Tools for engaging students in the classroom

A practical digest of use cases and tool recommendations

for Faculty wishing to enhance student participation in their classrooms

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Background & Purpose

Goal | The main goal of this document is to provide Nova Faculty with a practical digest of tools meant to enhance student participation in their classrooms.

Organization | It's organized by use cases, or types of tasks and activities, one would use an engagement tool for. This makes it easier for the document to be consulted – all one needs to do is identify the use case most relevant to them (*i.e.* What do I want to do in my classroom in terms of engagement?), search the index for it, navigate to the corresponding document section, and there one will find a couple of recommended tools (the ones that'll perform that use case the best) as well as examples of associated teaching goals.

Applicability | It's not meant, therefore, to be an exhaustive list of use cases and/or engagement tools. Rather, it lists the most commonly found use cases for engagement tools in a business higher education setting, providing recommendations from an endless array of potential tools available in the market.

Format | Tools were recommended on their ability to serve a use case in the context of synchronous classes (face-to-face, online and hybrid). Recommendations of tools serving asynchronous use cases can be found in the same SharePoint this document was released in.

Why care about engagement? | Student engagement has consistently been proven to lead to increased interest and investment of time & effort on behalf of students, which in turn leads to favourable outcomes such as increased performance, persistence and satisfaction (Trowler & Schreiber, 2020).

" Tell me and I forget. Teach me and I remember. Involve me and I learn. "   (Benjamin Franklin)

Use case A – **Word Cloud**

Use case explained: Word Clouds (also known as word collages, or tag clouds) are visual representations of words that give greater prominence to words that appear more frequently. This type of visualization can help presenters quickly collect data from their audience, highlight the most common answers and interpret the associated results for everyone in the classroom, real-time.
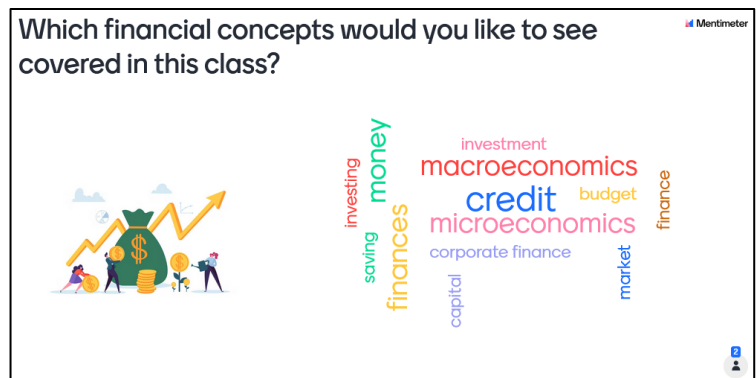
Teachings Goals:

Application Examples:

TG1 | Enhance an introductory session by identifying students' expectations for the class or a content wish list to cover.

TG2 | Foster interpersonal relationships between participants and with Faculty (*e.g.* ice-breakers) through moments that drive socialization.

TG3 | Assess the participants' current knowledge about a new topic (*e.g.* using a brainstorming format).

Introduce a new theme/topic/content piece using audience keywords.

Recommended tool:	**Alternative tool:**

Mentimeter
(https://www.mentimeter.com/)

Mentimeter is a presentation tool that uses quizzes, polls, and word clouds to help engage students better in Education. This tool allows teachers to interact with the students in real time, take a poll, present a quiz.

Poll Everywhere
(https://www.polleverywhere.com/)

Poll Everywhere is an online service that allows teachers to ask their students a question. The students answer the question using their mobile phones or web browsers. Both the question and the students' responses are displayed live in Keynote, PowerPoint or on the web.

Main limitations of free version

1. Only 2 slides/questions per presentation;
2. No Excel export.

Main limitations of free version

1. 40 max audience size;
2. No Excel export.

Use case B – **Quiz**

QUIZ **Use case explained:** Quizzes refer to short tests of knowledge, typically including questions in easy-to-answer formats such as multiple choice, fill in the blanks or true or false. They can be graded/formal or ungraded/informal.

Teachings Goals:

Application Examples:

TG1 | Validate real-time knowledge understanding and retention by students or participants. Enables the assessment of what they understood and what questions may yet linger.

TG2 | Revisit content already taught, obtain feedback on participant learning progress and what's required to reinforce or clarify.

TG3 | Perform formative and summative evaluations.

<table>
<tr><td colspan="2">👤 Student 5135</td><td colspan="4" align="right">1 of 1 ‹ › ✕</td></tr>
<tr><td>○ **100%** correct</td><td>Rank</td><td>📊 1 of 1</td><td colspan="2">Questions answered</td><td>❓ 4 of 4</td></tr>
<tr><td></td><td>Final score</td><td>🏅 3 687</td><td></td><td></td><td></td></tr>
<tr><td>Questions ⌄</td><td>Type ⌄</td><td>Answered ⌄</td><td>Correct/incorrect ⌄</td><td>Time ⌄</td><td>Points ⌄</td></tr>
<tr><td>1 In Active Learning how are...</td><td>Quiz</td><td>◆ Students</td><td>✓ Correct</td><td>5s</td><td>916</td></tr>
<tr><td>2 Gamification is...</td><td>Quiz</td><td>▲ The use of game elements and gam...</td><td>✓ Correct</td><td>9.1s</td><td>848</td></tr>
<tr><td>3 Was this activity an exam...</td><td>Quiz</td><td>▲ Yes!</td><td>✓ Correct</td><td>3.1s</td><td>948</td></tr>
<tr><td>4 How do you feel about Ka...</td><td>Quiz</td><td>▲ 🧑</td><td>✓ Correct</td><td>3s</td><td>975</td></tr>
</table>

Recommended tool:
Kahoot!
(https://kahoot.com/)

Kahoot! is a game-based learning platform that makes it easy to create, share and play learning games or trivia quizzes in minutes. Unleash the fun in classrooms, offices and living rooms!

Alternative tool:
Mentimeter
(https://www.mentimeter.com/)

Mentimeter is a presentation tool that uses quizzes, polls, and word clouds to help engage students better in Education. This tool allows teachers to interact with the students in real time, take a poll, present a quiz.

Main limitations of free version
1. 10 max audience size;
2. Only quiz questions and true or false questions are available to use.

Main limitations of free version
1. Only 2 slides/questions per presentation;
2. No Excel export.

Use case C – **Polls**

📊 **Use case explained:** In the context of education, polls are short studies in which students or participants are asked their opinions about a subject or person, and all opinions are subsequently consolidated into results. The main difference between a Quiz and a Poll is that a Quiz entails answers that are either correct or incorrect, whereas a Poll simply delivers the distribution of the answers.
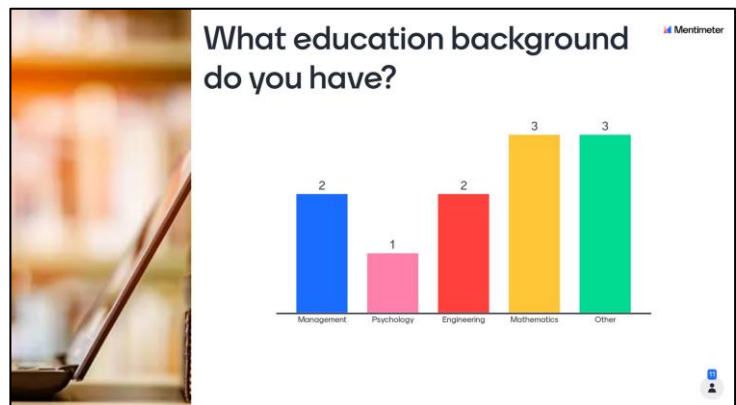
🎓 **Teachings Goals:**

🔮 **Application Examples:**

TG1 | Identify participant characteristics or features, through their participation in a real-time poll.

TG2 | Maximize participants' active involvement and participation in classes, through automated collection of their opinions or insights.

TG3 | Deliver classes in a more interactive and dynamic fashion, while keeping the attention and interest of participants by asking for their feedback and inputs.

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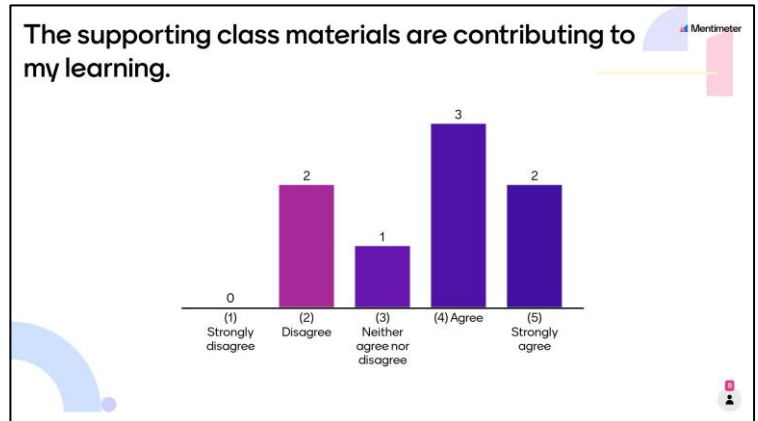
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</div>

Mentimeter is a presentation tool that uses quizzes, polls, and word clouds to help engage students better in Education. This tool allows teachers to interact with the students in real time, take a poll, present a quiz.

<div align="center">

Alternative tool:
sli.do
(https://www.slido.com)

</div>

Sli.do is an online interactive polling and questions platform that allows teachers to directly interact with a class, both in the room and online. From multiple choice questions to word clouds, there are many options to allow for the collection of individual opinions on a class-wide scale.

Main limitations of free version
1. Only 2 slides/questions per presentation;
2. No Excel export.

Main limitations of free version
1. No Excel or PDF export;
2. 100 max participants per event;
3. 3 polls per event.

Use case D – **Q&A**

Use case explained: Q&A is a period of time or an occasion when someone (*e.g.* an invited guest) answers questions that are asked from the audience. The Faculty's role is typically to moderate these moments, selecting the question(s) to be asked depending on the participants' inputs.

Teachings Goals:

Application Examples:

TG1 | Maximize the likelihood of appropriate knowledge retention, while ensuring no questions are left outstanding.

Share any lingering questions you may have on the topic we just covered.

Top

| 1 | What are the risks of the investment?
| 1 | What to do when we want to invest large amounts of money?
Hide | 1 | I wonder if you could summarise the last theme?
Hide | 1 | What can we do to be more successful in this area?

TG2 | Foster a dynamic and active synchronous session (physical, online or hybrid), promoting the interest and motivation of participants in the learning content.

Which topic(s) would you like the guest speaker to cover in the remaining 15 mins?

Top

| 3 | Can you speak a little bit more about how you created your own company?
Hide | 2 | Can you share a bit about your experience as an investor?
Hide | 1 | I would like to know more about business methods.
Hide | 1 | What other investments do you have already? Can you share with us?

Recommended tool:
📊 Poll Everywhere
(https://www.polleverywhere.com/)

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Main limitations of free version
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2. No Excel export.

Use case E – **Gamification**

Use case explained: Gamification is the use of game design elements, like Points, Badges, Levels and Leaderboards, in non-game contexts such as teaching. Faculty can gamify their classes through the use of any of these gamification elements. Adding elements of competition and progress to classes will further motivate and engage the participants.

Teachings Goals:

Application Examples:

TG1 | Foster participants' engagement in the learning process through the use of gamification element(s), *e.g.* a quiz where students compete for points, added up in a leaderboard at the end.

TG2 | Stimulate participant performance by employing challenges, missions and targets to reach, for instance through the use of peer competition.

Recommended tool:
Kahoot!
(https://kahoot.com/)

Kahoot! is a game-based learning platform that makes it easy to create, share and play learning games or trivia quizzes in minutes. Unleash the fun in classrooms, offices and living rooms!

Main limitations of free version
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2. Only quiz questions and true or false questions are available to use.

Alternative tool:
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Mentimeter is a presentation tool that uses quizzes, polls, and word clouds to help engage students better in Education. This tool allows teachers to interact with the students in real time, take a poll, present a quiz.

Main limitations of free version
1. Only 2 slides/questions per presentation;
2. No Excel export.

Use case F – **Collaboration Board**

Use case explained: Collaboration boards are interactive discussion boards that allow students and teachers to post text, images and other media elements to a shared class board. It's a great way to spark class discussion, brainstorm, or check in on how students are feeling.
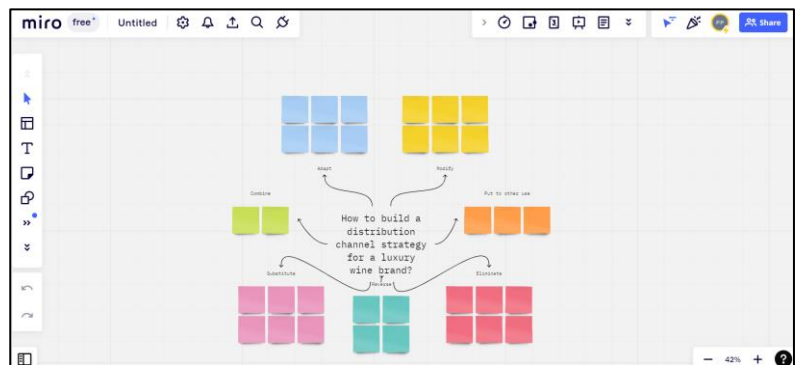
Teachings Goals: **Application Examples:**

TG1 | Foster collaborative work via every participant sharing their contributions, points of view and inputs on a particular challenge or topic.

TG2 | Establish a structured board to gather all inputs related to, *e.g.* a project in the context of project-based learning.
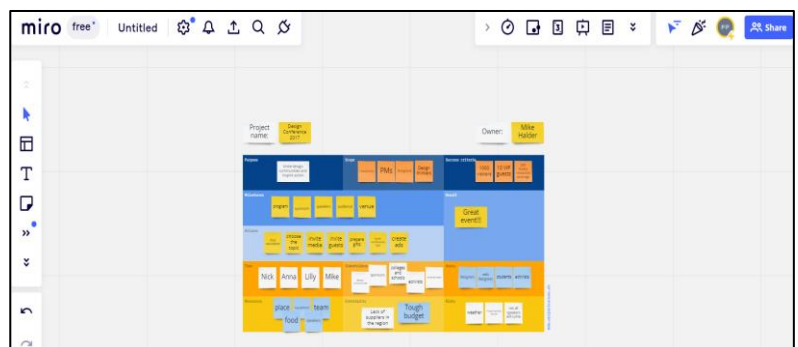
TG3 | Carry out brainstorming activities or build conceptual maps with participants.
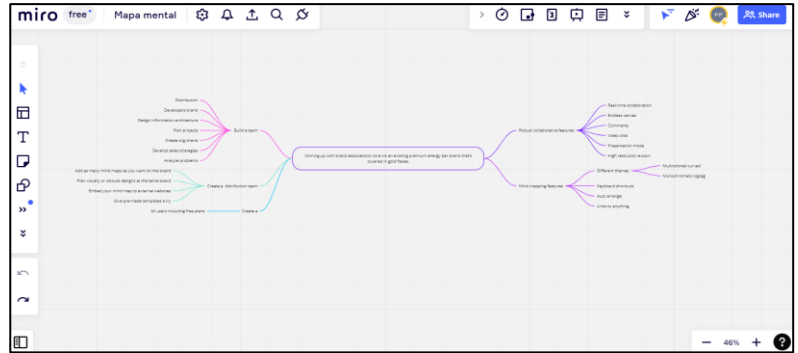
Recommended tool:
miro
(https://miro.com)

Miro is an online collaborative whiteboard platform that makes it easy to collaborate with others. Miro allows you to create notes and designs, move things around, and communicate through embedded video calls or online chats.

Alternative tool:
:Padlet
(https://padlet.com/)

Padlet is an online virtual "bulletin" board, where students and teachers can collaborate, reflect, share links and pictures, in a secure location. Padlet allows users to create a hidden wall with a custom URL. Padlet creators can also moderate posts, remove posts, and manage their board 24/7.

Main limitations of free version
1. No Excel or PDF export;
2. 100 max participants per event;
3. 3 polls per event Up to 3 active boards.

Main limitations of free version
1. Up to 3 padlets;
2. 20 MB max. upload.

Use case G – **Joint Note-Taking (365)**

Use case explained: Joint note-taking is the practice of writing down key points of information in a collaborative way, for instance with students or participants working together to deliver a single notes document. Notes taken on class lectures or discussions may serve as study aids and helps to process information and make connections between ideas, enabling higher knowledge retention.
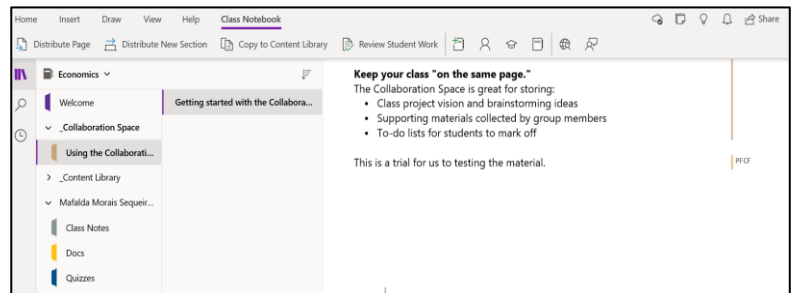
Teachings Goals:

Application Examples:

TG1 | Promote the use of joint note-taking in a given class, encouraging students or participants to build a single document with all notes, remarks, comments or questions gathered.

Recommended tool:
Microsoft OneNote
(Included in the tool pack Msft 365)

Alternative tool:
Evernote
(https://evernote.com/)

Microsoft OneNote is a note-taking and information management application that is part of the Microsoft Office 365 suite of applications. Users can store text and images in free-form documents that can be kept private or shared with others. Multiple notebooks can be created to represent different topics or projects, such as having two notebooks to separate work and personal notes.

Evernote is a note-taking app that offers everything you need to keep your life organized. You can take notes, write lists, store content, and organize everything in one place. The concept behind the app is that you can save everything you've collected and then use tags to find it quickly whenever you need them.

Main limitations of free version
1. Select premium features can only be accessed with a Msft 365 account.

Main limitations of free version
1. Access your notes on up to 2 devices;
2. Max. note size 25 MB.

Use case vs. engagement tool matrix

Use Cases/Tools	Word Cloud	Quiz	Polls	Q&A	Gamification	Collaboration Board	Joint Note-Taking
Mentimeter	✓	✓	✓	✓	✓		
Kahoot!	✓	✓	✓	✓	✓		
Poll Everywhere	✓	✓	✓	✓	✓		
sli.do	✓	✓	✓	✓	✓		
miro						✓	✓
:Padlet						✓	
Microsoft OneNote							✓
Evernote							✓

Caption:
Recommended
Alternative recommendation
Others

Note: Even tough recommendations were provided on which tool(s) to use for each use case, there are others that perform similar functions – the purpose of this table is to provide such alternatives.