



Utilizing the SAMR Model for Increased Student Engagement

The SAMR Model, created by Dr. Ruben Puentedura, refers to methods of utilizing existing technology within instruction. The overall goal being to create the deepest and most authentic learning experiences using all parts of the model within a teaching practice. The SAMR acronym represents substitution, augmentation, modification, and redefinition.

This model offers a structured approach to using technology to both enhance and transform learning experiences. Every component of the SAMR model has a valuable role in daily instruction and incorporating each in meaningful ways educators can ensure their instructional approaches are as effective as possible.

Enhance

S

Substitution

A

Augmentation

M

Modification

R

Redefinition

Transformation

Substitution

Substitution within the SAMR model refers to substituting traditional lessons and materials with digital resources. The content and objectives remain the same, but technology lends itself as the vehicle for application rather. This initial tier introduces technology as a tool for application and can streamline various aspects of teaching. In the classroom, this can look like

- Students can use online dictionaries and encyclopedias to look up definitions and facts. This provides quick and easy access to information.
- Students can use presentation software to create slideshows and presentations. This allows for more engaging and visually appealing presentations.

Incorporating substitution can significantly increase student engagement and creates accessibility where it may not have previously been present.

Augmentation

Augmentation builds on substitution by adding functional enhancements to instruction. Both substitution and augmentation highlight ways to enhance learning experiences. This tier introduces more interactive elements to accomplish this while maintaining the same content and objectives.

These enhancements can include:

- Students can use online vocabulary tools to practice new words, hear them pronounced, and see them used in context. This helps them expand their vocabulary and improve their reading and writing skills.
- Students can use digital science labs to conduct virtual experiments and collect data. This allows them to explore scientific concepts in a safe and controlled environment.
- Students can use online research databases that include citation tools to help them properly cite their sources. This helps them develop research skills and avoid plagiarism.

Augmentation creates a more interactive and student-centered learning environment.

Modification

While substitution and augmentation within the SAMR model enhance instructional practices, the modification and redefinition tiers transform lessons or activities by making technology an essential part of achieving learning objectives. At this stage, technology is integral to the learning process, which becomes more dynamic and responsive to student needs. Examples include:

- Students can use digital manipulatives to explore mathematical concepts like counting, addition, and subtraction. This provides a more interactive and engaging way to learn.
- Utilizing web-based, interactive maps to make an abstract topic visible in a hands-on and responsive way.
- Students can use digital note-taking apps to organize their thoughts, add multimedia elements, and share their notes with classmates. This helps them become more organized and collaborative learners.

As interactivity, student choice, and autonomy rise, so does student engagement, leading to better learning outcomes.



Redefinition

Redefinition is the most transformative use of technology in the SAMR Model. It enables entirely new learning opportunities that wouldn't be possible without technology. This tier incorporates key elements like accessibility, student-centered learning, choice, autonomy, and real-world connections and deepens the impact of technology by creating more personalized learning experiences. Examples include:

- Connecting students with other students or field leaders around the world as part of the unit
- Students post their work online to be shared with peers and the wider community, additionally the work can be created as a podcast, documentary, or website to showcase their learning. This encourages them to use technology as a tool for expression
- Participating in a virtual field trip where students can "visit" zoos, museums, or historical sites around the world through online platforms or virtual reality headsets
- Students can learn to code and create apps or games that address social issues. This empowers them to be digital citizens and problem-solvers

Each tier of the SAMR model has a place in daily instruction. While substitution and augmentation are often practical and effective, striving for redefinition can further enrich the learning experience. Ideally technology is used in the classroom in a meaningful way, aiming to integrate all SAMR tiers to achieve a comprehensive instructional approach.

Each tier of the SAMR model has a place in daily instruction. While substitution and augmentation are often practical and effective, striving for redefinition can further enrich the learning experience. Ideally technology is used in the classroom in a meaningful way, aiming to integrate all SAMR tiers to achieve a comprehensive instructional approach.