookmarks

- Automatically generate an index or table of contents.
- Add shortcuts to specific places within a document (e.g. for a table of contents, or when you want to jump from one part of a long document to another without scrolling).
- Add structure within a document for collaborative work, small-group activities, and jigsaws.

Speech Recognition Add-on

- Use audio to type in Google Docs.
- High level of accuracy in many different languages.
- Personalize commands for punctuation, capitalization, formatting, etc.
- Requires Google Chrome browser. Transcribe audio interview and online videos.

URL Shortener Add-on

- Shorten long URLs to make them easier to share.
- Share presentation slides or activity files without having to email participants.

