TeachME Professional Development

Technology to Support Postsecondary Student Learning

Introduction-Overarching Themes

1. Overarching themes when using technology to support particular aspects of student learning include each of the following EXCEPT:

A. Focus on how technology is used, not on the technology itself and ensure it is aligned to specific learning goals
B. Pay attention to vision and leadership when implementing technology
C. Technology deployments may require significant investment and coordination
D. Rigorous research is limited, and more is needed

Recommendation 1

2. When used effectively, communication and collaboration tools can increase engagement by allowing students to communicate about course content and their learning experiences.

A. True
B. False

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3. When selecting new technology tools to adopt in their courses, instructors should consider:

A. What technology is currently available on campus
B. Guidance and support for using technology
C. Student preferences and experiences
D. Appropriate expectations for technology use

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4. According to the consensus panel, communication and collaboration tools that enable discussion forums and blogging can be used to provide students the opportunity to write reflectively, discuss learning experiences, and:

A. Share challenges
B. React to the experiences of classmates
C. Teach each other
D. Clarify new skills and ideas

Potential Obstacles and the Panel's Advice

5. If students are resistant to the use of communication and collaboration platforms that instructors put in place for course activities and assignments, instructors may want to encourage synchronous communication or make participation optional.

A. True
B. False

Recommendation 2

6. Which of the following is NOT one of the panel's recommendations to enable institutes of higher education to leverage technology?

A. Vary or blend course formats
B. Package course content to minimize cost, maximize accessibility, and accommodate different learning preferences
C. Enhance students' organizational skills
D. Accelerate course formats

How to Carry Out the Recommendation

7. The ADDIE design and development model can be used to develop flexible course delivery formats by offering a framework that includes assessment, delivery, discovery, interpretation, and examination.

A. True
B. False

Applies to Recommendation 2B

8. Students' understanding of course material may be deepened through engaging in interactive online modules or by viewing simulations or visualizing content in new ways.

A. True
B. False

Potential Obstacles and the Panel's Advice

9. Students may be unfamiliar with all the latest technologies so instructors should consider leveraging technology that students have already used or that:

A. Aligns with students' objective
B. Students choose to sample
C. Supports course material that students repeatedly stumble over
D. Students will find intuitive

Recommendation 3:

10. Self-regulated learning is a process in which students understand and control their own learning, that involves thinking about one's thinking, strategic actions such as planning and self-monitoring, self-efficacy, and motivation to learn, and that is driven by:

A. Critical problem solving
B. Metacognition
C. Empowerment
D. Authenticity

How to Carry Out the Recommendation

11. Video-based learning modules with interactive components including note-taking features, practice questions, and supplemental resources related to the topic can be used to boost student engagement and scaffold students' use of self-regulated learning strategies.

A. True
B. False

Figure 3.5. Sample Training Model to Support Self-Regulation Through Learning Technologies

12. Students learn to focus on mastering the steps related to completing a learning task in which phase of self-regulation training?

A. Observation
B. Emulation
C. Self-control
D. Outcome

Potential Obstacles and the Panel's Advice

13. Since many instructors believe students should already know how to monitor their learning, and many students don't believe they need to be taught how to self-regulate learning, administrators should incorporate self-regulated learning into their institution-wide learning objectives.

A. True
B. False

Recommendation 4

14. The most widely used technologies in traditional face-to-face courses for providing immediate feedback are electronic publishing devices that report instructor comments and suggestions.

A. True
B. False

How to Carry Out the Recommended

15. Specific recommendations for using technology to provide timely feedback on student performance include each of the following EXCEPT:

A. Determine the course segments or content for which students would benefit most from timely and targeted feedback
B. Strategically incorporate feedback technologies into the course
C. Design questions that align with students' access and skills
D. Use data to inform instruction, and to help students guide their learning

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16. Sophisticated technologies are being developed to provide students with feedback that supports metacognitive thinking and refection when they are online, such as adaptive learning environments, interactive online modules and courses, and intelligent tutoring systems.

A. True
B. False

Recommendation 5

17. Incorporating complex problem-solving activities into postsecondary instruction allows students to interact more deeply with learning material, to practice higher-order thinking skills, and to:

A. Make connections among concepts

B. Take personal action to resolve conflicts and discuss alternatives
C. Encourage both independent and collaborate learning
D. Develop thoroughness, patience, and perseverance

Lead Students in Reflective Discussion

18. Instructors should help students to understand that there may not be a “right” answer to simulated problems when leading students in reflective discussions about simulations, and should encourage students to learn from their mistakes and be comfortable with:

A. Struggle and frustration
B. Ambiguity and failure
C. Indecision and vulnerability
D. Pressure and uncertainty

Appendix C: Rationale for Evidence Ratings

19. Expert recommendations for using technology to support student learning were based on study outcomes in the domains of academic achievement, college attendance, persistence, attainment of degree, certificate, or credential, post-college employment and income, or:

A. Having a sense of self-belief and self-confidence
B. Exhibiting a growth mindset
C. Student engagement and motivation
D. Well-defined personal goals and values

Recommendation 3

20. All of the studies that investigated the effectiveness of incorporating technology that models and fosters self-regulated learning strategies demonstrated statistically significant effects in the domains of persistence and self-belief.

A. True
B. False
