# SUMMARY FOR 2019 ABE PROCEEDINGS

# “AIDING STUDENT SUCCESS IN ONLINE CLASSES: CHUNKING, MOTIVATION, ATTITUDE, AND KNOWLEDGE PREPAREDNESS”

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As demand for online higher education is staying strong and the number of online courses offered continues to increase (Seaman et al., 2018), universities should evaluate how to ensure a quality experience for students in online education.  However, an increase in demand for “quality” online education that ensures student success causes challenges for educators. For example, educators are feeling an increase in the complexity in the online learning environment (Hogan et al., 2006).

This panel discussed some important strategies for increasing student success and satisfaction as well as an overall better learning experience in online classes.  These strategies can be easily implemented in the online classroom environment without adding to much complexity. The three areas covered were: (1) how to use “chunking” or touch points to keep students engaged on a regular basis, (2) how to make sure that students have the “right motivation and attitudes” for success, and (3) how to prepare students when specific knowledge is required at the beginning of class.

## **Chunking (Small Bites)**

Chunking refers to the strategy of breaking down information into bite-sized pieces so the brain can more easily digest new information. The reason the brain needs this assistance is because working memory, which is where we manipulate information, holds a limited amount of information at one time. (Malamed, n.d.)

### ***Chunking Techniques***

Using chunking techniques is especially important in online classes. In a traditional face to face class, the instructor naturally presents smaller amounts of information at one time. The instructor can see if the class is absorbing the concepts, students can ask questions etc. Thus, course design incorporating chunking is helpful to student success in online classes. Steps to incorporate chunking were presented as follows:

* Start at the highest level, conceptually related topics
* Develop individual topics supporting learning of the higher level information
* Break down individual topics into small pieces of information

The maximum number of minutes per video is suggested at no more than 15. It is fine to have shorter videos, if the video supports the topics appropriately.

The presentation included a real-time view of a current course that had just received “Quality Matters” certification. Specifically, the breakdown of the material was as follows;

* Highest level of information: Module page, chapter overview
* Individual topics: Learning objectives for the module
* Breakdown of information:
  + Steps to complete the chapter
  + All learning materials
    - Module PowerPoint
    - Module videos presented by sub-topic (theory and problems separate)
    - Homework problems and solutions
    - Other assignments – computer cases, discussion boards
    - Links to quizzes, outside publisher systems, other resources

The information within the course is presented in digestible “chunks” that the student can approach one by one.

### ***Other Bite-Sized Techniques***

Other related techniques were discussed that have been shown to increase student engagement in online courses. Some ideas were:

* Multiple small assignments, such as a weekly quiz, discussion board post, graded homework. The objective is to incentivize the student to stay engaged in the course.
* Blackboard Collaborate, which is a course “chat room” is useful for one-on-one questions with students, as well as exam reviews, online office hours etc. It has been found more effective for the instructor to have specific questions to go over during these sessions.
* Consider extra credit for attendance at college events. Although the online students may not make it all on-campus events, they appreciate when they are asked. It helps them feel more engaged in the campus community.

## **Student Motivation and Attitudes**

Online courses require a high level of autonomy and self-regulation compared to traditional, face-to-face courses.  Studies report that learner motivation is strongly associated with learning persistence, retention, achievement and satisfaction (Sanghoon Park & Heoncheol Yun, 2018).  Due to the autonomous nature of online learning, motivation plays a crucial role (Sanghoon Park & Heoncheol Yun, 2018). There are two types of motivation: autonomous and controlled (DeLong 2002). Autonomous motivation is about volition and choices that meet life goals and enjoyment (DeLong 2002). It includes fascination with the subject, a sense of its relevance to life and the world, a sense of accomplishment in mastering it, and a sense of calling to it (DeLong 2002). Controlled motivation includes parental expectations, expectations of role models, and good grades (DeLong 2002).

This discussion addressed the following strategies faculty can use to motivate online students:

* Get to know your students. At the beginning of the semester, welcome each student (if possible) to the course. This can be achieved through a personalized comment to each student in an introduction forum.
* Help students find personal meaning and value in the material.
* Post a weekly announcement that provides an overview of the week ahead and, possibly, a recap of last week, or both.
* Set forth estimated completion times for assignments.
* Use a “Course Questions Discussion Board.”
* Hold virtual office hours either through a set schedule or by appointment or both.
* Reach out via email to students who haven’t participated in the course and/or performed poorly on an assignment.
* Use various types of learning materials such as videos, podcasts, or external links to meet all learners’ preferences.

In addition, students do not come to class as blank slates. They come with a host of past learning experiences which shapes how they learn. Inevitably, student learning experiences are laden with emotional reactions, which translate into attitudes (Frenzel, Goetz, Lüdtke, Pekrun, & Sutton, 2009). Exploring how student attitudes affect learning, in both positive and negative ways, and strategies on how to leverage positive experiences into a positive classroom were discussed.

## **Student Knowledge Preparedness**

When students start an online class, a specific knowledge base may be expected of them by the instructor to ensure student success. As students have very diverse backgrounds, some students may fulfill the instructor’s expectations; however, others may not. This part of the panel discussion gave some tips which instructors of online classes can use to help students be better prepared right at the beginning of class and “hit the ground running”.

The discussion suggested ways to present information aimed at improving student preparedness, for example through statements on the syllabus and/or through a separate “preparedness” module. A preparedness module is a module that is solely dedicated to student preparedness and contains all the information to improve preparedness. If a preparedness module is used, it ideally includes course and specific topic learning objectives related to the knowledge base covered in that module. In addition, statements of expectations (along with examples of “what is acceptable” and “what is not acceptable”), a list of universal design of instruction (or UDI) compliant resources that help students acquire this knowledge, and assessments that let students identify their level of knowledge, are recommended. The specific skills discussed in this panel included grammar, citation, and math skills. Grammatical skills may be important for student-to-student or student-to-instructor communication, such as e-mail communication, papers, and forum discussions; citation skills may be necessary for successfully presenting research in papers, presentations, and forum discussions, and math skills may be needed in any math-based classes, such as Finance and Accounting classes.

### ***Example Sources***

Examples of sources that students can use to refresh their *grammar* skills:

Capitalization rules:

Towson University, *Online Writing Support*. Retrieved from

<https://webapps.towson.edu/ows/capitalization_rules.htm>

Punctuation rules:

Olson, Gary A. (1980). *Punctuation Made Simple*. Retrieved from

<http://punctuationmadesimple.org/>

Examples of sources that students can use to refresh their *citation* skills:

Purdue Online Writing Lab, Purdue University, Research and Citation Resources,

Retrieved from

<https://owl.purdue.edu/owl/research_and_citation/resources.html>

American Psychology Association

APA Style Blog. Retrieved from

<https://blog.apastyle.org/>

Examples of sources that students can use to refresh their *math* skills:

- KhanAcademy.org (for example: KhanAcademy. *What is a Variable?* [Video File]. Retrieved from <https://www.khanacademy.org/math/algebra-2018/introduction-to-algebra/alg1-intro-to-variables/v/what-is-a-variable?modal=1>

- YouTube (for example:, MathZilla (2015, Jul 24). *Solve the equation – cross multiply* [Video File]. Retrieved from <https://www.youtube.com/watch?v=CE7zQi0CZ5Q>

- MathIsFun.com (for example: MathIsFun.com. *How to convert percentages into decimals.* Retrieved from <https://www.mathsisfun.com/converting-percents-decimals.html>

- Publisher Resources (such as McGraw Hill’s Connect)

References

DeLong, M. & Winter, D. (2002).  Learning to Teaching and Teaching to Learn Mathematics: Resources for Professional Development, *Mathematical Association of America*, page 163.

Frenzel, A. C., Goetz, T., Lüdtke, O., Pekrun, R., & Sutton, R. E. (2009). Emotional transmission in the classroom: Exploring the relationship between teacher and student enjoyment. *Journal of Educational Psychology*, *101*(3), 705–716. Retrieved from: <http://doi.org/10.1037/a0014695>

Hogan, R.L., McKnight, M.A., & Legier, J.T. (2006). Moving from traditional to online instruction: Considerations for improving trainer and instructor performance. *Journal of Human Resources and Adult Learning, (2)*. 34–38.

Malamed, Connie. (n.d.) Chunking Information for Instructional Design. *The eLearning Coach.* Retrieved from: [*http://theelearningcoach.com/elearning\_design/chunking-information/*](http://theelearningcoach.com/elearning_design/chunking-information/)

Park, S., & Yun, H. (2018). The influence of motivational regulation strategies on online students’ Behavioral, Emotional, and Cognitive Engagement. *American Journal of Distance Learning Education, (32)*1, 43-56.

Seaman, J. E., Allen, E. I., & Seaman, J. (2018). Grade Increase: Tracking Distance Education in the United States. *Online Learning Consortium*. Retrieved from: <http://onlinelearningsurvey.com/reports/gradeincrease.pdf>