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Tiffany Barrett
University of Nevada, Las Vegas, tiffany.barrett@unlv.edu

Jen Nash
University of Nevada, Las Vegas, jennifer.nash@unlv.edu

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Informed self-assessment and peer evaluation to foster the development of adaptive learners in online education

Tiffany Barrett, PT, DPT
Assistant Professor-in-residence
Jennifer M. Nash, PT, DPT
Assistant Professor-in-residence
Department of Physical Therapy

Teaching Practice & the Need it Addresses

Virtually, physical therapy students have shown difficulty engaging in self-reflection. We aimed to adapt previous modes of assessment to the online environment. Informed self reflection skills were taught and practiced in addition to peer review of work to increase their metacognition of technical and interprofessional skills. Past in-person learning experiences were moved to a video format, and informed self-assessment activities were assigned through self-reflection and peer evaluations.

How Others Can Adopt This Practice

1. Identify an content area where informed self-assessment is beneficial, teach self-assessment strategies then assign students opportunities to practice these skills.[1]
2. Develop instructions, such as a checklist, to guide the learner that state clear learning objectives and anchor them with specific criteria or skills that need to be demonstrated.
3. Utilize a rubric that collects external feedback from peer review via specific criteria to ensure learner receives robust information.

To implement self-assessment and peer review, instructors can utilize portfolio projects, simulation experiences, and service-learning, to name a few.

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Best Teaching Practices Expo 2022

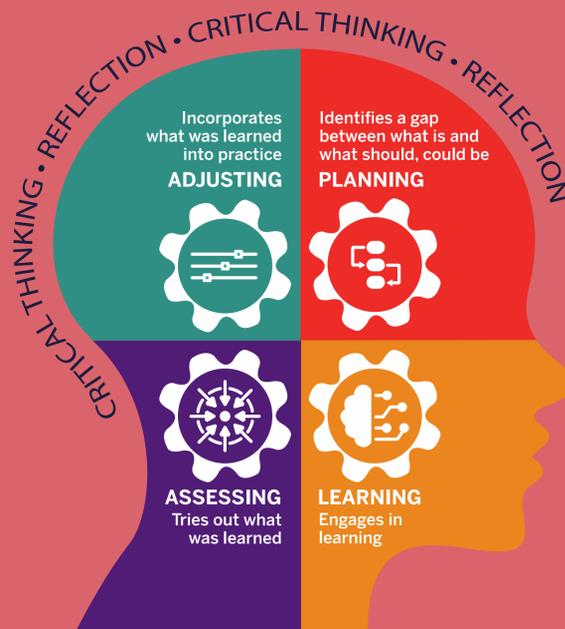# Creating adaptive learners through online education

Figure 1
Cutrer, William B., Bonnie Miller, Martin V. Pusic, George Mejicano, Rajesh S. Mangrulkar, Larry D. Gruppen, Richard E. Hawkins, Susan E. Skochelak, and Donald E. Moore Jr. "Fostering the development of master adaptive learners: a conceptual model to guide skill acquisition in medical education." Academic Medicine 92, no. 1 (2017): 70-75.

Evidence it Benefits Students

The online courses that included these teaching strategies were: DPT 754 and DPT 780.

STEP 1:
- Students completed a video assignment to record themselves performing required skills.

STEP 2:
- Students were asked to watch their video, submit a self-assessment of their work, and perform a peer review.

OUTCOMES:

A. In DPT 754, students reported that this method was beneficial in identifying their weaknesses and learning from others' performances. Even though the assignments were similar in difficulty, the class mean increased 4% from the 1st to the 4th assignment indicating students likely produced a better product after reflecting on their previous work.

B. In DPT 780, the students were given the opportunity to incorporate peer feedback before their final submission, which allowed them to receive high marks on this assignment. They also reported that reviewing their peers work allowed them to understand different techniques that they may use to be successful in the future.

Resources & Where to Find Them

We'd like to guide you to the framework for creating master adaptive learners, according to Cutrer, which has four general phases as seen in Figure 1.

The areas we would like to highlight are:
- **Learning Phase –** Where students employ effective strategies such as knowledge retrieval practice, spaced repetitious learning, elaboration, and concept interleaving illustrated in our assignments. [2]
- **Assessing Phase –** Where students focus on the importance of self-assessment.[2]

When ready to create an assignment, follow clear guidelines available through Canvas for troubleshooting tasks such as setting up a peer review assignment, adding a rubric to a peer review, and how to submit a video assignment.

References

1. Gadbury-Amyot, C. C., Woldt, J. L., & Siruta-Austin, K. J. (2015). Self-assessment: A review of the literature and pedagogical strategies for its promotion in dental education. American Dental Hygienists' Association, 89(6), 357-364
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