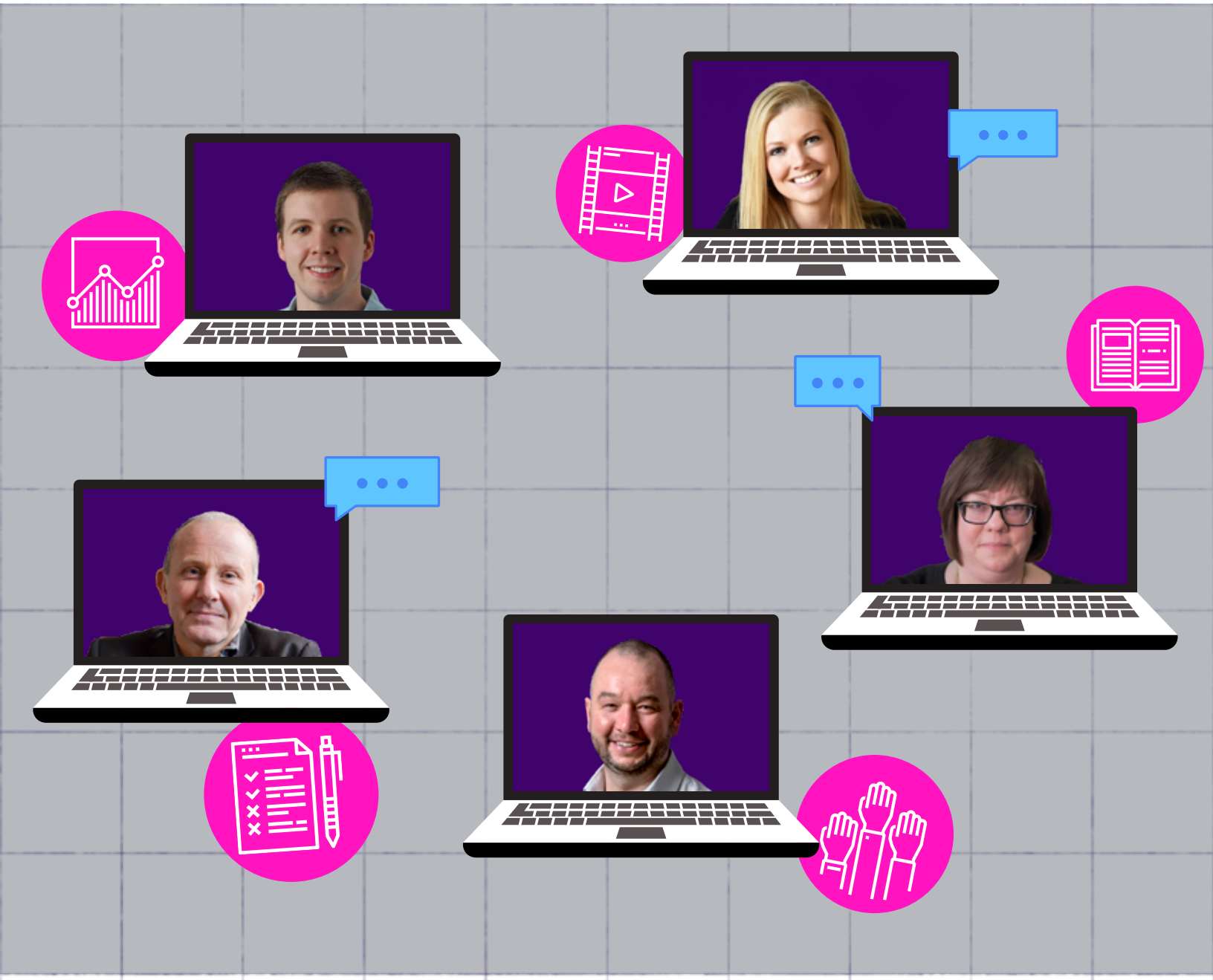
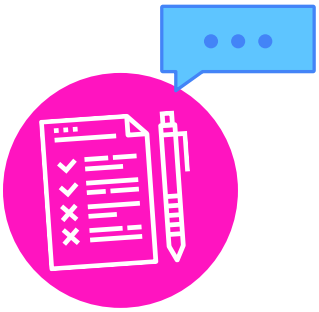
TEACH WITH INSIGHTS

5 Educators on the Most Effective Ways To Use Technology in 2021

TOP HAT





Technology use has become an inescapable part of the modern college course. This past year has forced educators to adopt a variety of online platforms, tools and channels to engage and assess students. No matter how you teach—online, blended or in person—technology use in the classroom has become essential.

The five educators below are no strangers to grappling with engagement and participation concerns in their courses. But by relying on technology to motivate their learners, they've been able to reap the benefits that come with a more connected, active and engaged classroom.

Here, we highlight their challenges, opportunities and outcomes—and provide steps for putting their instructional strategies to practice in your course.

WHO

Demian Hommel

Senior Instructor, Geography, Environmental Sciences and Marine Resource Management

WHERE

Oregon State University

COURSE

Geography

CLASS SIZES

200+

ADDITIONAL RESOURCES

Why Student Insight Is Essential In The Virtual Classroom

20 Formative Assessment Examples to Use In Your College Classroom

Free Guide: Reaching Today's Distracted Students

TOP HAT

TEACHING TIP

Use frequent polls and quizzes to maintain engagement

CHALLENGE

Professor Demian Hommel's students weren't arriving to class primed to learn. What's worse, they were distracted by their devices and were generally unengaged.

HOW TECHNOLOGY HELPED

Hommel used student devices to his advantage in class. He now encourages participation through frequent polls, facilitated every few minutes during lectures. With course material accessible from their smartphones, laptops or tablets, students are given a chance to reflect on what was just covered. Plus, real-time data gives Hommel an instant snapshot of learning gaps, allowing him to better explain any tricky topics or concepts. A virtual discussion board also stays open during his lectures, letting students capture their questions throughout class—and giving Hommel an easy way to know what's on their minds.

THE OUTCOME

7% Increase in student evaluation scores after adopting a classroom learning system

92% Of students said that the way Hommel used technology in the classroom improved their engagement in class

TRY IT IN YOUR COURSE

- **Limit the number of questions per session:** Using 4–8 questions for a 50–75 minute lecture gives students adequate time to comprehend and digest information
- **Vary your question style:** Use a variety of question types—such as matching, sorting, or multiple choice—to help students think critically about your material
- **Consider using polls as a segue to a collaborative activity:** Active learning exercises such as think-pair-share allow students to reflect on why they answered a poll a certain way—plus, it lets them learn from their classmates

TOOLS YOU CAN USE

iClicker
Kahoot!
Poll Everywhere
Top Hat

WHO

Sarah Sletten

Associate Professor of Biomedical Sciences

WHERE

University of North Dakota

COURSE

Microbiology

CLASS SIZES

150+

ADDITIONAL RESOURCES

Glossary: Flipped Classroom definition

How to Flip Your Classroom Online to Keep Students Engaged

How I Taught This: Flipping the Chemistry Classroom

Free Guide: How to Choose a Student Engagement System

TOP HAT

TEACHING TIP

Use a flipped classroom model and let students learn at their own pace

CHALLENGE

Professor Sarah Sletten found it tough to draw out participation in her class of over 150 students. After a semester, Sletten's course evaluation scores were also lower than she would have liked. When the COVID-19 pandemic shuttered campuses in spring 2020, she was faced with another challenge: giving students the flexibility to engage in self-paced learning, while maintaining collaborative, real-time connections.

HOW TECHNOLOGY HELPED

Sletten adopted a flipped classroom model, where students are able to complete course modules and self-paced quizzes in advance of live classes. Virtual in-class time is then spent discussing challenging concepts—giving students a chance to reflect on the material covered. Plenty of low-stakes polls run during class also give Sletten an indicator of areas in need of review. Lastly, video conferencing software has helped Sletten create a real-time classroom atmosphere for students to collaborate with one another.

THE OUTCOME

4.64/5 Average quality of education score from student evaluations

4.76/5 Average engagement score from student evaluations

TRY IT IN YOUR COURSE

- **Keep flipped lecture modules short:** Pre-class learning activities should be succinct enough to prime students' curiosity
- **Foster collaboration during live classes:** Let students learn from one another by incorporating breakout rooms in live lectures
- **Reduce barriers to equal access:** Provide multiple ways of engaging with course content outside of class (i.e. complement lecture recordings with transcripts)

TOOLS YOU CAN USE

Video conferencing: Zoom, Microsoft Teams, Google Meet

LMS: Blackboard, Canvas, D2L, Moodle

Classroom response tools: iClicker, Kahoot!, Poll Everywhere

All-in-One: Top Hat

WHO

Matt Numer

Associate Professor, Health Promotion

WHERE

Dalhousie University

COURSE

Human Sexuality

CLASS SIZES

450+

ADDITIONAL RESOURCES

4 Ways Tech Can Elevate Learning in the Virtual Classroom

16 Strategies to Make Online Teaching More Inclusive

Free Guide: Innovative and Unexpected Ways to Teach Your College Class

TOP HAT

TEACHING TIP

Use anonymous discussions to give every student a voice

CHALLENGE

Students in professor Matt Numer's human sexuality course weren't participating. They felt awkward speaking up in front of their peers—and that challenge was only magnified in a class of 450 learners.

Student participation makes up 20 percent of the final grade in Numer's class, so he needed a solution that would empower students to contribute.

HOW TECHNOLOGY HELPED

Numer redefined student participation using Top Hat. The app lets learners respond anonymously to discussion questions, making them feel comfortable participating in front of a large group.

Giving students a safe and supportive classroom to speak out in also improved their learning experience overall. Plus, students are able to engage on a deeper level in class, helping them critically think about the material covered and their learning gaps.

THE OUTCOME

9.2/10 Average student rating for Top Hat's ability to foster engagement in class

8.4/10 Average student rating for Top Hat's ability to promote critical thinking skills

TRY IT IN YOUR COURSE

- **Be upfront with your expectations:** Outline how many comments students need to submit during the semester and if they need to reply to their peers' responses
- **Reinforce student contributions:** Reply to responses in your discussion board, emphasizing the value and quality of students' comments
- **Offer synchronous and asynchronous modes of participation:** For students who aren't able to attend live classes, make sure there's still the option to anonymously contribute

TOOLS YOU CAN USE

Piazza
Poll Everywhere
Reddit
Top Hat

WHO

Katie Thompson-Laswell
Senior Instructor, Human Development and Family Science

WHERE

Kansas State University

COURSE

Human Development

CLASS SIZES

200+

ADDITIONAL RESOURCES

8 Reasons You Should Author Your Own Textbook

How a Digital Textbook Helped Earn This Prof a Perfect Course Evaluation

Free Guide: Digital Textbooks: How to Create Interactive Content

TOP HAT

TEACHING TIP

Use an interactive textbook to keep students engaged in and out of class

CHALLENGE

Students in Katie Thompson-Laswell's large human development class were disengaged. What's more, they were having trouble understanding how the course material could be applied beyond the classroom.

Thompson-Laswell realized that much of this stemmed from the lacklustre and expensive print textbook used in her course. It didn't bring the course material to life, nor did it give her an indicator of who was completing—and understanding—concepts outside of class.

HOW TECHNOLOGY HELPED

Thompson-Laswell authored her own interactive digital textbook, which provided a more tailored and engaging learning experience for students. She was able to embed multimedia and active learning exercises throughout chapters, making sure students were staying alert and engaged.

Custom pre-class assignments let students review the material at their own pace. These interactive homework assignments also primed students' curiosity before lectures.

THE OUTCOME

As > Fs After introducing her interactive textbook in class, fewer students were failing her course and A grades became more plentiful

TRY IT IN YOUR COURSE

- **Personalize your textbook with different question types:** Incorporate a mix of multiple choice, Likert-scale and long- and short-answer questions to encourage critical thinking
- **Repeat assessments to solidify learning:** Consider reusing some of the questions from lectures in your textbook, or vice-versa
- **Use insights from your textbook assessments to plan your lectures:** Spend the first portion of your lecture discussing and reviewing areas that proved challenging for students

TOOLS YOU CAN USE

Amazon Education Publishing
Pressbooks
Great River Learning
Top Hat

WHO

Joshua Osbourn

Associate Professor, Chemistry

WHERE

West Virginia University

COURSE

Chemistry

CLASS SIZES

150+

ADDITIONAL RESOURCES

The Ultimate Guide to Grading Student Work

How to Save 3 Hours of Grading Time

Free Guide: How to Choose the Best Assessment Tool for Your College Class

TOP HAT

TEACHING TIP

Use auto-graded assessments to eliminate grading time and give students instant feedback

CHALLENGE

Professor Joshua Osbourn's chemistry students weren't coming to class prepared. Implementing regular paper-based quizzes only created an excessive amount of grading time. He was in search of a solution that would keep students on track, while cutting back on the time required to grade up to 300 papers each week.

HOW TECHNOLOGY HELPED

After adopting a classroom response system, Osbourn was able to easily run both formative and summative assessments. He facilitates an informal quiz every few minutes in lectures to get real-time feedback. He then uses the live insights generated to help students adjust their study efforts—based on their comprehension—for his summative assessments.

At the end of each unit, Osbourn facilitates a low-stakes summative assessment to further evaluate students' knowledge. Not only are these tests auto-graded, but students get instant feedback on their performance—reducing anxiety and helping them refresh their understanding of topics immediately.

THE OUTCOME

2-3hrs Time saved grading each week after adopting a classroom response system

TRY IT IN YOUR COURSE

- **Mark, comment, record and reflect separately:** Even if you're using auto-graded assessments, set aside a block of time to comment on the quality of students' work
- **Balance assessment question types:** Include a mix of auto-graded questions such as multiple choice with long-form responses that encourage critical reflection
- **Have a grade rebuttal policy:** Not all students may agree with their grade—institute a 24-hour policy rule that asks students to wait a day before contacting you or your TA

TOOLS YOU CAN USE

Assignments
Turning Point
Turnitin
Top Hat

EVERYTHING YOU NEED TO TEACH YOUR COURSE

Use Top Hat to increase engagement and keep students motivated and connected

One platform, one less thing to manage

Take attendance, present slides, host discussions, give homework, assign interactive readings and run tests—all in one place. (Phew!)

Crank engagement up to 11

Make learning active with live discussions, polls and quizzes students can respond to on any device. Videos, GIFs and 3D images can easily be added to your course materials, so you'll always have plenty of tricks up your sleeve.

Assess your class early and often

Let instant feedback from polls, quizzes and assignments guide your teaching. Save time with question packs and auto-grading, and run secure in-class tests or remote proctored exams. Plus, get insights to support class and individual progress. Reaching out to struggling students is only a click away.

Learn more about the capabilities of the Top Hat platform.
Click here to get a personalized demonstration of Top Hat.

TOP HAT

We empower educators to engage students and unleash their potential.

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