

MAALACT 2016
October 7-8, 2016
McDaniel College

Friday October 7th, 2016

3:00 – 8:00 pm	Registration, Decker Auditorium Foyer
3:30 – 4:15 pm	Executive Committee Meeting, McDaniel Lounge
4:30 – 5:00 pm	General Meeting, McDaniel Lounge
5:30 – 6:30 pm	Social Hour, McDaniel Lounge
6.30 – 7.45 pm	Banquet, McDaniel Lounge
8:00 – 9:00 pm	<u>Plenary Lecture</u> , McDaniel Lounge Diane Bunce, The Catholic University of America

“Chemical Education Research: Putting the WHY and HOW into Understanding Student Learning”

As teachers, we all have a strong sense of what topics will be difficult for our students to learn, but do we know *why* these topics are difficult? Some teachers have great success with these so-called difficult topics. How do they achieve their success? Are there some general principles of how students learn and behave in learning environments that would help us better plan what and how to teach? Chemical education research tries to investigate *how* students learn and *why* some topics or techniques are more successful than others. Obviously, there are many questions that chemical education research could look at but only a few have been investigated. Together with a better understanding of how learning takes place and the limitations of how the brain operates, there are some things about learning that we are beginning to understand better. This presentation will start with a discussion of problem areas in student learning identified by members of the audience and will attempt to address some of these with what we now know as a result of research. This is not your average power point “lecture”. This is a give and take among professionals all of whom hold some pieces of the puzzle we call learning.

Saturday October 8th, 2016

8:30 – 10:00 am Registration, Decker Auditorium Foyer

10:00 – 11:00 am Concurrent Sessions I

- “The in-person professor: Striking an effective balance between online resources and face-to-face work with students”
Lewis Recitation Hall (LRH) 119: Pamela Douglass, Goucher College
- “Strategies to Revitalize the STEM Programs at Wesley College”
LRH 120: Richard Kashmar, Wesley College
- “Small-group discussion, peer-review, rubrics and other approaches in improving science writing”
Lewis Hall of Science (LHS) 222: Alfred D'Agostino, Notre Dame of Maryland University

11:00 - 11.15 am Coffee Break, Decker Auditorium Foyer

11.15 - 12.15 pm Concurrent Sessions II

- “Exploring connections between instructional methods and learning style and outcomes through student assessment in a general education chemistry course”
LHS 222: Alfred D'Agostino, Notre Dame of Maryland University
- “Organic Chemistry II Laboratory Re-designed as a Writing Intensive Course”
LRH 119: Joseph Kremer, Alvernia University
- “SENCER in the Chemistry Curriculum: The Benefits and the Challenges”
LRH 120: Hanae Haouari, New Jersey City University
- “Requirements to attain/maintain ACS certification are increasingly demanding. Does your college need ACS certification to succeed?”
Decker Auditorium: Peter Craig, McDaniel College

12.30 - 1.45 pm Lunch, McDaniel Lounge

2:00 – 3:00 pm Plenary Lecture, Decker Auditorium
Rick Nelson, Retired Instructor

“Memory, Concepts, Cognitive Science, and Chemistry”

In introductory chemistry courses, should students be encouraged to solve problems by reasoning based on conceptual understanding - or by applying memorized facts and algorithms? With the assistance of new technologies, cognitive scientists have recently reached a new consensus on the role of memory and concepts during initial study in a field.

With active audience participation, we will discuss the role and characteristics of:

- the working memory where the brain solves problems,
- the long-term memory where the brain stores knowledge

Our focus will be how science’s new understanding of cognition can improve instructional design and student learning.

3.00 - 3.30 pm Closing Business and Adjournment, Decker Auditorium