

## Answer Key | SAMR Model Case Studies

\*In some situations, these case studies can correspond to more than one level of the SAMR model. This correction key suggests one interpretation, but yours might differ.\*

1. After reading an article, students are asked short-answer questions to verify their understanding. This questionnaire will now move to an online form (ex: *Microsoft Forms*) that give students feedback when they submit their answers.



Replacing a questionnaire by an online form is a substitution, but the ability to provide instantaneous and automatic feedback to each student is an augmentation.

2. When teaching the Side-Angle-Side (SAS) theorem in mathematics, the teacher trades the drawings on the board for the use a math app (ex: *Geogebra*) demonstrate the proof and lets students discover through this interactive model.



Using an interactive demonstration is often an augmentation, allowing seeing more details, in a more realistic way, etc. In this example, since students can actually interact with this model, which is new to this lesson, it can be considered a modification.

3. In their arts class, students learn about different framing compositions by cropping and adding perspective blurs to a picture using a photo-editing software (ex: *GIMP*).



If students used to do this activity on paper, drawing each framing composition, this activity is an augmentation, bringing functional improvements and allowing students to consider new elements such as blurs. If framing compositions were previously studied by looking at images, this task is a modification.

4. For their next lab report, students will have the option to write down and illustrate their observations or to make a video to show and explain.



The video allows students to show and explain things they might previously not be able to put on paper. In that sense, this is an augmentation, that facilitates an existing process and makes it more accessible to all students.

5. In their physical education and health class, students record their attempts at the one foot high kick game and view them in slow motion with a partner, discussing how they obtained the best results.



The use of video and slow motion allows for a much deeper analysis of students' performance. This redefines the way to work on a movement. The generalization of this approach amongst professional athletes also accounts for its relevance.

6. Students' work samples were usually collected in a binder. This portfolio will now be stored in a file, shared with the teacher, allowing students to include a wider variety of media, including pictures, recordings, etc.



This folder-based portfolio is a functional augmentation, allowing students to store multimedia evidence of their learning. To make this portfolio even more relevant in the SAMR model, it should enhance feedback, improve students' involvement in self or peer assessment, or facilitate communication between teachers, students, parents, etc.

7. This year, students' research on another community will take the form of a digital scrapbook where they will be encouraged to include multimedia content including interviews with people from these communities.



Depending on the resources included in the digital scrapbook, this activity can fall under the modification or redefinition categories. To truly redefine this task, students must use technologies to take a new research approach, for example by conducting their own interviews instead of using existing videos or by creating a virtual visit of the community.

8. Instead of completing a paper questionnaire, students are provided with a PDF that they can fill on the computer and email to their teacher.



Using a fillable PDF is a simple substitution and does not enhance learning.

9. To review after a unit, a teacher trades their usual questioning out loud session for an interactive quiz tool (ex: *Kahoots*) to gamify the process and then uses the results to identify which students need further support.



In itself, using an interactive quiz rather than a question session is an augmentation, making it more fun, encouraging each student to try to answer and removing the pressure from the student who would have to answer out loud. In this situation, the teacher is also using the results as a formative assessment of each student, which is a modification.

10. After studying dialogues and characters, students usually write a scene featuring two or more characters. This year, they will use a shared document (ex: *Word*) to write this scene collaboratively synchronously, each one embodying a character.



Depending on the flow of the activity, it can fall under the augmentation or the modification categories. To be a modification, the use of technology must bring a level of collaboration that was not there previously.

11. Instead of creating a poster on their favourite activity and hanging them in the hallway, students are asked to make a presentation (ex: *PowerPoint*) which will be shown on a monitor near the school entrance.



Creating a digital poster is in itself a substitution of creating a paper one. However, it might bring some functional augmentations, such as the possibility to include multimedia content or to use advanced illustration techniques.

12. Students are encouraged to use a corrector's dictionary (ex: *Antidote*) to find synonyms and enrich their text's vocabulary.



In this situation, students are only replacing the physical dictionary by a digital one, which is a substitution. However, it could very easily be brought up to the augmentation level, using the tool to identify repetitive words in the text, and then change them.

13. This year, students' artwork exhibit will also be available as a website, including complements such as recordings of students' explanation of their art. It will allow a larger audience to visit the [virtual] gallery.



This virtual gallery is a whole new event, impossible to organize without the use of technology.

14. Students are usually asked to do a research on another country. This year, they are going to pretend to be a travel agent and make a web page (ex: *Wix*) where they provide key information retrieved online, including videos, maps, etc.



This task is a new, richer and more contextualized version of the previous research. It doesn't redefine what their research on another country is, but it deeply modifies how, to whom and why this information can be presented.

15. When young students learn sounds, they are asked to identify objects in the classroom that include this sound. This year, they will create a clips album of these objects and record their pronunciation for each of them.



Depending on the nature of the initial activity and on the use of the clips album, this activity can fall under the modification or redefinition categories. If this clips album was to be used in the future as a reference tool, for example, that could be considered a redefinition of the task.