

The Myths and Realities of PowerPoint: Perspectives of Students, Teachers and Professionals - Coding Manual

Adapttech Research Network

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Three focus groups (students / teachers /professionals) each consisting of 7 to 8 participants answered the two questions below.

Questions Student Focus Group

1. What are some problems with the way some of your teachers use PowerPoint or other presentation software (e.g., Word, Prezi, Excel, Google Docs)?
2. What is really helpful about the way some of your teachers use PowerPoint or other presentation software?

Questions Teacher Focus Group

1. What are some of the difficulties you have experienced in using PowerPoint or other presentation software (Word, Prezi, Excel, Google Docs) to help your students learn?
2. In what way does your use of PowerPoint or other presentation software help your students learn?

Questions Professional Focus Group

1. What are some problems with the way some teachers use PowerPoint or other presentation software (Word, Prezi, Excel, Google Docs)?
2. What is really helpful about the way some teachers use PowerPoint or other presentation software?

Coding categories were created inductively, based on the data from the focus group transcripts. Each category had both positive and negative poles of expression.

- Content on PowerPoint slides
- Posting online - uploading
- Pedagogical use of PowerPoint
- Technology
- Note-taking
- Other

Coders were trained to a minimum of 70% reliability with an overall reliability after training of 91%.

Coding Rules

N.B. The participant's responses may be broken down into more than one comment and then each comment must be coded.

- 1) If posting online or uploading is mentioned in a comment, it should be coded in category #2 (Posting Online - Uploading)
- 2) When the teacher's knowledge of how to use PowerPoint is mentioned in a comment, it should be coded in category #3 (Pedagogical Use of PowerPoint)
- 3) If a comment mentions note-taking, it should be coded in category #5 (Note-Taking).
- 4) If a comment does not have a positive or negative direction then: Code as 'positive' for comments that correspond with question 2 and code as 'negative' for comments that correspond with question 1
- 5) When technology is not mentioned in a comment, it should be coded in category #6 (Other)

| Positive | Category Name | Category # | Negative |
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| <p>Teachers PowerPoint is effective for presenting visual materials, such as videos and images; PowerPoint is effective for presenting diagrams; The teacher embeds short animations (GIFs) in PowerPoint; The calendar is shown on the PowerPoint slides; The content on the slides include questions; The content on the slides also includes answers; The content on the slides include information from the discussions</p> <p>Professionals When hyper-text / web links to external resources are inserted into the PowerPoint; When keywords are presented on slides; When alt-text is used for images, tables and graphs; When teachers use headings and sub-headings in PowerPoint; The use of visuals on PowerPoint slides can be useful</p> <p>Students Diagrams, charts and graphs on the slides are helpful; Short sentences presented on slides, this is more visual; When definitions are presented on slides; The use of videos in PowerPoint; Helpful when teachers provide answers on PowerPoint slides; Only keywords being presented on slides; When images are used on slides</p> | <p>Content on PowerPoint slides</p> | <p>1</p> | <p>Teachers Often the PowerPoints for have too many slides; Some slides have too much information on them;</p> <p>Professionals If slides have too little information on them this can be problematic for second language learners, students with learning disabilities and students with learning differences; Problems with vocabulary / choices of words used on PowerPoint slides; PowerPoint slides with too much text are distracting; PowerPoint slides with only visuals, such as images, and no text</p> <p>Students When there is too much information presented on the PowerPoint slides; When teachers present PowerPoint slides with only images on them, with no text; When only keywords are presented on slides; Not helpful when only questions are posted on slides without the answers; When teachers put vague definitions on PowerPoint slides</p> |
| <p>Teachers The teacher posts their PowerPoints online; The PowerPoint is posted online after class most of the time; The teacher has posted the PowerPoint online before class when the students have asked; The PowerPoints posted online must be completed in class;</p> <p>Professionals Some teachers use Office Mix to create a video of themselves presenting their PowerPoint live, which is posted online and students watch the video before class; If PowerPoints are posted online before class</p> <p>Students When PowerPoints are easily accessible through the course management system on any device; PowerPoints being posted before class allows students to prepare for the material that will be covered in class and prepare questions to ask during class; When the PowerPoints are uploaded online, so that students can have access to the PowerPoints if they miss class; Upload the PowerPoint before class so students can use the PowerPoint to prepare for the class</p> | <p>Posting online - uploading</p> | <p>2</p> | <p>Teachers The teacher uses a color-coding system because they do not post their PowerPoints online; The teacher does not post the PowerPoint / notes online</p> <p>Professionals Some teachers save the PowerPoint as PDFs and then post the PDF online (NOT the PowerPoint format itself) because they worry that students will modify their original PowerPoint; The professional has encountered a lot of push back with regards to faculty posting their PowerPoints online; PowerPoints are often unavailable to students (they are not posted online); Images cannot help students create links with course material if the PowerPoints are only posted online after class</p> <p>Students Too much information presented on slides is especially problematic if the PowerPoint is not posted online after class; Teachers who do not post their PowerPoints online</p> |

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| <p>Teachers The teacher systematically decodes the image on the PowerPoint slide with the students in class; Short animations in PowerPoint are especially good for demonstrating technical concepts; PowerPoint helps the teacher structure the class; The teacher uses the PowerPoint to go over key terms that students will be tested on for the module; PowerPoint is used to introduce concepts that will be discussed in class; PowerPoint is effective when used for class exercises; PowerPoint is effective when used in a question and answer key format; Teacher uses images and videos in PowerPoint to facilitate discussions in class; The quiz at the end of the PowerPoint helps keep students focused in class</p> <p>Professionals PowerPoint provides a structure to the lecture; PowerPoint outlines the purpose of the lecture; PowerPoint helps students figure out what they need to study; When teachers make a connection between what is being presented on the PowerPoint and course material covered in previous lectures (making broader connections between course content); When PowerPoint is used to structure a lecture, it can provide a valuable learning structure</p> <p>Students Some teachers have mastered the use of PowerPoint; They do not just present the content in point form and lecture; They use PowerPoint in an interactive way to make class more interesting; The teacher writes the answers to questions in PowerPoint with the students live during class, while also discussing the answers with the students</p> | <p>Pedagogical use of PowerPoint</p> | <p>3</p> | <p>Teachers PowerPoint is not helpful for facilitating discussions in class; The teacher finds that they are dependent on PowerPoint; The teacher uses Word as a presentation software and scrolls down through the document during class because they do not want the content presented on the screen to overshadow what they are saying in class; The teacher is not sure if it is possible to achieve a complete learning process using only PowerPoint</p> <p>Professionals Professors do not know how to use PowerPoint effectively; Teachers are not aware of how to present effective PowerPoints in class; The teacher's expectation of what they want their students to do with their PowerPoints is not communicated to the students; Teachers want to be better prepared with PowerPoint, but are not sure how to do this; Many teachers do not know all the potential ways in which PowerPoint can be used in class; Teachers want to create accessible PowerPoints, but they do not know how to do this</p> <p>Students When teachers use PowerPoints as a crutch and read the slides word for word in class; Slides that have only images and no text, the teacher is not teaching anything specific on these slides, the material being taught is ambiguous and can be interpreted differently by each student, there is also no correct answer provided by the teacher; When PowerPoint is not used in an interactive way (e.g. no class activities or discussions); When teachers only cover the content presented on slides vaguely</p> |
| <p>Teacher Some teachers have not really experienced too many technology-related problems in the classroom</p> | <p>Technology</p> | <p>4</p> | <p>Teacher When technology fails, the momentum of the lecture is interrupted; PowerPoint is not a flexible software, teachers cannot decide to hide or not present certain slides to different sections of a class; Major difficulty occurs when the projector does not work and the teacher has to wait for tech support to come fix the problem; What the teacher finds most frustrating is not having confidence that the computer or projector in the classroom will work; The teacher needs to avoid compatibility issues with the versions of PowerPoint that students may be using; Sometimes videos embedded in PowerPoint do not load in class</p> <p>Professionals Some teachers cancel class if they cannot get the PowerPoint to work; Compatibility problems arise when teachers use older versions and templates of PowerPoint, while students use newer versions and templates</p> |

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| <p>Professionals If PowerPoints are posted online before class students can use them to take notes during class</p> <p>Students When the teacher asks the students to print the PowerPoint before class, so that they do not have to write down everything that is presented on the slides, and the PowerPoint has blanks where students have to fill in keywords during class; When keywords are presented on slides students can focus on writing down what the teacher is saying in class</p> | <p>Note-taking</p> | <p>5</p> | <p>Teachers There is a discrepancy between the teacher's use of PowerPoint and the students' expectations with regards to the use of PowerPoint as a note-taking tool</p> <p>Professionals A PDF file that is posted online is harder to take notes with in class because it is harder to edit the document; "If teachers are not making it easier for students to take notes, then why are they using PowerPoint"; When teachers create PowerPoints they are focusing on material that they think is important for their lecture, the teachers do not take into consideration how students will use their PowerPoint to take notes in class; If PowerPoints are accessible to all students, they can focus on taking notes on what the teacher is saying in class; The text on the PowerPoint slides does not give students the cues needed to take notes effectively in class; Is there something fundamentally wrong with PowerPoint as a note-taking tool?; Students do not know how to take notes with the teachers' PowerPoints that are posted online</p> <p>Students When you are trying to write down the content of busy PowerPoint slides, you miss important details that the teacher says in class; When too much information is presented on PowerPoint slides, students have to take notes from the PowerPoint slides instead of listening to what the teacher is saying in class; When teachers put vague definition on slides students do not have time to write down the definition and listen to the teacher's explanation at the same time</p> |
| <p>Teachers The teacher said that they use Word and that the lights are on in class the entire time</p> <p>Professionals Extra online tools help students feel more grounded in class</p> <p>Students Some teachers have bad handwriting; When the teacher gives their perspective / opinion on the topic before presenting the PowerPoint in class</p> | <p>Other</p> | <p>6</p> | <p>Teachers Initially the teacher was against using PowerPoint, the teacher saw using PowerPoint as putting on a show; One challenge mentioned by the teacher is students' expectations of what they think is 'supposed' to be presented on PowerPoint slides, the teacher's use of PowerPoint may not meet the students' expectations; The teacher does not like being trapped behind the podium when teaching; PowerPoint is used differently in different programs of study, therefore students' expectations of how PowerPoint should be used differs by program of study</p> |