In the Fall of 2023, the Academic Technologies' Classroom Support team conducted a survey to collect feedback regarding faculty use of technologies in centrally managed classrooms. Survey feedback is analyzed and used to gauge the effectiveness of our classroom technology, as well as the support of this technology in meeting instructional needs. This feedback plays a significant role in the assessment and planning for future classroom technology upgrades.

102 faculty responded to the survey, representing 86% of VCU Colleges/Schools.  
51% of VCU academic buildings contain centrally managed classrooms.  
There are 162 centrally managed classrooms: 110 MP Campus and 52 MCV Campus.
THE FOUNDATION...
Instructors were asked what size classroom they typically use.
Face-to-face (100%) and hybrid (in-person and remote attendees) modalities involve classroom technology. The style of teaching affects the technology requirements. We have defined these teaching styles as Lecture, Interactive, and Collaborative. Faculty were asked to select their modality and teaching style. Some submitted multiple answers which are included in these results.

102 Respondents, 188 Answers, 9 Modalities/Styles

- **Face-to-face collaborative** - In-person only discussions and activity-based interaction primarily student to student.
- **Face-to-face collaborative** - Where every student needs access to outlets 100% of the time.
- **Face-to-face Interactive** - In-person only where discussion and activity are between the instructor and students.
- **Face-to-face Lecture** - In-person only where material is presented from instructor to students with minimal interaction.
- **Hybrid** - Remote asynchronous content online and in-person, face-to-face sessions for group discussions and activities.
- **Hybrid collaborative** - In-person and remote attendees where discussion and activity based interaction primarily student to student.
- **Hybrid Interactive** - In-person and remote attendees where discussion and activity are between instructor and students.
- **Hybrid Lecture** - In-person and remote attendees where material is presented from instructor to students with minimal interaction.
- **Hyflex**
CLASSROOM TECHNOLOGY SUPPORT

Survey feedback regarding technical support and training for central classrooms.

- **Aware of Hotline phone numbers for assistance**: 80.4%
- **Have contacted our support team**: 66.7%

**Training type most beneficial to you:**
- One-on-one system demo/practice windows (30-60 minutes)
- One-on-one system demo/practice window (10-15 minutes) between class sessions
- Group Training Sessions (30-60 minutes)
- Online Webinar System training session (30-60 minutes)
- Nothing, None, n/a
- Written or online guide
- Asynchronous webinar, Youtube video

**Timeliness of resolution**
- 67.6% - very timely
- 5.9% - timely
- 2.9% - average
- 62.7% - did not answer

**Knowledgeable & courteous technician**
- 30.4% - very
- 5.9% - yes
- 1.0% - average
- 62.7% - did not answer

**How you contacted our support team:**
- Hotline
- Ticket
- Requested training
- School/Dept IT support
- Contacted staff who called hotline
- Went to the office
- No Response (on survey)
THE TECHNOLOGY...
PRESENTATION TECHNOLOGY USAGE

90% Podium Control Panel
49% Wired network connection
45% Podium Microphone
38% Dual Monitors
33% Document Camera
32% Auxiliary HDMI Input
26% Classroom Instructor Camera
16% Wireless Microphone
16% Annotation Monitor
14% Wireless Presentation
9% Auxiliary VGA input
PODIUM SOFTWARE USAGE

84% Canvas LMS
77% Microsoft Office
75% Google Drive, Slides, Docs
37% Zoom
26% Visualizer for document Camera
21% Kaltura Lecture Capture
17% Annotation Monitor
16% Top Hat
Instructors were asked to rate how well the existing system capabilities met their instructional needs during the Fall 2023 semester.

**PRESENTATION TECHNOLOGY USE**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Not Available</th>
<th>Did Not Use</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary VGA input</td>
<td>35%</td>
<td>47%</td>
<td>9%</td>
</tr>
<tr>
<td>Wireless presentation</td>
<td>47%</td>
<td>39%</td>
<td>14%</td>
</tr>
<tr>
<td>Annotation monitor</td>
<td>37%</td>
<td>44%</td>
<td>16%</td>
</tr>
<tr>
<td>Classroom audience camera</td>
<td>40%</td>
<td>37%</td>
<td>16%</td>
</tr>
<tr>
<td>Wireless microphone (check-out)</td>
<td>36%</td>
<td>43%</td>
<td>27%</td>
</tr>
<tr>
<td>Auxiliary HDMI input</td>
<td>31%</td>
<td>35%</td>
<td>32%</td>
</tr>
<tr>
<td>Document camera</td>
<td>24%</td>
<td>35%</td>
<td>33%</td>
</tr>
<tr>
<td>Podium microphone</td>
<td>22%</td>
<td>22%</td>
<td>45%</td>
</tr>
<tr>
<td>Podium control panel</td>
<td>20%</td>
<td>20%</td>
<td>31%</td>
</tr>
<tr>
<td>Wired network connection</td>
<td>6%</td>
<td>4%</td>
<td>49%</td>
</tr>
<tr>
<td>Classroom audience camera</td>
<td>42%</td>
<td>90%</td>
<td>21%</td>
</tr>
</tbody>
</table>
Hybrid courses allow for lecture, interactive or collaborative instructional style while having students attend remotely as well as in person. We currently have 4 levels of Hybrid classrooms in our central classrooms. We are actively working to update our Basic Hybrid classrooms to our Standard Hybrid capability listed below, with the ultimate goal of having all spaces meet the Advanced Hybrid standards below.

**ADVANCED HYBRID**

*Cameras:* Two room cameras, instructor and student facing as well as a document camera are available. *Audio:* One podium microphone, ceiling microphone and (in lecture halls) wireless microphone receivers.

**STANDARD HYBRID**

*Cameras:* An instructor camera located in the back of the room capturing the front of the room. Also a document camera is available. *Audio:* One podium microphone and ceiling microphone.

**BASIC HYBRID**

*Camera:* One document camera for content and/or classroom view, with setting options in Zoom. *Audio:* One podium microphone available.

**PODIUM MIC ONLY HYBRID**

*Audio:* One Podium microphone only. No built-in video option. (very few, very small spaces.)
Instructors were asked to rate how well these specific resources met their instructional needs in a hybrid teaching environment. Of 102 survey participants, 8 provided responses about their hybrid technology usage.

**HYBRID TECHNOLOGY USAGE**

8 Respondents, 9 Technologies Rated

<table>
<thead>
<tr>
<th>Resource</th>
<th>Very Well</th>
<th>Well</th>
<th>Poorly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Podium Microphone, For Zoom Or Capture Software</td>
<td>62.5%</td>
<td>25.0%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Student Ceiling Mic</td>
<td>50.0%</td>
<td>12.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Instructor Camera</td>
<td>37.5%</td>
<td>12.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Student Camera</td>
<td>25.0%</td>
<td>12.5%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Document Camera - show for whiteboard</td>
<td>12.5%</td>
<td>25.0%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Wireless Microphone - checked out</td>
<td>12.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Document Camera - for whiteboard</td>
<td>12.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Document Camera - content for whiteboard</td>
<td>12.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Document Camera - content for whiteboard</td>
<td>12.5%</td>
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</tr>
<tr>
<td>Document Camera - show for whiteboard</td>
<td>12.5%</td>
<td></td>
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</tr>
</tbody>
</table>
Of 102 survey participants, 100 provided a response about presenting to hybrid classes.

- 88.2% use the podium computer screen and Zoom
- 6.9% use a laptop screen, as a guest presenter
- 2.9% use the document camera for live, written content and/or physical artifacts

Of 102 survey participants, 8 provided a response about recording hybrid classes.

- 37.5% occasionally record
- 37.5% do not record at all
- 25% record every class

Of 102 survey participants, 8 provided a response about the method used for recording hybrid classes.

- 62.5% use Zoom session recording
- None use Kaltura Classroom
- 37.5% do not record at all
THE FUTURE...
Instructors were asked which resources they expect to use for future classroom sessions.

102 Respondents, 156 Answers, 7 Categories

- Zoom - Guest Lecturers only (3.8%)
- Zoom - Remote and in-person attendance/class participation (12.2%)
- Zoom - Lecture Capture (26.9%)
- None or N/A (15.4%)
- Kaltura Classroom - Lecture Capture (13.5%)
- Zoom - Instructor in classroom, all students attend remotely (22.4%)
- Other (5.8%)
Wireless Presentation in classrooms would allow users to wirelessly connect their portable devices to display content on the classroom presentation display. Wireless presentation systems have been deployed in several classrooms and lecture halls on both campuses, though not campus wide.

Instructors were asked if they would be interested in using Wireless Presentation for their courses; and if so, how would they use it.

- 2% have previously used Wireless Presentation.
  - Rated the experience:
    - 8.8% very positive
    - 11.8% somewhat positive
- 23.6% very interested
- 16.1% slightly interested
- 14.9% interested
- 11.8% very interested

**How Wireless Presentation Would Be Used**

- Only present files (photos, documents, pdfs) from my mobile device.
- Show specific apps on my tablet, not just files like photos, documents and pdfs. (screen mirroring)
- Control my PowerPoint (or equivalent) presentation away from the podium.
- Annotate over my PowerPoint (or equivalent) presentation.
- Use my tablet as a wireless notepad to project written notes, equations, or examples to the class.

2% have previously used rated the experience:
- 8.8% very positive
- 11.8% somewhat positive
POTENTIAL CLASSROOM TECHNOLOGY NEEDS

The following technologies/tools are available in few spaces, but what if they were available in all central classrooms?

102 survey participants lend some insight to what classroom technologies may be needed in the future. They rated how often they would use these technologies if they were available.

- ✔️ would use daily
- ✔️ would use some
- ✗ would not use
POTENTIAL CLASSROOM TECHNOLOGY NEEDS

Continued from previous slide.

- **Audience Microphone**
  - Ceiling
    - **✓** would use daily: 29.4%
    - **✓** would use some: 24.5%
    - **✗** would not use: 46.1%

- **Instructor Microphone**
  - Podium integrated
    - **✓** would use daily: 36.3%
    - **✓** would use some: 25.5%
    - **✗** would not use: 38.2%

- **Wireless Presentation**
  - Capability
    - **✓** would use daily: 29.4%
    - **✓** would use some: 24.5%
    - **✗** would not use: 46.1%

- **Wireless Microphone**
  - For checkout
    - **✓** would use daily: 22.5%
    - **✓** would use some: 18.6%
    - **✗** would not use: 58.8%
Need to be able to schedule recordings via Kaltura

Better projection, better sound/speakers to output audio during guest zooms Blu-ray and DVD - film courses cannot rely on streaming alone

Functioning speaker system to use with wireless microphone.

HDMI connections

All classrooms should have two monitors.

All monitors should be touch screen.

The ability to write on my slides using a stylus to write on the monitor.

USB-C connectors

We need FM "loop" systems in place for people who use assistive listening devices. We REALLY need the ability to provide HyFlex

If students, from their laptops, could interact with the instructor’s whiteboard (on the instructor’s laptop) it would be great.

Podium computers should have the ability to do digital inking, or the projection should not cover the whiteboard. As is, except in few classrooms, it is very hard to actively teach mathematics when the projection covers almost all the whiteboard.

Students often have charging issues, especially as we work with documents during most of class. Any increased access to opportunities for students to charge their devices would be great; most of my classes have about 2-3 unreliable wall outlets and the very reliable outlet in the tech podium, and often all the functional outlets are in use in any given class.
STAY TUNED...