

**AERA 2016
Washington, DC
Friday, April 8 -
Tuesday, April 12**



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AERA Division I - Vice President's Message

Dear Colleagues,

While AERA celebrates its 100th anniversary, it is important to note that our Division is celebrating 45 years. From its start as a special interest group (SIG) in 1971, we now have over 500 members, with research interests in assessment, professional development, and teaching and learning. Under the leadership of Dr. Phil Bashook, the SIG became Division I in March 1978. The goals of the Division have not changed: to foster communication and build a common identity among scholars who are educators at professional schools. The many activities of the Division are meant to support its members' professional development and research interests. More information about the Division's history is available in "Coming of Age: Developing a Community of Educators in the Professions" edited by Ara Tekian and Ilene Harris, on the Division I website.

This year's meeting highlights member interests in a variety of ways. I am pleased that our program co-chairs and program planning committee have selected papers for presentation that address these interests. Our graduate students have organized what will undoubtedly be a lively session, and the program chairs' report provides details on two other invited sessions that we hope will provide food for thought.

The Mentoring Committee continues to connect junior and senior members. Both the Professional Development and Teaching and Learning communities are planning collaborations that will provide a foundation for the publication of two books. More detailed information about these efforts will be provided at their community meetings. A number of Assessment sessions are in the program this year, and there's a call to join the community as they discuss topics of interest for next year's Annual Meeting.

I hope that you will save some time for networking during the meeting. The collegial atmosphere created during and between the sessions is critical to building our community. Division awards will be given at the Business Meeting, which might provide an ideal opportunity for networking. The Business Meeting will be held on Saturday, April 9, from 6:15 to 7:45 pm in the Convention Center, Level One, Room 143 B. And please join us for the Division I Social on Sunday, April 10, from 6:00 to 8:00 pm at Clyde's of Gallery Place.

As I prepare this message, I am reflecting on the efforts of the Division members that make our Division thrive. The time and talent that all of you contribute as volunteers speaks to the commitment you have to our community. To quote Maya Angelou, "Nothing will work unless you do." Thank you all for the work that you do and the service that you provide to the Division.

Danette McKinley,
Division I VP



PERQ

2016 Annual Meeting Division I Program Chair's Message

April is almost here! We are looking forward to seeing everyone in Washington D.C. Thanks to the many excellent papers and symposia submissions, the 2016 Program Planning Committee has put together an exciting program. Here is a summary by the numbers.

- ⇒ 11 symposia proposals submitted: 4 accepted as symposia/ 3 accepted as roundtables
- ⇒ 87 individual papers submitted: 40 accepted for paper sessions/ 11 accepted for posters sessions/ 11 accepted for roundtable sessions

The goal was for each submission received at least 3 reviews; in most cases, this goal was achieved.

We want to thank all the authors, reviewers, session chairs, and discussants for their contributions and commitment to AERA and the Division. The program cannot be a success without your efforts! Please note that most of the Division I sessions are scheduled to take place at the Convention Center.

In addition, Division I was very fortunate to have organized three invited speaker sessions, which we believe will attract a large audience. The specifics for these sessions are highlighted here:

Translating scholarship for the local and global public forum [Graduate Student Fireside Chat]

April 9, 10:35am to 12:05pm, Convention Center, Level One, Room 146B

Chairs: Michael Soh & Sarah B. McBrien

Speakers: LuAnn Wilkerson, Lawrence Doyle, Eugene L. Anderson, Danette W. McKinley, Monica M. Cuddy, Mark A. Albanese

Responsible conduct and dissemination of research on professional education

April 9, 12:25pm to 1:55pm, Marriott Marquis, Level Three, Chinatown

Chair: Danette W. McKinley

Speakers: Kevin W. Eva, Carol R. Thrush, Toby Schonfeld

Embracing the future, Cherishing the past

April 11, 10:35am to 12:05pm, Convention Center, Level One, Room 143B

Speakers: Ilene B. Harris, Patricia S. O'Sullivan, Ara Tekian, LuAnn Wilkerson

We look forward to seeing everyone in Washington DC in April!

Anthony R. Artino, Jr. PhD

2016 Division I Program Co-Chair

anthony.artino@usuhs.edu

Ting Dong, PhD

2016 Division I Program Co-Chair

ting.dong.ctr@usuhs.edu



Division I Social
Sunday, April 10, 6:00—8:00 pm

Clyde's of Gallery Place

707 7th Street NW

Phone: (202) 349-3700

<http://www.clydes.com/gallery-place>

Our Gallery Place location will greet you with a breath-taking staircase and a palatial, museum-like experience complete with sporting sculpture, collectible prints and original works of art featuring sports legends and Washington's own storied history.

*The final menu is not yet finalized.
 The restaurant menu is seasonal
 and changes almost every day.
 Each entrée will be accompanied by
 one starch and one vegetable. (A
 vegetarian option will be available)*



Dinner cost: U.S.\$ 80.00

All Division I members and friends are invited to attend! Please note that the sign-up process is different from previous years. Important changes to the process:

- You must include the event in your AERA Registration; other means of registering will not be available. On the Registration page, go to the “Events” tab, and add the Division I Social. Even if you have already registered and paid for the 2016 meeting, log on to your account, then click on “MY AERA” scroll down to 2016 AERA Annual Meeting and then click on “Register and Make Your Hotel Reservation now”. The next page will be your registration record, click “continue” at the bottom of the page, and on the next page, click on the “Events” tab and add the Division I Social to your registration.

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Mentoring Committee Update

The Mentoring Committee is once again looking to pair mentees with mentors at the AERA annual meeting. Through the Mentoring Program, junior members of Division I get paired with more senior members to discuss such topics as; career opportunities and research development. At the annual conference, mentors have also provided feedback to mentees on their presentations.

While this program requires very little time of mentors, it is incredibly valuable for mentees!

We currently have mentees eager to engage in this opportunity, but we have yet to identify mentors! To identify yourself as a mentor or a mentee (or both!), please complete this online survey by April 1: <https://collaborate.tuftsctsi.org/redcap/surveys/?s=Bp6wvMCFaW>

Also, as of March 1, Dr. Rebecca Blanchard has made the difficult decision to step down from her leadership role on the Mentoring Committee. Dr. Blanchard will continue to work with me and support the work of the Mentoring Committee, but will no longer serve as co-chair. I want to thank her for her collegiality and expertise in her role as co-chair. Experience, openness, and a passion for seeing others succeed are all important qualities in a mentor, and she has demonstrated each of these in her role. Thank you, Dr. Blanchard!

If you have any questions, or if you would like to get involved with the Mentoring Committee, please do not hesitate to email me directly! (Christina.cestone@drexelmed.edu)

Cheers!

Christina Cestone, PhD

"The greatest good you can do for another is not just to share your riches but to reveal to him his own."
– Benjamin Disraeli

Committee on Diversity and Equity (CoDE) Report

I'm looking forward to meeting so many of you at the annual meeting. Below are some of the sessions related to diversity and equity:

⇒ Sat, April 9, 2:15 to 3:45pm, Environment for Inclusion, Convention Center, Level One, Room 143B

⇒ Tue, April 12, 8:15 to 9:45am, Access to the Professions, Convention Center, Level One, Room 143 B

Mark A. Lopez, Committee on Diversity and Equity (CoDE) Chair



Assessment Community (AC) Report

The goal of the Assessment Community (AC) is to offer Division I members the opportunity to connect with others who have similar research interests in the areas of assessment, including theoretical, empirical, and practical applications. Examples of assessment topics include maintenance of credentials, measuring skills and knowledge, high stakes testing, reliability estimation and validity determination.

Given that the community concept is still relatively new, the goals and objectives of the AC remain a work in progress. However, we have found that generating symposium proposals and linking our newer members with seasoned researchers to be a mechanism for creating community. I have also made a habit of going through the AERA preliminary program and pointing out sessions that might be of interest to members of the AC. For this year's AERA meeting, the following Division I sessions would seem appealing to those with an assessment interest:

Friday April 8

Factors Contributing to Performance Differences of Practicing Physicians in Internal Medicine

Fri, April 8, 2:15 to 3:45pm, Convention Center, Level Two, Exhibit Hall D Section C

Saturday April 9

Assessment Using Multiple-Choice Questions

Sat, April 9, 8:15 to 9:45am, Convention Center, Level One, Room 144 B

Assessment Beyond Multiple-Choice Questions

Sat, April 9, 12:25 to 1:55pm, Convention Center, Level One, Room 143 B

Assessment Issues in Competency-Based Education in the Professions

Sat, April 9, 4:05 to 5:35pm, Convention Center, Level One, Room 143 B

Sunday April 10

Evaluation of Competence in Competency-Based Education

Sun, April 10, 10:35am to 12:05pm, Convention Center, Level One, Room 143 B

Monday April 11

Poster Session 9: Education and Assessment in the Professions

Mon, April 11, 8:15 to 9:45am, Convention Center, Level Two, Exhibit Hall D

- ⇒ **Augmenting Physician Examiner Scoring in Objective Structured Clinical Examinations: A Pilot for Including the Standardized Patient Perspective**

- ⇒ **Evaluation and Validation of the Multiple Mini-Interviews to Select B.Sc. Nursing Student Applicants**
- ⇒ **An Investigation Into the Drilling Performance of Year 1 Dental Undergraduate Students' Clinical Skills Using a Haptic Virtual Dental Simulator**
- ⇒ **Factors Impacting Item Parameter Stability Under the Common-Item Equating to a Calibrated Pool Design**
- ⇒ **Measures of Academic Excellence: Advancing the Profile of Teaching in Medical Education**

Besides Division I, AC members should consider sessions hosted by AERA Division D and various special interest groups (SIG) and the Conference held in parallel by the National Council on Measurement in Education (NCME). One SIG session that would seem to have broad appeal to AC members is:

On the Use and Validity of Tests in the Professions

SIG: Professional Licensure and Certification

Sun, April 10, 8:15 to 9:45am, Convention Center, Level One, Room 142

The NCME has not posted its full program as of the writing of this article. Some SIGs to consider either joining or looking for sessions of interest include: Classroom Assessment (SIG #18), Cognition and Assessment (SIG #167), Educational Statisticians (SIG #37), Professional Licensure and Certification (SIG #80), Survey Research in Education (SIG #123), Test Validity Research and Evaluation (SIG #72)

For the 2017 AERA conference, the AC would like to continue its efforts to sponsor Division I symposia. **We will have a meeting in the Marriott Marquis, Adams Morgan room, Sunday April 10 from 12:30-1:30pm. We will use this meeting to identify topics of interest and link new members with seasoned researchers to pursue these proposals.** If you have an idea for an important concern that relates to assessment and are interested in developing the idea into a viable symposium proposal, please email me at maalbanese@wisc.edu.

We hope to see you all at this year's annual AERA meeting! Our AC welcomes anyone interested in joining our community of practice; please come to our session at 12:30pm on Sunday April 10. You can also meet up with us during Division I's business meeting Saturday evening from 6:15pm until 7:45pm in the Convention Center, Level One, Room 143 B.

Mark Albanese, Assessment Community Chair

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Teaching & Learning Community (TLC) Report

The purpose of the TLC is to offer Division I members the opportunity to connect with others who have similar research interests in the areas of teaching and learning, including theoretical, empirical, and practical applications.

We are all greatly looking forward to meeting in Washington D.C. for the AERA annual meeting. Below I have noted sessions that might be of particular interest to members of the Teaching & Learning Community. **Please note that our community will be holding its annual breakfast meeting in the Marriott Marquis, Gallery Place room on Sunday, April 10th beginning at 7 a.m.** In addition, a few members of our community have begun conversations about launching a community-sponsored project to produce a new edited volume of Educating Professionals. The last volume was published in 1993 and, as we all know, much has happened around teaching and learning issues in the professions since then. **Lynn Curry, who was the first author of the previous volume, and Dorie Evensen, Chair of TLC are willing to serve as editors and invite anyone interested in contributing to this effort to attend an information and brainstorming session on Monday, April 11th from 6 to 7 p.m. in the Marriott Marquis, Adams Morgan room.**

If you are interested in joining our TLC and wish to have your name added to our email list, please contact me at dhd2@psu.edu and I will see to it that you are included in future correspondence.

Sessions of possible interest to TLC members:

Friday, April 8, 2016

12:00 to 1:30pm

Reflection

In Event: Roundtable Session 4, Sub Unit: Division I - Education in the Professions Session Type: Roundtable Session
Convention Center, Level Two, Exhibit Hall D Section D

2:15 to 3:45pm

Expanding Inclusion

In Event: Roundtable Session 9, Sub Unit: Division I - Education in the Professions Session Type: Roundtable Session
Convention Center, Level Two, Exhibit Hall D Section C

Saturday, April 9, 2016

8:15 to 10:15am

Building Professional Expertise for 21st-Century Teaching: The Imperative of Integrating Knowledge About Language Development

Sub Unit: Division I - Education in the Professions, Session Type: Symposium
Convention Center, Level One, Room 143 B

Sunday, April 10, 2016

2:45 to 4:15pm

Expertise and Complex Decision Making

Sub Unit: Division I - Education in the Professions Session Type: Paper Session
Convention Center, Level One, Room 143 B

Monday, April 11, 2016

12:25 to 1:55pm

Technology in Teaching

Sub Unit: Division I - Education in the Professions Session Type: Paper Session
Convention Center, Level One, Room 143 B

2:15 to 3:45pm

Feedback and Self-Evaluations of Performance

Sub Unit: Division I - Education in the Professions Session Type: Paper Session
Convention Center, Level One, Room 143 B

4:05 to 5:35pm

Issues in Faculty Development

Sub Unit: Division I - Education in the Professions Session Type: Paper Session
Convention Center, Level One, Room 143 B

Dorie Evensen, Teaching & Learning Community Chair

dhd2@psu.edu.



Professional Development Community (PDC) Report

Members of the Professional Development Community have been working on an outline to submit a proposal for the AERA Education Research Conference that would lead to dissemination of research that addresses professional development needs and priorities across professions. The proposal is based on a research agenda that has emerged from symposia and meetings that were coordinated by our community. Much of the proposal discussion to date has centered on the role of the organizations (and their respective cultures) in which professionals work, while considering how they facilitate or hinder our professional development efforts, and the degree to which our participants are able to apply what they have learned—both as it relates to teaching, and to their subsequent learning in the work environment. We seek to identify common challenges for faculty developers across the professions, as well as strategies for measuring outcomes, and background requirements for future professional development facilitators. We are interested in collaborating with colleagues in Teacher Education and Postsecondary Education to explore successful strategies for developing programs that meet changing individual and organizational needs, and lead to improvement in professional practice.

The draft proposal will be shared with the leaders of the other Communities to seek their feedback, and to capitalize upon natural areas of overlap between the Communities while fostering potential synergies. Based upon that feedback, a working group will refine the proposal, with the intent of submitting it in October.

We will have an opportunity to further develop these ideas when we meet in Washington. The Professional Development Community will meet for a Breakfast Meeting on Saturday April 9 from 7:00-8:00 am in the Marriott Marquis, Catholic University room. We also look forward to engaging other members of the Division in this discussion at the Business Meeting.

If you have questions, or are interested in joining the Professional Development Community, please contact Kathy Edmondson (kme2@cornell.edu).



Division I Membership Committee Report, Spring 2016

We are counting down the days until winter ends and myself and other AERA members in the Washington, DC area can welcome thousands of education researchers to our lovely city. The 2016 AERA Annual Meeting (April 8-12) #AERA16, is destined to be a very memorable conference. Division I has a lot of engaging and informative sessions planned and some special opportunities for old and new members to come together.

One of our goals at the start of each year is to ensure that everyone renews their AERA and Division I membership. Although our membership numbers are holding steady from a year ago at 506 members, including 128 new members, we are down from our peak back in November 2015, 580 members and 202 new members. Thank you to all who renewed for another year. The goal now is to reach out and encourage the more than 200 individuals who did not renew for the year.

We are setting a goal of topping 600 active members in 2016. We need each of you to help us reach that goal. More details about how we will work to meet this goal will be discussed at the Division I Business Meeting, April 9, 6:15-7:45 p.m.

	March 2015	Nov 2015	March 2016
Total Current Year	506	580 (88 students)	506 (92 students)
New as of calendar year	128	202 (55 students)	128 (53 students)
Active previous year, not yet renewed	211	198	223

The Division I Twitter feed (<http://www.twitter.com/#!/AERADivisionI>) now has 192 followers. The twitter feed is a great place to share ideas and information related to education in the various professions.

The AERA Annual Conference is always a great time to engage potential members in the local area. This year Monica Cuddy, MCuddy@NBME.org, will be leading Division I's Guest Pass Program. We are looking to invite non-AERA members in the Washington, DC area to participate in the conference. As many of you know, DC is the home of many colleges and universities, professional associations, policy agencies and of course the federal government. If you know someone in the DC area who is not an AERA member but would benefit from attending the AERA Annual Meeting and being a part of Division I, please send their name and email address to Monica Cuddy, MCuddy@NBME.org.

Together we make Division I stronger and together we can help the division grow.

See you in DC soon!

Eugene L. Anderson, Membership Committee Chair

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Graduate Student Committee Report

2016 Division I Fireside Chat: Translating Scholarship for the Local and Global Public Forum

Saturday, April 9, 10:35 am to 12:05 pm in the Convention Center, Level One, Room 146B

As graduate students pursue bigger and more complex research endeavors, many may question the utility and impact of their scholarship. For many of us pursuing a career in professional education, the intent and aim for our research is to inevitably shape public policy. Whether it be in academia or the private sector, in a local setting or a global setting, scholarship can have a lasting impact on curriculum, metrics, personnel, and legislation. But how do we maximize the influence of our work? This Fireside Chat will answer these questions—and more—through a panel discussion with several distinguished scholars and practitioners who will share their experiences from their career trajectory.

Panelists:

Mark Albanese, Ph.D., National Conference of Bar Examiners

Eugene L. Anderson, Ph.D., Anderson Policy Consulting

Monica Cuddy, M.A., National Board of Medical Examiners

Lawrence “Hy” Doyle, Ed.D., David Geffen School of Medicine

Danette McKinley, Ph.D., FAIMER

LuAnn Wilkerson, Ed.D., University of Texas-Austin

Division I Graduate Student Mixer

Saturday, April 9, after the Division I business meeting, Location To Be Determined

Graduate students are invited to join Division I for an informal social gathering at the conclusion of the Division I business meeting. This is a great opportunity to network with graduate students from various institutions and at varying stages of their programs. Use the time to learn about opportunities for scholarship, to vent with others who understand your woes, and to share your successes. Established scholars in the Division are extended a special invitation to join us in a mentoring capacity. Your experience, guidance, and encouragement are invaluable to graduate students, and we welcome your continued support at this social event.

Graduate Student Council Fireside Chats & Sessions

Graduate Student Council Orientation to the Annual Meeting

Friday, April 8, at 2:15 in the Convention Center, Level One, Room 140 AB

Graduate students are encouraged to attend Fireside chats hosted by the Graduate Student Council (GSC) and those hosted by other Divisions. A complete schedule of GSC-sponsored events can be found by filtering the online meeting agenda by Committee and choosing Graduate Student Council.

Sessions that may be of particular interest to Division I graduate students:

Division A Fireside Chat: Politics and Power in Community Policing and Community Schooling

Saturday, 8:15 to 9:45am, Convention Center, Level Two, Room 206

Division D Fireside Chat: The Pulchritudinous Potential of Public Data

Saturday, 8:15 to 9:45am, Marriott Marquis, Level Two, Marquis Salon 1

Division J Fireside Chat: Addressing Equitable Student Support Across Marginalized College Student Populations

Saturday, 12:25 to 1:55pm, Convention Center, Level One, Room 146 C

Division L/Graduate Student Council Joint Fireside Chat. Reducing Research Misuse and Disuse:

Taking Scholarship Beyond the Journal to Public Influence

Saturday, 4:05 to 6:05pm, Convention Center, Level One, Room 140 AB

Graduate Student Council Fireside Chat: Fundamentals of Public Scholarship

Monday, 10:35am to 12:05pm, Convention Center, Level One, Room 140 AB

Graduate Student Council Fireside Chat: Get Your Work Published! Advice From Emerging Scholars on the Writing Process

Monday, 2:15 to 3:45pm, Convention Center, Level One, Room 140 AB

Please contact Michael Soh, Division I Senior Graduate Student Representative (mikey.soh@gmail.com) or Sarah McBrien, Division I Junior Graduate Student Representative (sarah.mcbrrien@unmc.edu)



Awards Committee Report



The awards are announced at the Division I Business Meeting during the annual AERA meeting. Division I currently recognizes the following 4 categories of awards:

- ◆ New Investigator Award
- ◆ Established Investigator Award (not given in 2015)
- ◆ Outstanding Publication Award
- ◆ Distinguished Career Award (alternate years)

For both the **New and Established Investigator Awards**, members of those committees attend each presentation and use several criteria including organization, delivery, and responses to audience questions to determine whether both the presentation and the completed paper can be considered a significant scholarly contribution to the Division I program. The papers considered for the award may be presented in any format, whether at the podium, in a roundtable, or through a poster, although the awards have usually been given for paper presentations at the podium.

The **New Investigator Award** is given each year for the best paper by a new investigator. Committee members for 2015 award given at the 2016 Annual Meeting are: Carol Evans, EunMi Park (Chair), Yoon Soo Park, Janet M. Riddle, and Douglas R. Ripkey.

The **Outstanding Publication Award** gives out two separate awards including (1) books and (2) peer-reviewed journal articles/book chapters in alternate years. The committee accepts self-nominated works. The committee reads all materials nominated for the award, and evaluates the work based on contribution to Division I. Committee members for articles and books published in 2015 are: Erika Abner, Maura Borrego, Gretchen Guiton and Bridget O'Brien, Chair.

These awards will be given at the Division I Business Meeting and Reception, Saturday, April 9th, 6:15 to 7:45pm, Convention Center, Level One, Room 143 B . Division I would like to thank all of the committee members for the work that they do in recognition of the accomplishments of Division I. Their support of the program and the Division is invaluable.

Linette Ross (lross@nbme.org) and EunMi Park (epark12@jhmi.edu), Division I Awards Committees Co-Chairs

Don't forget to register online for the Division I Social!

Sunday, April 10th, 6:00—8:00pm

Clyde's of Gallery Place, 707 7th Street NW

(See page 3 for more details)

Call for Book Proposals: Innovation and Change in Professional Education

Series Editor: Wim Gijsselaers, Maastricht University, the Netherlands

Associate Editors: LuAnn Wilkerson, The University of Texas, Austin, USA
Henny Boshuizen, Open University, the Netherlands

Editorial Board:

Eugene L. Anderson, Anderson Policy Consulting, Washington, DC, USA
Hans Gruber, Institute of Educational Science, University of Regensburg, Germany
Rick Milter, Carey Business School, Johns Hopkins University, Baltimore, MD, USA
EunMi Park, JH Swami Institute for International Medical Education, Johns Hopkins University School of Medicine, Baltimore, MD, USA

Aims and Scope

The primary aim of this book series is to provide a platform for exchanging experiences and knowledge about educational innovation and change in professional education and post-secondary education (engineering, law, medicine, management, health sciences, etc.). The series provides an opportunity to publish reviews, issues of general significance to theory development and research in professional education, and critical analysis of professional practice to the enhancement of educational innovation in the professions.

The series promotes publications that deal with pedagogical issues that arise in the context of innovation and change of professional education. It publishes work from leading practitioners in the field, and cutting edge researchers. Each volume is dedicated to a specific theme in professional education, providing a convenient resource of publications dedicated to further development of professional education.

Submit your proposal now!

Send your proposals to the series editor: w.gijsselaers@maastrichtuniversity.nl

Or send them to the publishing editor: astrid.noordermeer@springer.com

For more information visit springer.com/series/6087

**We look forward to receiving your book proposal for
Innovation and Change in Professional Education**

Published in the series:

Optimising New Modes of Assessment - In Search of Qualities and Standards, Edited by M. Segers, F. Dochy and E. Cascallar (vol. 1),
Professional Learning - Gaps and Transitions on the Way from Novice to Expert, Edited by H.P.A. Boshuizen, R. Bromme and H. Gruber (vol. 2)
Successful Science and Engineering Teaching - Theoretical and Learning Perspectives, By C.S. Kalman (vol. 3)
Learning to be Professionals, By G. Dall'Alba (vol. 4)
Elaborating Professionalism – Studies in Practice and Theory, Edited by C. Kanen (vol. 5)
Extraordinary Learning in the Workplace, Edited by J.P. Hafler (vol. 6)
Learning Trajectories, Innovation and Identity for Professional Development, Edited by A. McKee and M. Eraut (vol. 7)
Problem-Based Learning in Clinical Education – The Next Generation, Edited by S. Bridges, C. McGrath and T.L. Whitehill (vol. 8)
Teaching and Learning the European Union, Edited by S. Baroncelli, R. Farneti, I. Horga and S. Vanhoonacker (vol. 9)
Clinical Learning and Teaching Innovations in Nursing - Dedicated Education Units, Edited by K. Edgecombe and M. Bowden (vol. 10)
Faculty Development in the Health Professions – A Focus on Research and Practice, Edited by Y. Steinert (vol. 11)
The Roskilde Model: Problem-Oriented Learning and Project Work, Edited by A. Siig Andersen and S. Heilesen (vol. 12)
Assessing Competence in Professional Performance Across Disciplines and Professions Edited by Paul F. Wimmers and Marcia Mentkowski (vol. 13)
(Publication Forthcoming Spring 2016)



2016 Division I Schedule-at-a-Glance

April 8, Friday	April 9, Saturday	April 10, Sunday	April 11, Monday	April 12, Tuesday
	7:00 to 8:00am Professional Development Community Breakfast Mtg. <i>Marriott Marquis, Catholic Univ</i>	7:00 to 8:00am Teaching & Learning Community Breakfast Mtg. <i>Marriott Marquis, Gallery Place</i>	7:00 to 8:00am Committee on Diversity and Equity Breakfast Mtg. <i>Marriott Marquis, Lev 3, Eastern Market</i>	
	8:15 to 9:45am Assessment Using Multiple-Choice Questions Paper Session <i>Convention Center, Level One, Room 144 B</i> 8:15 to 10:15am Building Professional Expertise for 21st-Century Teaching Symposium <i>Convention Center, Level One, Room 143 B</i>	8:15 to 10:15am Emotions in Medical Education: Causes and Effects Symposium <i>Convention Center, Level One, Room 143 B</i>	8:15 to 9:45am Education and Assessment in the Professions Poster Session <i>Convention Center, Level Two, Exhibit Hall D</i>	8:15 to 9:45am Access to the Professions Paper Session <i>Convention Center, Level One, Room 143 B</i>
	10:35am to 12:05pm Division I Fireside Chat: Translating Scholarship for the Local and Global Public Forum <i>Convention Center, Level One, Room 146 B</i>	10:35am to 12:05pm Evaluation of Competence in Competency-Based Education Paper Session <i>Convention Center, Level One, Room 143 B</i>	10:35am to 12:05pm Embracing the Future, Cherishing the Past Invited Speaker Session <i>Convention Center, Level One, Room 143 B</i>	
12:00 to 1:30pm Professional Identity Reflection Unpacking the "Black Box" of Clinical Preparation of Educators Roundtable Sessions <i>Convention Center, Level Two, Exhibit Hall D Section D</i>	12:25 to 1:55pm Assessment Beyond Multiple-Choice Questions Paper Session <i>Convention Center, Level One, Room 143 B</i> Responsible Conduct and Dissemination of Research on Professional Education Invited Speaker Session <i>Marriott Marquis, Level Three, Chinatown</i>	12:30 to 1:30pm Assessment Community Meeting <i>Marriott Marquis, Adams Morgan Room</i>	12:25 to 1:55pm Technology in Teaching Paper Session <i>Convention Center, Level One, Room 143 B</i>	12:25 to 1:55pm Leadership in the Professions Paper Session <i>Convention Center, Level One, Room 143 B</i>
2:15 to 3:45pm Community Service/ Expanding Inclusion/ Factors Contributing to Performance Differences of Practicing Physicians in Internal Medicine Roundtable Sessions <i>Convention Center, Level Two, Exhibit Hall D Section C</i>	2:15 to 3:45pm Environment for Inclusion Paper Session <i>Convention Center, Level One, Room 143 B</i>	2:45 to 4:15pm Expertise and Complex Decision Making Paper Session <i>Convention Center, Level One, Room 143 B</i>	2:15 to 3:45pm Feedback and Self-Evaluations of Performance Paper Session <i>Convention Center, Level One, Room 143 B</i>	
	4:05 to 5:35pm Assessment Issues in Competency-Based Education in the Professions Symposium <i>Convention Center, Level One, Room 143 B</i>		4:05 to 5:35pm Issues in Faculty Development Paper Session <i>Convention Center, Level One, Room 143 B</i>	

6:15 to 7:45pm
Division I Business Meeting & Reception
Convention Center, Level One, Room 143 B

6:00 to 8:00pm
Division I Social
Clyde's of Gallery Place
707 7th Street NW

Division I Program and Abstracts

Fri, April 8, 12:00 to 1:30pm

Professional Identity

Convention Center, Level Two, Exhibit Hall D Section D

Roundtable Session

Chair: Mary Chandy Vayaliparampil, Institute for Multi-Track Diplomacy

Reflections of Engineering Professionals: Relating Senior-Year Skill Levels to Current Employment

*Glenda Young, Virginia Polytechnic Institute and State University
David Knight, Virginia Polytechnic Institute and State University*

In engineering, various efforts have sought to address students' career readiness by emphasizing technical and non-technical skill development during undergraduate study. Specifically, Engineer of 2020 skills were endorsed to better prepare engineers for the workforce. We use Social Cognitive Career Theory to illustrate how self-perceptions of skills relates to one's choice (or perhaps ability) to work in specific business sector and job functions. Engineering alumni grouped into six unique clusters related to the E2020 skills. Also, unique differences amongst the cluster groupings across business sector, job function, and relation of engineering degree to current employment were found. Findings from this study suggest that engineering alumni may navigate to early career positions that map on to their readiness across these skills.

Domain Identification Model: A New Lens to Study Major and Career Decision-Making Process

Chosang Tendhar, Baylor College of Medicine; Kusum Singh, Virginia Polytechnic Institute and State University; Brett D. Jones, Virginia Polytechnic Institute and State University; Elizabeth G. Creamer, Virginia Polytechnic Institute and State University; Marie Christine Paretti, Virginia Polytechnic Institute and State University

Research over the last six decades resulted in identification of many cognitive and non-cognitive variables that determine students' decisions to join, continue in or switch out of STEM majors. However, the demand-supply gap of STEM professionals has not been fully resolved. The purpose of this study was to investigate the domain identification model as a new lens to study factors related to students' goals intentions. The data for this study was collected from first engineering students enrolled in an introductory engineering course at a research intensive university located in southeastern US. The measurement model and structural model provided a strong fit to the data suggesting domain identification model as a viable option to study students' career decision making process.

Skills That Fit the Bill: Employability Skills That Predict Commitment to Professional Development

*Corintha Price, Dowling College;
Elsa-Sofia Morote, Dowling College*

The purpose of this study is to investigate healthcare information management students and employers, and current employee's assessments of the five employability dimensions of communication, teamwork, information technology, problem-solving, and interpersonal skills. The study evaluates whether we can predict new employee commitment to professional development utilizing those five dimensions. The results of the study revealed that competence in information technology was the strong predictor of new employee commitment to professional development. In contrast, competence in interpersonal skills was revealed by employers to be the strongest predictor of new employee commitment to continuous professional development.

Fri, April 8, 12:00 to 1:30pm

Reflection

Convention Center, Level Two, Exhibit Hall D Section D

Roundtable Session

Chair: Ting Dong, The Uniformed Services University of the Health Sciences

Case-Based Learning and Reflective Thought: Increasing Clinical Diagnostic Reasoning in Physical Therapy Education

Rachel Trommelen; Aryn C. Karpinski, Kent State University - Kent; Sheila W. Chauvin, Louisiana State University - Health Sciences Center New Orleans

The impact of case-based learning (CBL) and reflection activities on Doctor of Physical Therapy (DPT) students' clinical diagnostic thinking using the Diagnostic Thinking Inventory (DTI) was examined. Data (N = 32) were collected from 2nd-year DPT students at three time points across one semester. The results indicated that there were no statistically significant differences between time points 1 and 2 ($p > .05$) before the intervention; however, from time points 2 to 3, there was a statistically significant increase in total and subscale DTI scores ($p < .001$ for all). Evidence from this study shows that the combination of reflection with CBL activities can lead to better clinical diagnostic thinking, which may lead to improved patient outcomes.

Division I Program and Abstracts

From Medical Trainees to Reflective Practitioners: Understanding Teaching and Learning of Reflection in Medical Education

Kuo-Chen Liao, Chang Gung University; Alenoush Saroyan, McGill University; Linda Snell, McGill University; Xihui Wang, McGill University; Chien-Da Huang

This phenomenological study aimed to understand the experiences of medical educators and trainees regarding teaching and learning of reflection in narrative medicine. Six educators and seven trainees were recruited by purposive sampling for individual interviews. Creswell's (2013) analysis was applied. While educators experienced a process of preparation in teaching reflection, trainees experienced taking a haphazard tour with resistance and uncertainty in learning reflection. Writing narratives engaged trainees in role-shifting, making the unnoticed noticed, and composing emotions. Trainees particularly requested a safe learning environment conducive to reflection. The phenomenon illuminated highlights an imperative to create a safe context for effective participation in discourse so that both educators and trainees can move towards a consensual direction of fostering reflection in medical education.

Professionalism in Action: A Technology-Enhanced Approach for Internal Medicine Residents

Cecile M. Foshee, Cleveland Clinic Lerner College of Medicine; Ali Mehdi, Cleveland Clinic; S. Beth Bierer, Cleveland Clinic Lerner College of Medicine; Elias I. Traboulsi, Cleveland Clinic; J. H. Isaacson, Cleveland Clinic Lerner College of Medicine; Abby L. Spencer, Cleveland Clinic; Cassandra Calabrese, Cleveland Clinic; Brian B. Burkey, Cleveland Clinic

Proactive approaches to teaching and exploring professionalism remain deficient in graduate medical education. With a cohort of internal medicine residents and a curriculum emphasizing positive behaviors, empathetic communication, and reflection, we explored the effects of a technology-enhanced learning (TEL) community on professionalism and modification of professional behaviors. Our curriculum systematically integrated face-to-face sessions with collaborative technology into the learning process. We found that 92% of residents engaged with the TEL-community, indicating an appreciation for the process. Our thematic analysis of 82 reflections, suggested that residents found the activities meaningful and espoused a positive attitude towards professionalism. Residents engaged modestly in self-reflection, gained awareness about their professional behavior, and expressed having experienced a positive impact on their empathy and resilience.

Fri, April 8, 12:00 to 1:30pm

Unpacking the "Black Box" of Clinical Preparation of Educators: An Opportunity for Public Scholarship

Convention Center, Level Two, Exhibit Hall D Section D

Roundtable Session

Why is clinical practice a "Black Box" in understanding preparation of educators? What can we learn from study of clinical practice that encompasses preparation of all educators? This session is designed to explore the unexplored aspects of clinical preparation (the 'black box') across three disciplines in order to shed light on 'core pedagogies' and 'core design features' than can impact preparation quality. Considering preparation of all educators – school principals, counselors, and teachers is needed – as together these professionals ultimately impact the nature of the learning environment for pupils. Panel participants who are engaged in a multi-case study into clinical preparation address the knowledge base, new language, and cross-disciplinary understanding that emerged in unpacking their challenges through this inquiry.

Chair: Patricia S. Tate, The George Washington University

Framing a Research Agenda for Study of Clinical Practice in Preparation of Educators

Patricia S. Tate, The George Washington University; Carol A. Kochhar; Ashley Briggs

Educational Administration: Preparation for Addressing the Problems of Practice

Jennifer K. Clayton, The George Washington University; Abebayehu Aemero Tekleselassie, The George Washington University; Ashley Briggs; Kimberly Ruth Jamison, The George Washington University

Discovering the Perceptions Supervisors Have of School Counselor Trainees' Ability to Meet Needs of Diverse Students

Samuel Steen, The George Washington University

Clinical Components of Educator Preparation Programs

Patricia S. Tate, The George Washington University

Division I Program and Abstracts

Fri, April 8, 2:15 to 3:45pm

Community Service

Convention Center, Level Two, Exhibit Hall D Section C

Roundtable Session

Chair: Andrea Gotzmann, Medical Council of Canada

Community Service Participation in Combined Internal Medicine and Pediatrics Residency Programs

Samara Khaliq, University of Virginia; Aryn C. Karpinski, Kent State University - Kent; Kristen E Chighizola, Louisiana State University - Health Sciences Center New Orleans; Betty Lo, Louisiana State University - Health Sciences Center New Orleans; Sheila W. Chauvin, Louisiana State University - Health Sciences Center New Orleans

Community service during residency is not explicitly mandated by the ACGME, but is emphasized in medical training prior to residency. Encouragement to participate in community outreach decreases after medical school with residents struggling to find time and administrative support to volunteer. This study explored resident and faculty member community service involvement in combined Internal Medicine/Pediatrics (Med/Peds) residency programs as reported by Med/Peds Program Directors (N = 34). Results showed that programs were receptive to the value of incorporating service in residency training. Program Directors may consider encouraging and requiring community service as a way to not only develop residents' skills, but also to enhance educational outcomes as residents apply their academic curriculum to the health needs of the underserved community.

Enhancing the Community-Based Practice of a Teacher Education Program to Serve Children From High-Need Communities

Yaoying Xu, Virginia Commonwealth University; Serra De Arment, Virginia Commonwealth University; Mary Ellen Huennkens, Virginia Commonwealth University

The purpose of this paper was to examine the community-based practice of a graduate level preservice teacher education program sponsored by a federally funded grant project. The focus of the paper was a systematic evaluation of 13 course syllabi. Specifically, three components of each syllabus was reviewed and rated using a project-developed evaluation form including the course objectives, readings, and assignments. Six indicators of community-based practice were identified. The evaluation process involved 5 phases consisting of internal and external review of course documents. The results indicated that community-based practice was mentioned in all course syllabi suggesting the importance of community-based practice; however, in-depth understanding of community-based practice was less evident because of the weak connections between learning objectives and assignments.

Promoting Service Orientation in Undergraduate Medical Students Through a Virtual Community Health Center

Lise McCoy, A.T. Still University

Responding to national need to prepare healthcare professionals willing to work with medically underserved populations, our medical school developed a series of interactive, gamified virtual patient training modules designed to provide simulated clinical practice in a community health center context. During the first year of medical school, 107 students bound for service learning participated in orientation to "community oriented primary care" by completing simulated patient encounters in a Virtual Community Health Center (VCHC). After simulation, students completed case debriefs regarding social determinants and community oriented primary care. Open-ended responses were analyzed and coded using grounded theory. Our experience suggests that VCHC cases provide students the opportunity to reflect on humanistic care and community oriented primary care.

Fri, April 8, 2:15 to 3:45pm

Expanding Inclusion

Convention Center, Level Two, Exhibit Hall D Section C

Roundtable Session

Chair; Elaine Renee Klein, University of Washington - Seattle

Factors That Shape the Career-Related Possible Selves of Girls in Science and Medicine

Claire Mitchell; Robert H. Tai, University of Virginia; Donna B. Jeffe, Washington University in St. Louis

This paper uses an interdisciplinary theoretical framework, informed by possible selves theory, to examine the factors that shaped girls' future-oriented career identities in science, medicine, or biomedical research. 118 female participants from diverse racial and ethnic backgrounds who pursued an MD, PhD, or MD-PhD degree in one of the STEM fields participated in interviews focused on their early interest development and experiences along their academic and professional pathways. Findings suggest that early exposure to mentors and experiences that bolster self-confidence played an instrumental role in helping the participants develop and sustain positive views of themselves as future scientists, physicians, or biomedical researchers. These factors can provide valuable contexts through which females negotiate career-related possible selves in science and medicine.

Division I Program and Abstracts

Exploring Barriers That Limit African American and Rural Medical Students From Pursuing Academic Medicine Careers

Annie J. Daniel, Louisiana State University School of Veterinary Medicine; Michael L. Rowland, University of Kentucky College of Medicine; Carol Elam, University of Kentucky College of Medicine

As reported, the U. S. Census projects that by the year 2042 the racial minority will be the majority of the U. S. population. The Pew Research Center reported that white Americans would decrease from 85 percent of the population to 43 percent, while Black and Hispanic Americans will reach 45 percent of the population by 2060.¹ With these statistics in mind, the client base across all health professions, including medicine and veterinary medicine, is changing. Results indicate that African Americans are an untapped resource of students interested in academic medicine as a career, while rural students are less attracted to this area.

A Mixed Methods Approach to Analyzing Dental Students' Expression of Cultural Competence

Linda Behar-Horenstein, University of Florida; Xiaoying Feng, University of Florida; Carol A. Isaac, Mercer University; Barbara Lee, Keiser University; Frank A Catalanotto

Researchers explored patterns of significance in students' reflective writings before and after interviews with individuals unlike themselves. To determine changes in cultural attitudes or beliefs, the Linguistic Inquiry Word Count (LIWC) program and QUAN→qual sequential mixed methods model was used. Seven factors explained 66.49% of the variance. Because of similarity of results to previous study we describe contextual differences. Thematic content of the qualitative data "increase[ed] opportunities for contact" and resulted in students' expressions of change. Based on these findings, experiential learning experiences in real time to relate the concepts of cultural competency and health disparities, rather than delivered through didactic coursework, are recommended. Mixed methods inquiry can inform faculty about the outcomes that may emerge from these efforts.

Fri, April 8, 2:15 to 3:45pm

Factors Contributing to Performance Differences of Practicing Physicians in Internal Medicine

Convention Center, Level Two, Exhibit Hall D Section C

Roundtable Session

The maintenance of certification (MOC) program was developed to ensure that physicians demonstrate competence throughout their career. Part of the MOC program requires physicians to pass a secure cognitive assessment. At the American Board of Internal Medicine (ABIM), physicians must pass the secure exam every ten years (also known as an exam cycle) in order to maintain their board certification. The papers in this session address the comparability of MOC exam performance for examinees from diverse training, such as international medical graduates (IMGs), and practice backgrounds (e.g., working in a solo practice setting). The findings of the papers are informative for test developers to improve exam quality and for medical educators to help examinees successfully pass the MOC exam.

Chair: Stephen Cubbellotti, American Board of Internal Medicine

Comparison of Time Used by U.S. Medical Graduates and International Medical Graduates on Maintenance of Certification Exams Across Multiple Disciplines

Stephen Cubbellotti, American Board of Internal Medicine; Yanling Zhang, American Board of Internal Medicine; Bozhidar M. Bashkov, American Board of Internal Medicine

Factors Influencing Success on Maintenance of Certification of Internal Medicine International Medical Graduates

Yanling Zhang, American Board of Internal Medicine; Stephen Cubbellotti, American Board of Internal Medicine; Bozhidar M. Bashkov, American Board of Internal Medicine

Using Multilevel Item Response Theory to Explain Differential Item Functioning on a Medical Maintenance of Certification Exam

Bozhidar M. Bashkov, American Board of Internal Medicine; Stephen Cubbellotti, American Board of Internal Medicine; Yanling Zhang, American Board of Internal Medicine

Does Changing From Solo to Group Practice Relate to Maintenance of Certification Exam Performance?

Andrew Jones, American Board of Surgery; Brendan J Barnhart, American Board of Internal Medicine

Division I Program and Abstracts

Sat, April 9, 7:00 to 8:00am

Professional Development Community
(PDC)

Breakfast Meeting
*Marriott Marquis,
Catholic University*

Sat, April 9, 8:15 to 9:45am

Assessment Using Multiple-Choice Questions

Convention Center, Level One, Room 144 B

Paper Session

Chair: Louis J. Grosso, American Board of Internal Medicine
Discussant; YoonSoo Park, University of Illinois at Chicago

**Do Items With Paired Response Options Elicit Successful
Guessing Behavior on High-Stakes Licensure Examinations?**

Joanne Kane, National Conference of Bar Examiners; Juan Chen,
National Conference of Bar Examiners; Douglas R. Ripkey,
National Conference of Bar Examiners

We explore whether the item characteristics of four response multiple-choice questions with “paired” (i.e., non-independent) response options differ from those of questions with unpaired response options in an operational licensure exam. We are particularly interested in the effects of response pairing on guessing behavior. Our analyses so far suggest that there are no differences in guessing behavior as a function of response pairing. In the discussion, we explore conditions under which item characteristic differences as a result of response pairing might be more or less likely to be observed and suggest avenues for further research.

**Exploring Knowledge Growth of Medical Subspecialists Using
Latent Curve Modeling**

Ying Du, American Board of Pediatrics; Linda A. Althouse,
American Board of Pediatrics; Rachael Jin Bee Tan, Schroeder
Measurement Technologies, Inc.; Robert Thomas Furter,
American Board of Pediatrics

This study uses latent curve models (LCM) to explore the trajectories of knowledge growth in a medical subspecialty. The LCM uses latent factors to infer existence of unobserved growth trajectories based on sets of observed repeated measures. Three in-training examinations (SITEs) and the certifying (CERT) examination are used as 4 points of repeated measures of medical knowledge. A total of 540 fellows who have taken both the CERT exam and at least one SITE are included in the analysis. Gender, medical school country (American or international), and a general CERT exam performance (GenMeasure) are added to the model as time invariant covariates to explore causal links between linkage of these predictors and changes in SITEs and CERT exams.

**Cognitive Load and Procedural Learning in the Professions:
Instrument Development and Evidence for Validity**

Justin Louis Sewell, University of California - San Francisco;
Christy K Boscardin, University of California - San Francisco;
John Q. Young, Hofstra University - North Shore-LIJ School of
Medicine; Olle ten Cate, University Medical Center Utrecht;
Patricia S. O'Sullivan, University of California - San Francisco

We used cognitive load theory to develop a self-report instrument measuring three types of cognitive load during colonoscopy training. Using a cross-sectional design, we electronically administered the instrument to 1,061 gastroenterology fellows nationwide. We used confirmatory factor analysis to assess statistical fit of a three-factor solution previously specified by exploratory factor analysis. 477 (45.0%) invitees from 154 (95.1%) programs participated, of which 361 contributed to confirmatory factor analysis. Demographics were similar to national data. Confirmatory factor analysis verified a 3-factor model as best fit based on four fit indices. Intrinsic, extraneous, and germane load measurements had high internal consistency (Cronbach's alpha 0.90, 0.87, 0.96 respectively), and correlated as expected with year in training and global assessment of cognitive load.

Division I Program and Abstracts

Sat, April 9, 8:15 to 10:15am

Sat, April 9, 10:35am to 12:05pm

**Building Professional Expertise for 21st-Century Teaching:
The Imperative of Integrating Knowledge About Language
Development**

**Division I Fireside Chat:
Translating Scholarship for the Local and Global Public
Forum**

Convention Center, Level One, Room 143 B

Convention Center, Level One, Room 146 B

Symposium

Invited Speaker Session

Chair: Peggy Mueller, WestEd

Discussant: Jal David Mehta, Harvard University

This symposium addresses the convergence of two critical and challenging needs in public education in the U.S., namely: 1) the development and support of educators as true professionals, and 2) the compelling demand for new knowledge and skill among all teachers concerning the intersection of language development and disciplinary learning and how to support it among all students, in particular English language learners (ELLs). The papers result from the convenings of university and district professional development providers in a large urban system and provide summative and individual findings from their collective explorations about what new professional knowledge is needed, what is required to make the necessary shifts in teaching to support all students, and what professionalization of the work involves.

**A Vision for Professional Knowledge Required to Build
Teachers of English Language Learners in the 21st Century**

Aida Walqui, WestEd

**Apprenticing Educators of English Learners: Linguistically
Responsive Practice in Classrooms, Schools, and Communities**

Amy Jennifer Heineke, Loyola University Chicago;

Kristin Johnson Davin, Loyola University Chicago;

Amanda Roudebush, Loyola University Chicago

**Language, Literacy, and Leadership: Building Teacher and
School Capacity to Deepen All Students' Academic Growth**

Mary Ann Pitcher

**A Sociocultural Professional Development Framework for
Language and Literacy Instruction and the Negotiation of
Knowledge**

Dara Soljaga, Concordia University - Chicago;

Simeon Martin Stumme, Concordia University - Chicago

**Language, Literacy, and Disciplinary Practices: Building Bridges
and Sharing Knowledge**

Julie L. Burnett

Chairs: Michael Soh, University of California - Los Angeles;

*Sarah B. McBrien, Univ. of Nebraska Medical Center & Univ.
of Nebraska-Lincoln*

*Participant: Dortha H. Juul, American Board of Psychiatry and
Neurology, Inc.*

As graduate students pursue bigger and more complex research endeavors, many may question the utility and impact of their scholarship. For many of us pursuing a career in professional education, the intent and aim for our research is to inevitably shape public policy. Whether it be in academia or the private sector, in a local setting or a global setting, scholarship can have a lasting impact on curriculum, metrics, personnel, and legislation. But how do we maximize the influence of our work? This Fireside Chat will answer these questions—and more—through a panel discussion with several distinguished scholars and practitioners who will share their experiences from their career trajectory.

Speakers:

LuAnn Wilkerson, The University of Texas - Austin

Lawrence "Hy" Doyle, David Geffen School of Medicine

Eugene L. Anderson

**Danette Waller McKinley, Foundation for Advancement of
International Medical Education and Research**

Monica M. Cuddy, National Board of Medical Examiners

Mark A. Albanese, National Conference of Bar Examiners

Division I Program and Abstracts

Sat, April 9, 12:25 to 1:55pm

Assessment Beyond Multiple-Choice Questions

Convention Center, Level One, Room 143 B

Paper Session

Chair: Sarah B. McBrien, Univ. of Nebraska Medical Center & Univ. of Nebraska-Lincoln

Discussant: Hugh A. Stoddard, Emory University

Examining the Predictive Validity of a Preclerkship Portfolio Assessment of Medical Students

Celia O'Brien, Northwestern University; Marianne Green, Northwestern University

A portfolio-based assessment system was created at one medical school to supplement the graded curriculum and to measure and develop behavioral competencies such as communication, professionalism and teamwork in students. A pre-clerkship portfolio review assesses competency in these areas. In this study, the authors examine whether the results this review are predictive of clerkship grades after controlling for test performance (USMLE Step 1 score). Multiple linear regressions were used to analyze associations between portfolio review results and mean clerkship grades. The results indicate that pre-clerkship behavioral skills were significant predictors of clerkship performance, even after controlling for exam scores. This study adds to the literature by providing evidence that a portfolio is a valid way to assess behavioral competencies.

The Assessment of Identifying Pathology in Cadaveric Organs in Medical and Nursing Students

Aryn C. Karpinski, Kent State University - Kent; Guenevere Rae, Louisiana State University - Health Sciences Center New Orleans; Robin R. McGoey, Louisiana State University - Health Sciences Center New Orleans; R. John Cork, Louisiana State University - Health Sciences Center New Orleans; William Swartz, Louisiana State University - Health Sciences Center New Orleans

This study examined the impact of a pathology guide on student performance in identifying pathologic lesions compared to traditional learning resources (e.g., texts, atlases). The pathology guide was constructed to assist students in the health professions identify pathologic lesions during dissection in the gross anatomy laboratory. First-year medical and nursing students were assessed, as they are required to study gross anatomy and pathology. In both samples, differences in pathology identification were found between those who used the pathology guide versus the traditional resource, and between the organs examined during the assessment (i.e., heart, lung, kidney). These results suggest that the pathology guide may be a valuable educational tool in the gross anatomy laboratory for students in the health professions.

Outcomes Assessment Methods for Interprofessional Education Involving Medical and Physical Therapy Participants: A Systematic Review

Raine Osborne, Brooks Institute of Higher Learning; Daniel Dinsmore, University of North Florida

A major aim of current health care reform is increased collaboration among health care providers from various professions. Interprofessional education (IPE) is one strategy thought to increase collaborative practice. The majority of IPE studies have focused on medicine and nursing, and have involved students during their professional training. More recently, IPE investigations have included physical therapy (PT) students. However, comparisons among these studies is challenging due to heterogeneity among the assessment methods used in these studies. To better understand the current state of the IPE literature, specifically studies involving PT and medical participants, this systematic review investigates the methods investigators used to assess outcomes, at which level on Barr's typology, and at what stage of the learners' professional training.

Sat, April 9, 12:25 to 1:55pm

Responsible Conduct and Dissemination of Research on Professional Education

Marriott Marquis, Level Three, Chinatown

Invited Speaker Session

Chair: Danette Waller McKinley, Foundation for Advancement of International Medical Education and Research

Much of the research on the education of professionals (e.g., attorneys, engineers, health providers) has focused on determining what is needed to ensure that the "competent" professionals are graduated from their respective schools. There are many theories and findings regarding how this goal can be accomplished. As Division I celebrates 45 years of this work, it is important to consider how we can encourage the responsible conduct of research - identifying and disseminating relevant and salient issues and protecting study participants. In addition, consideration of the institutional environment is important. The goal of this session is to provide Division members with guidance on the responsible conduct and dissemination of research that has the greatest potential to impact the field.

Speakers:

Kevin W. Eva, McMaster University

Carol R. Thrush, University of Arkansas for Medical Sciences

Toby Schonfeld, Environmental Protection Agency

Division I Program and Abstracts

Sat, April 9, 2:15 to 3:45pm

Environment for Inclusion

Convention Center, Level One, Room 143 B

Paper Session

Chair: Katherine Picho, University of Connecticut

Discussant: Patricia S. O'Sullivan, University of California - San Francisco

Learning to Fly Together: A Sociomaterial Study of Interprofessional Patient Care

Lisa Y. Faden, University of Western Ontario; Kathryn M. Hibbert, University of Western Ontario; Sandra DeLuca, Fanshawe College; Noureen Huda; Mark Goldszmidt

Using sociomaterial theory, we seek to understand how the materialities of practice in a hospital setting (e.g., professionals, bodies, routines, instruments, protocols, technologies) act together to either produce or fail to produce quality patient care. How do material phenomena become interlaced in practice, and how do they affect learning and action? We offer an answer to this question through the story of one patient, Grace, and the team of care providers who cared for her during her hospital admission. Our narrative inquiry approach to presenting the data makes visible the different disciplinary knowledges and practices at play. Understanding the tangled network of materials and the knowledges that they circulate about patients is critical for improving interprofessional collaboration.

Restoring What Microaggressions Diminish: The Role of Peer Networks in Faculty Participation and Agency

Kerry Ann O' Meara, University of Maryland - College Park; Lindsey Lee Templeton, University of Maryland - College Park; Gudrun Nyunt, University of Maryland - College Park

Gendered, racialized and rankist work environments cause tenure-track women, under-represented minority, and non-tenure track faculty to feel diminished and have their legitimacy questioned. Grounded in an understanding of micro-aggressions, legitimacy within organizations, and agency in career advancement, this study uses data from faculty peer networks, including participant observations, program evaluations and interviews, to better understand the experience of being diminished by others underestimating expertise, feelings of isolation, and silencing. Furthermore, this study looks at how participation in peer networks can assist faculty within each group to "transgress" micro-aggressions and find allies, peer recognition, and legitimacy within these spaces, thus disrupting negative work environments and assisting in the development of agency in career advancement.

Culturally Inclusive Nursing Care: How Can Higher Education Contribute to Quality Practice in the Profession?

Karen Joy Trimmer, University of Southern Queensland; Natalie Goldman, Royal Flying Doctor Service

When a nurse cares for a patient there are expectations by both parties, not only for treatment and management of health but also interpersonal and social needs. For every person there are differences in values, belief systems and cultural practices. Individual nurses vary in how they contextually construct and negotiate care, and not all accommodate or even perceive the presence of cultural differences. The cultural needs of Indigenous people and ethnic groups have not been at the forefront of care in Western countries, including Australia and America. This paper considers how nurses learn to know and see differences in individuals, how cultural insight impacts on quality care, and how higher education providers might develop quality professional practice in this area.

Exploring the Gender Gap in American Medical Deanships

Elizabeth J Humberstone, Johns Hopkins University

To investigate the large gender gap in deanships at U.S. medical colleges, female Deans were interviewed about the barriers facing women advancing towards deanships. Four main themes emerged during the interviews: (1) the role of relationships in personal and career development, (2) leadership skills and training, (3) barriers between women and leadership advancement, and (4) recommendations to help alleviate these hindrances. The Deans identified lack of mentorship, family responsibilities, the culture of medical colleges and the varied goals of women faculty as contributing factors to the current gender gap. Recommendations from this study include allocating resources and mentorship to career flexibility and faculty development, updating the criteria for deanships, and restructuring search committees.

Division I Program and Abstracts

Sat, April 9, 4:05 to 5:35pm

Assessment Issues in Competency-Based Education in the Professions

Convention Center, Level One, Room 143 B

Symposium

Chair: Monica M. Cuddy, National Board of Medical Examiners
Discussant: Lynn Curry, Curry Corporation

Competency-based education focuses on ensuring that students learn various skills thought to be essential for the successful practice of a profession. Such an emphasis on competencies requires the development of new approaches to teaching and assessment. Within medical education, notions about how best to teach and assess physicians within a competency framework abound. Performance-based assessments provide one mechanism for evaluating various clinical skills, yet scoring such assessments is complex. This symposium includes four papers that explore the use of various types of assessments in the context of competency-based curricula within the field of medicine. While the papers included in this symposium focus on medicine, the substantive educational issues explored and methodological approaches employed remain broadly relevant for other professions.

Is Programmatic Assessment a Practically Useful Theory of Assessment in Competency-Based Education?

Marjan Govaerts, Maastricht University

Two Personal Factors of Surgical Residents Affecting Metacognitive Competency

Eunmi Park, Johns Hopkins University

Comparison of Automated Scoring Algorithms Developed for a Patient Management Assessment by Independent Groups of Practicing Physicians

Ulana A. Luciw-Dubas, National Board of Medical Examiners

Evaluating Linking Errors for a Large-Scale High-Stakes Clinical Skills Licensing Exam

Fang Tian, Medical Council of Canada

Sat, April 9, 6:15 to 7:45pm

Division I Business Meeting & Reception

Convention Center,
Level One, Room 143 B

Sun, April 10, 7:00 to 8:00am

Teaching & Learning Community (TLC)

Breakfast Meeting

Marriott Marquis,
Gallery Place

Sun, April 10, 8:15 to 10:15am

Emotions in Medical Education: Causes and Effects

Convention Center, Level One, Room 143 B

Symposium

Chair: Anthony R. Artino, Uniformed Services University of the Health Sciences

Discussant: Sebastian Uijtdehaage, Uniformed Services University of the Health Sciences

Every day, physicians-in-training experience emotions. These emotions have various causes, and they can have just as many consequences, some beneficial and some not. Given how commonplace emotions are in medical education, it is surprising that the study of emotion has received only limited attention in the medical education literature. The purpose of this symposium is to introduce the audience to several empirical studies that explore the causes and effects of emotions in medical education. To achieve this purpose, a diverse group of international scholars will present their research, which employs a variety of theoretical and methodological perspectives on emotions. The goal of the session is to achieve a better shared understanding of the complex processes associated with emotions in medical education.

Mapping Emotions to Appraisals and Performance in Authentic Medical Learning Environments

Melissa Duffy, McGill University; Susanne P. Lajoie, McGill University; Reinhard Pekrun, University of Munich; Kevin Lachapelle, McGill University

Division I Program and Abstracts

Exploring the Relationship Between Achievement Goals and Concurrent Emotions Experienced Within a Technology-Rich Learning Environment

Susanne P. Lajoie, McGill University; Amanda Jarrell, McGill University; Jason Matthew Harley, University of Alberta; Melissa Duffy, McGill University; Maher Chaouachi; Tara Tressel, McGill University; Tenzin Doleck, McGill University; Maedeh Assadat Kazemitabar, McGill University; Jeffrey Wiseman, McGill University

Epistemic Emotions in Medical Education

Elisabeth Meier, University of Munich; Karsten Stegmann, University of Munich; Reinhard Pekrun, University of Munich

Video-Based, Worked-Out Examples in Medical Education: Effects of Model Features on Anxiety and Communication Skills

Karsten Stegmann, University of Munich; Lena Hofmann; Frank Fischer, Ludwig Maximilian University of Munich; Matthias Siebeck

Understanding the Antecedents and Effects of Acute Stress in Complex Medical Settings

Vicki R LeBlanc

Sun, April 10, 10:35am to 12:05pm

Evaluation of Competence in Competency-Based Education

Convention Center, Level One, Room 143 B

Paper Session

Chair: Bridget Colleen O'Brien, University of California - SF
Discussant: Trudie Elizabeth Roberts, University of Leeds

Determining Student Competency in Field Placements: An Emerging Theoretical Model

Twyla L. Salm, University of Regina; Randy Johner; Florence Luhanga

This paper describes a qualitative case study that explores how field advisors representing three human service professions of Education, Social and Nursing determine the success (or not) of pre-service students who are struggling to meet minimum competencies in field placements. Five themes emerged from twenty-three interviews with field advisors who evaluated practicum students who had struggled or failed field placements. A theoretical model derived from the findings provides a heuristic to understand themes related to professional competency, professional suitability, accountability to the professional program and accountability to the profession. The final theme, the illuminates three dimensions related to connectivity/relationship that influence various components of the teacher student relationship dynamics.

Using a Competency-Based Achievement System for Practice-Ready Assessment of Internationally Trained Physicians in Canada

Fang Tian, Medical Council of Canada; Marguerite Roy, Medical Council of Canada; Cindy Streefkerk, Medical Council of Canada; Andre F. De Champlain, Medical Council of Canada; Erin Anderson, College of Physicians & Surgeons of Alberta; Helen Cuddihy, College of Physicians and Surgeons of Alberta

The purpose of this study was to examine the effectiveness of using a Competency-based Achievement System (CBAS) (a formative tool) in the practice ready assessment (PRA) of internationally-trained physicians seeking licensure to practice in Canada (summative assessment). The study was a retrospective analysis of over 5,000 FieldNotes completed for 68 candidates in a PRA program. The results indicate that CBAS is a useful tool for PRA. It provides a framework for integrating assessments of clinical competencies and documenting assessment evidence based on direct observations of candidate's performance in multiple clinical settings, case discussions, chart reviews and informal feedback from various sources to support summative decision-making as well as providing formative feedback to candidates to facilitate their professional development.

Tracing Prevalence of Assessment Concepts: What We Need to Know for the Competency-Based Medical Education Movement

Saad Chahine, University of Western Ontario

The Competency Based Medical Education (CBME) movement is poised to reshape training programs, yet its impact will be limited unless assessment practices change. This systematic review highlights three concepts that need to be addressed. The first relates to the capability of assessment to capture observable professional activities. The second highlights that successful milestone achievement requires the use of competences that are conceptually interdependent. Thirdly there is a developmental progression in how trainees advance from one stage to the next. Citation analytic techniques were used in tracing the prevalence of original and secondary works of the concepts in Health Professions journals. The review shows a lag in uptake of new knowledge that is critical for many institutions to enact CBME.

Contributing to Guidelines on the Use of Competency Evaluations in Health Professions Education

YoonSoo Park, University of Illinois at Chicago; Fred Zar, University of Illinois at Chicago; John J. Norcini, Foundation for Advancement of International Medical Education and Research; Ara Tekian, University of Illinois at Chicago

In the health professions, competency evaluations have surfaced as a potentially useful assessment method. This paper examines validity evidence for competency evaluations that can contribute to developing guidelines. Data for 2,701 end-of-rotation evaluations measuring milestones for 142 residents were analyzed. Generalizability analysis and higher-order confirmatory

Division I Program and Abstracts

factor analysis were used to examine the internal structure of ratings. Psychometric implications for combining evaluations scores using composite score reliability were examined. Guidelines for rotation evaluations proposed in this study provide useful solutions that can help Program Directors make decisions on resident progress and contribute to assessment systems in graduate medical education. Broad implications for translating findings to professions education are discussed.

Sun, April 10, 12:30 to 1:30pm

Assessment Community (AC)

Meeting

**Marriott Marquis,
Adams Morgan**

Sun, April 10, 2:45 to 4:15pm

Expertise and Complex Decision Making

Convention Center, Level One, Room 143 B

Paper Session

Chair: Anthony R. Artino, Uniformed Services University of the Health Sciences

Discussant: Jeroen J.G. Van Merriënboer, Maastricht University

Process Modeling: A Structured Approach to Assessing Complex Decision Making

*Robert J. Cook, American Board of Internal Medicine;
Steven J. Durning, The Uniformed Services University of the Health Sciences*

In an effort to better align item development to goals of assessing higher-order tasks and decision making as well as to principled assessment frameworks like Evidence Centered Design and Assessment Engineering, complex decision trees were developed to follow clinical reasoning scripts and used as models on which multiple-choice questions could be built. Development of one such model within the field of Internal Medicine and an item based on the model are demonstrated, walking through the item development process step-by-step. The result is an approach

applicable to any assessment involving complex decision-making and could be used to inform the entire test development process from construct development to automated item generation.

Preventing the Covering up of Errors: Designing Professional Work Environments for Learning From Error

Therese Grohnert, Maastricht University; Roger Meuwissen, Maastricht University; Wim H. Gijsselaers, Maastricht University

Errors happen – but in many organizations making an error is associated with notions of poor ability and blame - powerful incentives for covering up errors (e.g. Tucker & Edmondson, 2003). However, when errors are covered up, learning is obstructed (e.g. Rybowski et al., 1999). In this study, we investigate the influence of the work environment on young professionals' tendency to cover up an error. We find that both an organization's learning from error climate (Putz, Schilling & Kluge, 2012) and the ability to turn to colleagues for help in order to learn (van der Rijt et al., 2013) can effectively prevent the covering up of errors.

How Engineering Experts Solve Complex Transport Problems: Findings to Influence Engineering Education and Student Innovation

Stephanie Rivale, University of Colorado; Kenneth R. Diller, The University of Texas - Austin

This study compares engineering expert problem-solving on a highly constrained routine problem and an ill-defined complex problem. The participants (n=7) were recruited from two large public Research I institutions. Using a think aloud methodology, the experts solved both routine and non-routine problems. The protocols were transcribed and coded in Atlas.ti. The first round of coding followed a grounded theory methodology. Additional rounds of coding were informed by previous problem solving studies in math and engineering. In general, this study confirmed the 5 Step Problem Solving Method used in previous challenged based instruction studies. These results are discussed in terms of their implications for improving undergraduate engineering education.

Does Cognitive Expertise in Design Exist? Implications for Design Education

Sarah Urquhart, Utah State University; Joana Franco, Utah State University

Design education exists to prepare students for design practice. Yet the goal state, design expertise, remains poorly defined. This paper presents a critical cross disciplinary literature synthesizing literature across design, engineering, expertise, creativity, and new evidence from a cognitive task analysis of expert designers to explore critical issues of design expertise. Implications for design education are also explored.

Division I Program and Abstracts

**Sun, April 10,
6:00 to 8:00pm**

**Division I Social
Clyde's of Gallery
Place**

707 7th Street NW

**(See page 3 for
more details!)**

Mon, April 11, 8:15 to 9:45am

Education and Assessment in the Professions

Convention Center, Level Two, Exhibit Hall D

Poster Session

Augmenting Physician Examiner Scoring in Objective Structured Clinical Examinations: A Pilot for Including the Standardized Patient Perspective

*Marguerite Roy, Medical Council of Canada;
Josée Wojcik; Ilona E. Bartman, Medical Council of Canada;
Sydney M. Smee, Medical Council of Canada*

Assessing Student Development and Preparation in a Pretrip Study Abroad Course in Engineering

Timothy J Kinoshita, Virginia Polytechnic Institute and State University; David Knight, Virginia Polytechnic Institute and State University; Andrea M. Ogilvie, P.E., Virginia Polytechnic Institute and State University; Stephanie G Adams, Virginia Polytechnic Institute and State University

Intrinsic Motivation Conversion in Preservice Teachers

*Francena Fatima Lavosha Turner, University of Illinois at Urbana-Champaign; Judith A. Sunderman, University of Illinois;
Yoon K. Pak, University of Illinois at Urbana-Champaign*

Relationships Between Teacher Basic Need Satisfaction and Teaching Innovational Behavior in China

Li Wang, Beijing Normal University; Yonghong Cai, Beijing Normal University; Xiaoyue Shen, Zhejiang Normal University; Jin Cai

Peer Placements in Early Childhood Classrooms: A Collaborative Model for Preservice Teachers

*Kathryn Ann Ohle, University of Alaska Anchorage;
Hattie Harvey, The University of Alaska - Anchorage*

Evaluation and Validation of the Multiple Mini-Interviews to Select B.Sc. Nursing Student Applicants

Ann Ooms, Kingston University and St. George's University of London; Julia Gale, Kingston University and St. George's University of London; Robert Grant, Kingston University and St George's University of London; Chris Paget, Kingston University and St George's University of London

An Investigation Into the Drilling Performance of Year 1 Dental Undergraduate Students' Clinical Skills Using a Haptic Virtual Dental Simulator

Margaret Josephine Cox, King's College London; Barry Quinn, Kings College, London; Sama Ria, King College London; Arash Shahriari-Rad, King College London; Jonathan P. San Diego, King's College London; Mark Woolford, King's College London; Ali Bakir, Barts and the London School of Medicine and Dentistry

Effects of a University-School District Teacher Induction Partnership on Retention and Use of Action Research

C. Bobbi Hansen, University of San Diego; Sandy Buczynski, University of San Diego

Using Comparative Measures of Cultural and Ethical Competence to Guide Dental Education

Linda Behar-Horenstein, University of Florida; Cyndi W. Garvan, University of Florida

Factors Impacting Item Parameter Stability Under the Common-Item Equating to a Calibrated Pool Design

Juan Chen, National Conference of Bar Examiners; Joanne Kane, National Conference of Bar Examiners

Measures of Academic Excellence: Advancing the Profile of Teaching in Medical Education

*Trudie Elizabeth Roberts, University of Leeds;
Katharine Boursicot, Health Professional Assessment Consultancy; David Wilkinson, Macquarie University; R. M. Harden, University of Dundee*

How Much Content Knowledge Do Graduating Medical Students Retain From Their Preclinical and Clinical Courses?

*Kenneth Royal, North Carolina State University;
Mari-Wells Hedgpeth, North Carolina State University;
Debra Bynum, University of North Carolina - Chapel Hill;
Cristin Colford, University of North Carolina - Chapel Hill*

Division I Program and Abstracts

Mon, April 11, 10:35am to 12:05pm

Embracing the Future, Cherishing the Past

Convention Center, Level One, Room 143 B

Invited Speaker Session

This year, the American Educational Research Association celebrates its Centennial, and Division I celebrates its 45 year anniversary. In this invited session, Division I leaders are asked to speak about what is next for the Division. What new directions do Division I leaders envision regarding research on the education of professionals?

Speakers:

Ilene B. Harris, University of Illinois at Chicago

Patricia S. O'Sullivan, University of California - San Francisco

Ara Tekian, University of Illinois at Chicago

LuAnn Wilkerson, The University of Texas - Austin

Mon, April 11, 12:25 to 1:55pm

Technology in Teaching

Convention Center, Level One, Room 143 B

Paper Session

Chair: Elaine Munthe, University of Stavanger

Discussant: Sheila R. Vaidya, Drexel University

Teaching the Next Generation of Physicians: Technology Challenges and Recommendations for Medical Educators

Bernard R. Robin, University of Houston; Sara G. Mcneil, University of Houston

This qualitative research study addressed the question: "What technology skills do medical educators need to train the next generation of physicians?" To answer this question, focus group of medical educators at an international faculty development conference developed recommendations that academic health leaders might use to address the challenges facing medical education. These recommendations include: 1. use technology to provide/support experiences for learners that are not otherwise possible; 2. focus on fundamental principles of teaching and learning rather than learning specific technologies in isolation; 3. allocate a variety of resources to support the appropriate use of instructional technologies; 4. support and recognize faculty members as they adopt new technologies; and 5. foster collaboration in order to share resources and ideas.

Can Technology Remediate Cognitive Style Deficits? A Study of Field Dependence/Independence in Air Traffic Control Training

Richard N. Van Eck, University of North Dakota; Hongxia Fu, Arizona State University; Paul Drechsel, University of North Dakota

Conventional wisdom suggests that visual processing abilities are innate and stable. Research such as the Flynn Effect (the documented increase in scores of the visual pattern recognition test Ravens Progressive Matrices, or RPM) has begun to cast doubt on this assumption. Some theorists suggest that technology exposure may be improving visual pattern recognition within and across generations, which suggest that other visual pattern recognition constructs such as field-dependence/independence (FD-I) might also be affected. FD-I is highly correlated with academic success, but is thought to be stable. Two studies examined the effects of technology exposure on FD-I in air traffic control (ATC) students. Findings suggest that exposure to ATC training, including immersion in a 360-degree ATC tower simulator, may promote field-independence.

Using Educational Data-Mining Techniques to Identify Medical Student Misconceptions in a Virtual Patient Environment

Eric G. Poitras, University of Utah; Laura Naismith, University Health Network; Tenzin Doleck, McGill University; Susanne P. Lajoie, McGill University

This study aimed to discover misconceptions in medical diagnostic reasoning by mining user interactions in MedU, a web-based learning environment with virtual patient cases. Data from 13,000 attempts at a single case were extracted from the MedU database. A subgroup discovery method was applied to discover patterns in learner-generated annotations and answers to multiple-choice items pertaining to the diagnosis and management of acute myocardial infarction (heart attack). A two-step supervised approach was found to significantly increase prediction precision, uncovering four common misconceptions at a rate greater than 70%. These findings inform the design of an adaptive system that tailors the delivery of formative feedback to address the specific needs of learners who exhibit different misconceptions in medical diagnostic reasoning.

Is There a Platform for That? Exploring Online Platforms to Deliver Formal Transformative Professional Development

Deb Carter, The University of British Columbia - Okanagan; Susan E. Crichton, The University of British Columbia

Curriculum designers and online developers implement research-informed design/development principles grounded in adult learning principles across various platforms. Do these same principles apply when the content of a formal professional development (PD) curriculum includes the potential to fundamentally change personal perspective, daily interactions, and ultimately, the profession's best practices? This study explores the usability of two online platforms to deliver a mindfulness

Division I Program and Abstracts

curriculum including meditative awareness practices (MAPs). The objectives include determining a usability instrument, mapping the functionality of two online platforms to the curricular objectives, moving the content to both platforms, and using the usability instrument to analyze the results. The findings provide an initial framework to compare/contrast future migrations of transformative PD from traditional face-to-face to online delivery.

Mon, April 11, 2:15 to 3:45pm

Feedback and Self-Evaluations of Performance

Convention Center, Level One, Room 143 B

Paper Session

Chair: Lara Varpio, Uniformed Services University of the Health Sciences

Discussant: Timothy J. Cleary, Rutgers University

Relationship Between Performance on National Board of Medical Examiners Clinical Science Mastery Series Self-Assessments and Clinical Science Subject Examinations

Carol A. Morrison, Laurel A. Sample, Linette P. Ross, Charisse Smith, Aggie Butler, National Board of Medical Examiners

This study examined the relationship between performance on the NBME® Clinical Science Mastery Series (CSMS) self-assessments and performance on the corresponding clinical science subject examinations for students from United States and Canadian medical schools who took a CSMS self-assessment under standard- or self-paced conditions. Based on linear regression analyses, CSMS scores explained 29%-44% of the variation in first subject examination scores when taken in standard-paced mode and 25%-33% when taken in self-paced mode; the relationship was somewhat different for the two pacing groups as indicated by statistically different sets of regression parameters for the models based on each group. Results confirm that performance on the CSMS self-assessments is related to performance on the clinical science subject examinations.

Supporting Third-Year Medical Students' Skill Acquisition, Self-Efficacy, and Self-Regulation With Modeling and Feedback During Laparoscopic Simulation

Douglas F. Kauffman, Boston University School of Medicine; Michael S Dempsey, Boston University; Nicole Kissane-Lee, Boston University School of Medicine

Third-year medical students participating in surgical simulation learning observed either a coping model, a mastery model, or no model at all, and were given either process feedback, outcome

feedback, or no feedback. The purpose of the study was to examine how model and feedback types affect medical students' skill acquisition, self-regulation, and self-efficacy. Students exhibited significant differences in self-efficacy. There was a main effect for feedback. Students who received process feedback were more self-efficacious. Students who received process feedback along with a coping model had higher self-efficacy than students who did not receive this treatment. Moreover, students who received process feedback and coping models scored higher on the follow-up post-test and reported that they spent significantly longer time practicing independently.

Diagnostic Feedback to Improve Calibration Accuracy of Medical Specialists and Students

Marloes Lisanne Nederhand, Erasmus University Rotterdam; Huib Tabbers, Erasmus University; Ted A.W. Splinter, Erasmus MC; Remigius M. Rikers, University College Roosevelt

Research shows that medical doctors have difficulties to provide accurate estimates of their own performance. Miscalibration can lead to inefficient or ineffective treatment, high health care costs, and most importantly, can harm patients. We therefore investigated whether calibration accuracy can be improved by providing feedback. During a training phase, medical specialists (n=42) and medical students (n=43) diagnosed clinical cases and rated their own performance, after which they did or did not receive feedback (i.e., the correct diagnosis). During the test phase, participants diagnosed new cases and rated their performance without receiving feedback. Findings indicate that medical specialists calibrated better than medical students and providing feedback was associated with better calibration for both students and specialists.

Be(com)ing (Over)Confident? The Role of Task Experience and Gender in Attitudinal and Cognitive Overconfidence

Therese Grohnert, Maastricht University; Roger Meuwissen, Maastricht University; Wim H. Gijsselaers, Maastricht University

Overconfidence, an inflated opinion of one's ability or performance (Moore & Healy, 2008; Berner & Graber, 2008), is a key challenge to organizations that rely on their professionals' judgments. To better understand - and overcome - overconfidence, it is important to consider the roots of this phenomenon. In this study we look at how task experience (e.g. Zacharakis & Shepherd, 2011), and gender (e.g. Hardies, Breesch & Branson, 2011, 2013) are related to two separate forms of overconfidence: trait and state overconfidence (Berner & Graber, 2008). We test these relationships in a professional setting using a representative task, adding to prior studies using general knowledge tasks and / or student samples (Moore & Healy, 2008).

Division I Program and Abstracts

Mon, April 11, 4:05 to 5:35pm

Issues in Faculty Development

Convention Center, Level One, Room 143 B

Paper Session

Chair: Janet M. Riddle, University of Illinois at Chicago

Teachers' Design of Recall and Inference Assessment Items After Online Professional Development

Katherine L. McEldoon, YouScience; Matthew Lancaster; Glenda Simonton Stump, Self-employed; Seokmin Kang, Wisconsin Center for Education Research; Michelene T.H. Chi, Arizona State University

Teachers (N = 70) participated in online professional development that instructed them on assessment writing. A subset (N=13) teachers later developed lessons based on the PD, and labeled their assessments as recall or inference. Assessments were analyzed in two rounds of coding to evaluate labeling accuracy. Teachers were only moderately accurate at labeling their own assessment items (73.5%), despite explicit instruction. Importantly, teachers were more likely to label recall items as inference. This suggests teachers overestimate depth of thought required, and many inference items were not high quality. PD performance was correlated with labeling accuracy. Results suggest that teachers may require support in transferring knowledge gained within PD to their practice. Recommendations for future PD on assessment are discussed.

Basic Science Teaching by Clinician Educators: Insights From Students and Implications for Faculty Development

Sandra J. Kemp, Lee Kong Chian School of Medicine, Nanyang Technological University; Katharine Boursicot, Health Professional Assessment Consultancy; Patricia S. O'Sullivan, University of California - San Francisco

This study explored the premises of benefit to the medical student when educators with a medical degree (clinician educators) are present in classroom-based teaching, through the lens of the student. Situated learning theories provided a way to interpret student learning of cognitive and metacognitive skills from clinician educators. Two cohorts of students provided comments about teaching in their basic science courses. Themes related to effective teaching specific to clinical expertise were generated from the data. Findings illuminated how it is beneficial for clinician educators to model their cognitive processes and set scope for learning for students. The implications for course directors are to provide faculty development which develops clinician educators' skills in making clinical reasoning transparent to students.

Study of Problem-Based Learning Instructors' Pedagogic Beliefs: A Pilot Study

HsingChi von Bergmann, The University of British Columbia; Judith Marianne Walker, The University of British Columbia; Kirsten Dalrymple, Imperial College London; Charles F Shuler, The University of British Columbia

The purpose of this pilot study was to explore the development of a robust method to comparatively explore the ontological and epistemological views of Problem-based Learning (PBL) instructors across various dental programs, and how their views may influence instructional practices. Survey and focus group were used to collect data. The findings of our pilot study, revealed disconnect between instructors' reported views of knowledge and pedagogy. Such dissonance between beliefs about knowledge and pedagogical practice may impede the implementation of a curriculum based on PBL pedagogy. We conclude that (i) the degree of tolerance toward uncertainty in knowledge, and (ii) the perception toward one's own profession could form the basis of a large-scale, comparative epistemological and ontological study of dental PBL-instructors.

Improvisation in Educator Development: Facilitator Learning and Program Creation

Nicole Annette Buras, Waubensee Community College

The purpose of this study was to examine the experiences of trained improviser facilitators who are members of the Midwestern improvisational community and who utilize improvisational strategies in corporate training and development programs. Results from this study provide insight into improviser performers' development into facilitators of knowledge in business. Results also focus on improv facilitators' approaches to fostering innovative experiences and learning in business training workshops. This study guides adult and higher education practice in that educators may draw from methods employed by the improv facilitators in educator development and integration of improvisational strategies into curriculum.

Division I Program and Abstracts

Tue, April 12, 8:15 to 9:45am

Access to the Professions

Convention Center, Level One, Room 143 B

Paper Session

Chair: Eugene L. Anderson

Discussant: Mark A. Lopez, American Dental Education Association

Putting a Face to Disparity and Access Issues: Why Veterinary Medicine Students Need Interprofessional Education (IPE)

Linda Behar-Horenstein, University of Florida; Amara H Estrada, University of Florida; Daniel Estrada, University of Florida; Erik W. Black, University of Florida; Amy V Blue

Interprofessional education (IPE), an important component of health profession training, is an accreditation requirement for many health professions programs. However, little is known about what constitutes effective IPE between veterinary medical students and human health professions. The purpose of this study was to explore veterinary medicine students' perceptions of their interprofessional experiences, to assess the impact of the course, and describe their awareness of access and disparity issues in health care as a result of the IPE course. Focus group methodology was used. Four themes emerged: Recognizing what I might not, Working with other health professions students, Reaffirming career path, and Leadership and professional skills. The findings demonstrated the professional development benefits veterinary medicine students acquired.

Pay to Play: Investigating Differences in Spending Among Different Demographic and Socioeconomic Groups in the Medical School Admissions Process

W. Patrick Bryan, The University of Arizona; Diana B Sesate, The University of Arizona; Jeffrey F. Milem, The University of Arizona; Kadian McIntosh, The University of Arizona; Victoria Navarro Benavides, The University of Arizona

Much research has been conducted concerning admissions factors related to performance in medical school, but little research has investigated the actual process of medical school admissions. This study investigates one aspect of the admissions process, its high cost (\$5,000 on average), and how different subgroups compete for admission with economic resources.

A Systematic Review of Contemporary Diversity Literature in Pharmacy Education

Antonio Bush, UNC-CH School of Pharmacy; Jacqueline E. McLaughlin, University of North Carolina - Chapel Hill; Carla White, University of North Carolina - Chapel Hill

The purpose of this study was to synthesize and review educational research concerning the experiences of diverse groups within colleges and schools of pharmacy. This review will have important implications for future research and practice in pharmacy and professional education. Recommendations for new directions of research aimed at understanding the experiences of the diverse groups of individuals in pharmacy education are provided.

A Racial/Ethnic Comparison of Personal and Program Barriers Across American Medical Schools

Robert H. Tai, University of Virginia; Devasmita Chakraverty, University of Virginia; Donna B. Jeffe, Washington University in St. Louis; Dorothy Andriole, Washington University in St. Louis; Heather D. Wathington, University of Virginia

Race/ethnicity is an important contributor to workforce diversity in medicine. Using theory of professional socialization and qualitative research design (Miles and Huberman's approach), we compared participant barriers in the Doctor of Medicine programs across race/ethnicity. We found qualitative differences (and similarities) across different groups. Minority and gender barriers were most widely reported. Gender and program barriers were prevalent across all groups. Financial barriers were experienced by minorities alone. 43% of White males reported no barriers. While some Black women viewed their ethnicity as barrier, others viewed their gender as barrier, drawing attention to the concept of self-identity and beliefs. Personal and institutional barriers influenced one another. Our findings advance our understanding about how personal identity and institutional characteristics shape barriers.

Division I Program and Abstracts

Tue, April 12, 12:25 to 1:55pm

Leadership in the Professions

Convention Center, Level One, Room 143 B

Paper Session

Chair: Ulemu Luhanga, Emory University

Discussant: Wim H. Gijssels, Maastricht University

**Educating School Library Professionals to Be Leaders:
Community Service to Engage With a Diverse Public**

*Jody K. Howard, Old Dominion University; Sue C. Kimmel,
Old Dominion University; Bree Ruzzi, Old Dominion University*

This qualitative case study examines the development of professional leadership skills among pre-professional school library students during self-directed community service projects. Students who participated in this research lived in rural, sometimes high-poverty and geographically isolated communities, which emphasizes the necessity of developing leadership qualities that would interconnect the students, their schools, and communities. Students were interviewed three times during the study. Interviews were transcribed, evaluated, and coded for the emergence of seven dispositions, behaviors, and skills. Seven themes: caring, persistence, brokering connections, utilizing social capital, application of prior knowledge, vision of sustainability, and leadership behaviors when faced with challenges, emerged as representative qualities necessary for developing leaders in the field of school library science.

**Shared Leadership in Engineering Teams: A Social
Network Analysis of Mechanical Engineering Capstone Design
Teams**

*Brian Novoselich, U.S. Army; David Knight, Virginia Polytechnic
Institute and State University*

There is a continuing call for the development of engineers who can become leaders in helping solve the world's grand challenges. This paper examines the extent to which the Full Range of Leadership is shared within undergraduate, senior-level engineering capstone design teams and creates a taxonomy of engineering team leadership for further study. Results suggest that leadership is more shared than centralized within capstone design teams. Cluster analysis identifies six distinct types of capstone design teams based on leadership actions, mainly differentiated by specific modes of leadership.

The Nature of "New" Swedish Principals' Professional Identity

*Monika Tornsen, Umea University;
Pia Skott, Uppsala University*

This paper is part of a longitudinal study of the effects of the Swedish National School Leadership Training Program. The aim is to explore 12 principals' professional identity understanding in the beginning of the 3-year part-time program. Parallel they work as principals in shifting local school and organizational contexts. Consequently their socialization processes and professional role identity constructions have begun prior to the program. The core of identity is the narrative, the story told through a reflexive process (Giddens, 1991). Therefore life history based interviews were used to examine their professional identities. The identified variety in professional identities reflect individuals' educational background and experience besides different local contextual prerequisites.

Professional Licensure and Certification SIG

Sat, April 9, 6:15 to 7:45pm

Joint Test Validity Research and Evaluation SIG and Professional Licensure and Certification SIG

Business Meeting

Marriott Marquis, Level Two, Marquis Salon 4

Chair: *Leslie R. Hawley, University of Nebraska - Lincoln*

Dr. Chad Buckendahl will present "Evaluating evidence when professional expectations collide with legal expectations: A practitioner's dilemma" based on recent work with a teacher certification testing program that was interpreted by the courts as an employment test and the sometimes competing expectations that evolved during the process. Drs. Hawley and Jones, chairs of the SIGs, will welcome attendees, and provide updates on initiatives and service opportunities.

Chad W. Buckendahl, ACS Ventures

Leslie R. Hawley, University of Nebraska - Lincoln

Andrew Jones, American Board of Surgery

Sun, April 10, 8:15 to 9:45am

On the Use and Validity of Tests in the Professions

Convention Center, Level One, Room 142

Paper Session

Chair: *Louis J. Grosso, American Board of Internal Medicine*

Discussant: *Stephanie Stoll Dalton, CREDE Foundation*

Computer Science Education Certification: Preservice Teacher, Alumni, and Faculty Experiences in a Licensure Program

Michael Karlin, Indiana University - Bloomington; Gamze Ozogul, Indiana University - Bloomington; Gina Howard; Cheryl Hughes; Chih Han Chung

A systematic evaluation of the computer educator licensure program was conducted at a local Midwest university. Qualitative and quantitative data was collected from preservice teachers who were enrolled in the Computer Education Licensure Program (CEL), as well as program alumni and the current program instructors. The study was designed to explore the experiences and expectations of those currently involved with the program, and those who graduated from the program, towards the field of computer science education. The authors' primary findings were that preservice teachers and alumni believe the CEL program and licensure to be advantageous in the job market, beneficial for learning new technology skills, and worthwhile preparation for a careers in computer science education and technology leadership.

Separating Assessment of Subject Matter Knowledge From Assessment of Higher Order Cognitive Constructs

William Joseph Muntean, Pearson; Marie Lindsay, Pearson

Assessment & Information; Joseph Betts, Pearson VUE; Doyoung Kim, National Council of State Boards of Nursing; Ada Woo, National Council of State Boards of Nursing; Philip Dickison, National Council of State Boards of Nursing

The need to assess higher-order cognitive skills leads to defining constructs that properly include both explicit and implicit assumptions. Prior to implementing new assessments that measure the intended construct, test developers must validate these assumptions. Borrowing from cognitive psychology paradigms, where higher-order constructs are regularly validated through theoretical models and frameworks, the current research explores an implicit assumption about the construct of clinical decision-making. Specifically, we present data from a pilot study that addresses the assumption that accurate clinical judgment requires knowledge of related subject matter. The results reaffirm the importance of disentangling two sources of decision-making errors: faulty judgment and faulty subject matter knowledge. The implications of these results are discussed.

In-Training Examinations: All About Predictive Validity and Meaningful Feedback

Ying Du, American Board of Pediatrics; Robert Thomas Furter, American Board of Pediatrics; Linda A. Althouse, American Board of Pediatrics; Rachael Jin Bee Tan, Schroeder Measurement Technologies, Inc.

Many professional certification programs offer in-training examinations to trainees as a self-assessment instrument prior to actual certifying examination. It is critical to provide predictive validity evidence and meaningful feedback to test users for proper interpretation and usage of the test results. This study evaluates the predictive validity of a medical subspecialty in-training exam (SITE). Linear regression is used to analyze predictive nature at each of the three training levels. Logistic regression is used to evaluate the overall predictive accuracy of the SITE on the certifying examination pass/fail classification. Sample score reports provided to fellows and training programs are shared to show the effort of trying to provide meaningful feedbacks.

Effects of Self-Study and Self-Assessment Continuing Medical Education Programs on Maintenance of Certification Examination Performance

Huaping Sun, The American Board of Anesthesiology; Yan Zhou, The American Board of Anesthesiology; Ann Elizabeth Harman, American Board of Anesthesiology (ABA)

The purpose of this study is to determine whether participation in self-study and self-assessment CME programs improves physicians' performance on a Board Maintenance of Certification (MOC) examination. Linear regression showed that participation in such CME programs within one year of taking the MOC exam predicted higher performance on the MOC exam after controlling for primary certification written and oral exam scores. Logistic regression showed that those who participated in such programs within one year of taking the MOC exam were 2.25 times more likely to pass MOC exam compared to those who never participated. Participation in such programs more than one year prior to taking MOC exam did not have significant effect on the MOC exam.

PERQ is the official newsletter of Division I (Education in the Professions) of the American Educational Research Association. Current division officers and committee chairs are:

Vice President (2015-2018):

Danette McKinley, FAIMER

Past Vice President:

LuAnn Wilkerson, The University of Texas, Austin

Secretary:

Monica Cuddy, National Board of Medical Examiners

Members-at-Large:

Rebecca Lipner, American Board of Internal Medicine

Ann McKee, King's College, London

Co-Chairs, 2016 Program Committee:

Anthony Artino, Uniformed Services University of the Health Sciences

Ting Dong, Uniformed Services University of the Health Sciences

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Foundation for Advancement of International Medical Education and Research (FAIMER)

3624 Market Street

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mvanzanten@faimer.org

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