



A Monthly Newsletter from ADEA Executive Director Richard W. Valachovic, D.M.D., M.P.H.

*In this month's letter, Dr. Rick Valachovic, Executive Director of the American Dental Education Association, looks at the progress made by ADEA Commission on Change and Innovation in Dental Education (ADEA CCI) and at some innovative student assessments presented at this year's ADEA CCI Liaisons' Meeting.*



### ***It Takes Ideas and Then Some to Spark Lasting Change***

*Ideas are transformative only when people grab hold of them and put them into practice.*

Last month the ADEA Commission on Change and Innovation in Dental Education (ADEA CCI) held its second Liaisons' Meeting in Chicago, marking a critical juncture in the quest to transform predoctoral dental education and bringing together faculty representatives from nearly all of our dental schools.

ADEA CCI was created in 2005 to provide leadership and oversight to a systemic, collaborative, and continuous process of innovative change in the education of general dentists. For the past three years, ADEA CCI has encouraged some of the most thoughtful and creative individuals in our profession to think strategically about new approaches. They've shared their insights in more than a dozen white papers published in the *Journal of Dental Education (JDE)*, covering such diverse topics as how to teach critical thinking, the influence of emerging science on dental education, and the quality of life for faculty on our campuses . . . and the ideas keep flowing. You can find links to all of the articles at the end of this letter, and more articles by ADEA CCI members are slated for publication this summer and fall.

The JDE has been an excellent platform for disseminating some of the most innovative proposals for curricular reform and for generating debate around professional licensure and aspects of contemporary dental practice that are shaping dental education today. This spring, the ADEA House of Delegates adopted "Competencies for the New General Dentist," a landmark document produced by ADEA that provides a foundation for change and innovation in dental education. Yet despite the power of good ideas, more is needed to foster change and innovation.

ADEA CCI started to meet this challenge in 2007 with the appointment of ADEA CCI Liaisons representing ADEA member institutions. The Liaisons serve as a conduit through which to transfer innovative ideas about teaching and learning to dental school classrooms and clinics across North America. In 2008, many ADEA CCI Liaisons became [MedEdPORTAL](#) Advocates and assisted colleagues at their home institutions in downloading high quality, peer reviewed teaching resources developed by other faculty—as well as submitting courses to be shared by other institutions throughout the world. At last month's meeting in Chicago, ADEA CCI Liaisons received a crash course in methodologies that have the potential to improve the effectiveness of our teaching and more accurately measure our student's readiness for practice.

The Triple Jump? The Portfolio? The OSCE? If these terms are alien to discussions of student assessment in your program, have no fear. You'll know more in just a few minutes, and one of these less familiar assessments may soon makes its debut on a campus near you.

The 100 dental educators who attended the gathering were encouraged to try out these new assessments in their own courses. In-depth workshops familiarized them with the nuts and bolts of each new approach, and strategy sessions afforded them an opportunity to develop implementation plans that will ease their ability to put nontraditional assessments into practice.

One of the presenters, Cindy Amyot, Director of Distance Education and Faculty Development at the University of Missouri-Kansas City (UMKC) School of Dentistry, stated that nontraditional assessments have distinct advantages in academic programs such as dentistry that develop complex, integrated skills. She believes these forms of assessment require students to display their skills in a way that is more direct and thorough than traditional "paper and pencil" tests.

She talked about how UMKC uses portfolios of student work in its dental hygiene program to document evidence of traditional and nontraditional sources of student learning, progress, and achievement over time. Student portfolios include work that stands as evidence of attainment of various competencies and the student's reflections on how those competencies were

achieved. This last requirement gives professors insight into how students learn and also enhances student learning. Cindy added that carefully constructed rubrics and faculty training in how to score portfolios are essential to successfully applying this method.

Another intriguing approach, the athletically titled "Triple Jump Exercise (TJE)," was developed by faculty at McMaster University in the 1970s and has been adopted at a number of medical schools. Barbara Gushrowski uses the assessment at the Indiana University School of Dentistry with students in the school's innovative problem-based learning program. To begin, students are presented with a case and asked to generate a hypothesis about the problem it presents. In the next step or "jump," students are given two hours to conduct independent research. In the final "jump," students describe their research process and the knowledge they've acquired to the person making the assessment.

"TJE is designed to test the skills the students are acquiring through problem-based learning," Barbara Gushrowski told us. "The grading criteria are designed to capture critical thinking, problem-solving, self-directed learning, and self-reflection."

These competencies arise every time I discuss curriculum with colleagues. They are the very ones that most faculty members want their students to develop. Which raises the question, can better ways of assessing student learning help change the way we teach? If so, what's preventing us from putting new assessments into practice?

A recent survey conducted by Bill Hendricson from UTHSC San Antonio Dental School and the Academy for Academic Leadership looked at the frequency with which various assessment methods are used. The survey found that multiple choice questions are still the most widely used method in U.S. dental schools for assessing all student competencies with the exception of "communication and interpersonal skills." This reliance on traditional assessments goes beyond simple resistance to change. In fact, presenters cited several other barriers to implementing new assessments, including their time consuming and labor intensive administration and concerns about their validity and reliability.

These are understandable concerns, but are they any less pertinent in evaluating the assessments that predominate today? This question has been raised with some urgency in recent years in connection with the National Dental Board Examinations. As most of you know, concerns about the security of the exam questions and the misuse of scores to screen candidates for admission to postgraduate programs or to rank schools have resulted in the decision by the Joint Commission to move to a pass/fail grading system in 2010.

Laura Neumann, Senior Vice President for Education/Professional Affairs at the American Dental Association, and Andrew Spielman, a Professor at New York University's College of Dentistry, talked about the impact of this change during the ADEA CCI Liaisons' Meeting. Without Board scores to distinguish one applicant from another, Andrew believes that advanced education program directors will rely more heavily on letters of recommendation, portfolios, interviews, and consideration of students' research and extracurricular activities—options they are already employing. This will force students to look more seriously at research, outreach, and extern opportunities to bolster their CVs. And it will force professors to toss out the boilerplate and write individual letters of recommendation for their students. Andrew, who already interviews 70 to 80 students a year and writes customized letters on their behalf, acknowledges the magnitude of these changes.

"This will mean more work for all of us and lengthen the selection process, but using portfolios and other screening tools will better reflect students' clinical and scientific knowledge and the personal attributes that make them well suited to particular programs or specialties. I'm optimistic that this is moving in the right direction and will produce better professionals," he said.

Laura Neumann concurs and notes, "This move also supports innovation and curricular reform. With pass/fail, schools can no longer say they can't change the way they teach or their students won't achieve competitive scores on the National Boards."

When it comes to our clinical licensure examinations, the other issue on everyone's mind is whether patient-based exams are the most reliable and most ethical way of determining who is adequately qualified to enter the practice of dentistry. Canada does not use patient-based exams to assess clinical competence. Instead it relies on an Objective Structured Clinical Examination (OSCE) that tests the ability of dental school graduates to make the kinds of decisions they will face every day in practice.

Those gathered in Chicago were fortunate to have as their keynote speaker Jack Gerrow of the National Dental Examining Board of Canada (NDEB). He acquainted everyone with the Canadian certification model firsthand, by bringing some OSCE "stations" to Chicago so meeting participants could see for themselves what the OSCE is really all about.

Each station presents students with a case history that includes photographs, radiographs, and items such as partial dentures and asks them to make the kinds of microjudgments that dentists must make every day in clinical practice. In order to prevent cheating and to make the examination fair, students are told the questions in advance but otherwise have no prior knowledge of the cases they will encounter. They must choose as many answers as appropriate

from among fifteen possibilities offered, so there's no room for guesswork.

The OSCE is also commonly used as an assessment tool in Canadian dental schools. Jack Gerrow believes the NDEB OSCE is a valid and reliable high-stakes examination useful in determining who is qualified to be a safe practitioner in Canada. He attributes much of its success to the care that goes into constructing each OSCE, a process that involves thorough testing of the exam by a panel of forty experts and selection of items by general dentists. "There is no one valid, reliable testing method. However, data show that patient-based examinations do not protect the public," says Gerrow, citing his [October 2006 article on this topic](#) in the *Journal of the American Dental Association*. He adds, "Eventually everyone passes because they learn how to take the exam, not because they become better dentists. It's important that we apply principles of scientific rigor to educational measurement."

In the August 2003 issue of the JDE, Jack Gerrow and his coauthors [share findings](#) from another study, this one looking at the validity of the Canadian dental certification examinations. The OSCE has proved to be a valuable tool in Canada. We ought to take a good, hard look at it as we consider further changes to the certification process in the United States.

I hope I've whetted your appetite for fresh approaches. Ideas can be transformative, but only when people grab hold of them and put them into practice.

*ADEA Commission on Change and Innovation in Dental Education*  
Kenneth L. Kalkwarf, N. Karl Haden, and Richard W. Valachovic  
[J Dent Educ. 69: 1085-1087](#)

*The Case for Change in Dental Education*  
ADEA Commission on Change and Innovation in Dental Education  
[J Dent Educ. 70: 921-924](#)

*Educational Strategies Associated with Development of Problem-Solving, Critical Thinking, and Self-Directed Learning*  
ADEA Commission on Change and Innovation in Dental Education  
[J Dent Educ. 70: 925-936](#)

*The Dental Education Environment*  
ADEA Commission on Change and Innovation in Dental Education  
[J Dent Educ. 70: 1265-1270](#)

*The Influence of "New Science" on Dental Education: Current Concepts, Trends, and Models for the Future*  
Anthony M. Iacopino, D.M.D., Ph.D.  
[J Dent Educ. 71: 450-462](#)

*Making Academic Dentistry More Attractive to New Teacher-Scholars*  
Cathy A. Trower  
[J Dent Educ. 71: 601-605](#)

*Does the Dental School Work Environment Promote Successful Academic Careers?*  
Carroll-Ann Trotman, N. Karl Haden, and William Hendricson  
[J Dent Educ. 71: 713-725](#)

*Dentistry and Dental Education in the Context of the Evolving Health Care System*  
Maxwell H. Anderson  
[J Dent Educ. 71: 988-993](#)

*Dental Education: A Leadership Challenge for Dental Educators and Practitioners*  
Kathleen Roth  
[J Dent Educ. 71: 983-987](#)

*Revisiting the National Board Dental Examination*  
Laura M. Neumann and R. Lamont MacNeil  
[J Dent Educ. 71: 1281-1292](#)

*Realigning the National Board Dental Examination with Contemporary Dental Education and Practice*  
R. Lamont MacNeil and Laura M. Neumann  
[J Dent Educ. 71: 1293-1298](#)

*Creating the Dental School Faculty of the Future: A Guide for the Perplexed*  
Charles N. Bertolami  
[J Dent Educ. 71: 1267-1280](#)

*Faculty Development to Support Curriculum Change and Ensure the Future Vitality of Dental Education*  
Frank W. Licari

[J Dent Educ. 71: 1509-1512](#)

*Does Faculty Development Enhance Teaching Effectiveness?*  
ADEA Commission on Change and Innovation in Dental Education  
[J Dent Educ. 71: 1513-1533](#)

*The Quality of Dental Faculty Work-Life: Report on the 2007 Dental School Faculty Work Environment Survey*  
N. Karl Haden, William Hendricson, Richard R. Ranney, Adriana Vargas, Lina Cardenas, William Rose, Ridley Ross, and Edward Funk  
[J Dent Educ. 72: 514-531](#)



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