

ACCP Academy Teaching and Learning Newsletter

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Editor: Thomas D. Zlatic, Ph.D.

ACCP Academy Awards Certificates

At the fall ACCP Annual Meeting in Pittsburgh, 20 ACCP members will receive certificates of completion from three ACCP academies: 10 from Teaching and Learning, 9 from Leadership, and 1 from Research and Scholarship. Another 12 members have completed the requirements for the Teaching and Learning certificate, but they will not be able to attend the ceremony.

The presentations will take place on Tuesday, October 18, 8:00 a.m.–9:00 a.m., at the Westin Allegheny Grand Ballroom at the Westin Convention Center Pittsburgh Hotel. The speaker will be ACCP President William Kehoe, Pharm.D., M.A., FCCP, BCPS. Dr. Kehoe is professor and chair of the Department of Pharmacy Practice at the Thomas J. Long School of Pharmacy and Health Sciences of the University of the Pacific in Stockton, California. He also serves as a clinical pharmacist at St. Joseph's Behavioral Health Center and clinical psychopharmacology consultant for Valley Mountain Regional Center for the Developmentally Disabled in Stockton.

Congratulations to all who will be receiving certificates. We hope that you will remain involved in the Teaching and Learning Certificate Program, perhaps as a mentor for new participants.

Fall Meeting in Pittsburgh

The 2011 ACCP Annual Meeting will be held in Pittsburgh, Pennsylvania, from Sunday, October 16, to Wednesday, October 19, at the David L. Lawrence Convention Center.



The two required courses offered in the fall are the 8-hour introductory program, “Basic Training for New Clinical Faculty and Preceptors,” and the 4-hour symposium, “Implementing Teaching and Learning Strategies.”

Required Symposia

“Basic Training for New Clinical Faculty and Preceptors”
Saturday, October 15: 8:00 a.m.–5:30 p.m.

“Implementing Teaching and Learning Strategies”
Monday, October 17: 1:30 p.m.–5:30 p.m.

Note: If you are attending the “Implementing Teaching and Learning Strategies” session, bring with you the outcomes and practice opportunities you had previously developed for your teaching portfolio. You will clarify and expand upon them. If you do not have these documents, you can still attend the session.

Electives

Each TLCP certificate recipient must also complete five 2-hour electives. The following two electives will be offered in Pittsburgh:

1. “Pharmacy Teaching in Experiential Settings: Considerations for Introductory Practice Experiences”
Tuesday, October 18 3:30-5:30 organized by the ACCP PRN on Teaching and Learning

This session includes three interactive presentations:

- “Strategies to Improve Teaching Skills in Precepting” By Dr. Ruth Nemire, B.S.Ph., Pharm.D.
Dean and Professor, Medco School of Pharmacy,

Editor's note: The ACCP Teaching and Learning Academy Newsletter is a quarterly electronic publication initiated to publicize ACCP Academy updates, to provide resources and tips that can enhance teaching, and to serve as a means of exchange for those involved in the ACCP Academy Teaching and Learning Certificate Program (TLCP). You are invited to contribute by suggesting ideas for content and by providing short items of interest. Please send your suggestions and comments to Thomas Zlatic, Newsletter Editor, at tom.zlatic@stlcp.edu.

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Fairleigh Dickinson University, Madison, New Jersey

- “Student Professionalism and how to Teach It” by Dr. Dana Hammer RPh, MS, Ph.D. Director, Bracken Pharmaceutical Care Learning Center; Director, Teaching Certificate Program in Pharmacy Education, University of Washington School of Pharmacy, Seattle, Washington
- “Best Practices in Experiential Education: Focus on Introductory Practice Experiences:” by Dr. Chris Turner B.Pharm, Ph.D. Professor and Director of Experiential Programs, Department of Clinical Pharmacy, University of Colorado School of Pharmacy, Aurora, Colorado

2. “How to Promote Consistency in Grading”

Monday, October 17 9:15 a.m. – 11:15 a.m.

Sheldon Holstad, Pharm.D., Zachary Stacy, Pharm.D., BCPS, and Katie S. Buehler, Pharm.D., BCPS

Interrater Reliability Considerations in Ability-Based Education

Sheldon Holstad, Pharm.D.

Assessment-as-learning is the strategy of using several practice opportunities with assessment feedback to improve ability outcome performance. Because ability-based education focuses on the development of ability outcomes (knowledge, skills, and attitude/habits/values), it is a powerful learning tool. However, it is more labor-intensive. Assessors cannot rely only on summative, often numerical or “objective” scoring to provide the formative, performance-based feedback students need to improve performance. In addition, the need to provide more frequent formative feedback often requires multiple raters to assess sufficient performance opportunities and provide timely feedback to full classes of students.

With fewer “objective” assessments and the need to include a rating of skills and values, raters depend on their own interpretations of what depicts “well done.” Criteria-referenced, evidence-based assessment or scoring rubrics can improve some consistency. But student perceptions of inequities in grading are often still loudly heard—should they be?

Interrater reliability is the extent to which two or more individual raters agree. No shortage of standard reference sources can be identified that concisely and convincingly describe straightforward statistical manipulations to express reliability of scores. Often, an easy to understand and

interpret a simple percentage of agreement between raters is recommended. The calculation divides the number of performances receiving the same score by both raters by the number of performances rated. A 70% agreement is promoted as acceptable interrater reliability.

Several authors have disagreed with such a one-dimensional interpretation of interrater reliability. Steven Stemler contends that such a narrow expression of interrater reliability is, at best, imprecise and, at worst, potentially misleading. He describes three categories of interrater reliability: (1) consensus estimates, (2) consistency estimates, and (3) measurement estimates. The remainder of this article will briefly describe his proposed categories and the strengths and weaknesses of each. The reader is encouraged to read Stemler’s manuscript for more in-depth understanding and critical analysis.



Consensus Estimates

Interrater reliability estimates based on consensus are simply that. They rely on the premise that two or more raters should be able to agree on how to interpret/apply a rating scale. If raters can be trained to reach complete agreement on how to apply a rating scale, their scores may be used interchangeably. Examples of consensus estimates include the simple percent agreement, the Cohen κ (kappa) statistic, the Jaccard J coefficient, and the g -index. Consensus estimates are most useful when ratings are based on nominal or ordinal scales. They are generally easily calculated by hand and can help identify problem areas where raters don’t agree on interpretation of rating scales. Consensus estimates suffer because they (1) must be calculated per pair of raters, (2) require raters to undergo rating scale interpretation training, and (3) can overly influence a conclusion of poor interrater reliability if used as the sole estimate when consensus cannot be reached between raters.

Consistency Estimates

The key assumption underlying consistency estimates is that it really isn’t critical for raters to interpret and apply a scale the same as one another, as long as they consistently apply it themselves. Of note, mean and median scores can

Mentoring is a brain to pick, an ear to listen, and a push in the right direction.

—John Crosby

be very different between raters despite a relatively high consistency estimate of interrater reliability. If ratings are to be combined or used for further analysis, a correction factor may be necessary. The Pearson correlation coefficient and Spearman rank coefficient are two common consistency estimates. They require each rater to evaluate all items, and interrater comparisons are done only in pairs. Where a single estimate for multiple raters is desired, the Cronbach α coefficient is useful; however, again, each rater must score each performance. Collectively, consistency estimates have unique disadvantages caused by raters not agreeing on interpretation of the rating scale. Consistency estimates are most useful when ratings are based on a continuous scale, or under certain circumstances, they may be applied to categorical data.

Measurement Estimates

Measurement estimates are more complex, taking into account as much information as is available from each rater—including discrepant ratings as informative to the model. Measurement estimates do not require raters to come to a consensus on how to apply a scoring rubric because differences in ratings can be assessed and accounted for in the final analysis. They are particularly useful when many raters are involved and when not all raters will be able to score all items.

Principal components analysis and the generalizability theory are older methods of calculating a measure estimate. More recently, the many-facets Rasch model (MFRM) has gained popularity. This measurement permits the difficulty of each item, as well as the rigor (or leniency) of all raters who rated the items, to be compared. MFRM also affords the ability to investigate intra-rater reliability as well as inter-rater reliability. The primary disadvantage of measurement estimates is their complexity and the software requirements for calculation.

For MFRM application, readers are encouraged to see Michael J. Peeters, Eric G. Sahloff, and Gregory E. Stone (2010). A Standardized Rubric to Evaluate Student Presentations. *American Journal of Pharmaceutical Education*: Volume 74, Issue 9, Article 171. doi: 10.5688/aj7409171

More consistent inclusion of interrater reliability should be considered for most courses, and more careful consideration of appropriate interrater reliability estimates must become more prevalent. The ACCP Teaching and Learning

Academy will include an elective offering titled “How to Promote Consistency in Grading” during the upcoming Annual Meeting in Pittsburgh. Academy faculty Zack Stacy, Katie Buehler, and Sheldon Holstad will facilitate an active-learning session focused on interrater reliability. Attendees will have an opportunity to participate in the application of each of Stemler’s three categories of interrater reliability estimates.

Works Cited:

1. Stemler SE. A comparison of consensus, consistency, and measurement approaches to estimating interrater reliability. *Pract Assess Res Eval* 2004;9:1–20.
2. Zlatic TD. *Re-visioning Professional Education: An Orientation to Teaching*. Kansas City, MO: American College of Clinical Pharmacy, 2005.

The Scholarship of Teaching and Learning Updated

Highly influential in higher education is Ernest Boyer’s 1990 book, *Scholarship Reconsidered: Priorities of the Professoriate*. Now, Pat Hutchings, Mary Taylor Huber, and Anthony Ciccone in *The Scholarship of Teaching and Learning Reconsidered: Institutional Integration and Im-*



pact (Jossey-Bass, 2011) review what has taken place in higher education in the past two decades, arguing that “it is time to reconsider the scope of the scholarship

of teaching and learning, and see it as a set of principles and practices that are critical to achieving institutional goals for student learning and success.”

Teaching Creativity: Is It Possible?

Teaching creativity is a desire that many have but that fewer have strategies for doing so. An overview to scholarship on creativity can be found in *Tomorrow’s Professor*, <http://cgi.stanford.edu/~dept-ctl/tomprof/posting.php?ID=1088>. The discussion is derived from *Essentials of Creativity Assessment* by James C. Kaufman, Jonathan A. Plucker, and John Baer (John Wiley & Sons, 2008).

Visit the ACCP On-site Bookstore in Pittsburgh

At the Annual Meeting in Pittsburgh, ACCP will once again offer an opportunity to get the best deal on all ACCP Publications at the On-site Bookstore. Daily throughout the meeting,

I never teach my pupils; I only attempt to provide the conditions in which they can learn.

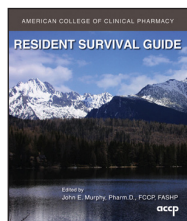
—Albert Einstein

the Bookstore will open at 7:00 a.m. near the Registration Desk and Cyber Café in the David L. Lawrence Convention Center. Bookstore staff will be on hand to answer questions and send your order immediately to our distribution center.

New releases available include the following:

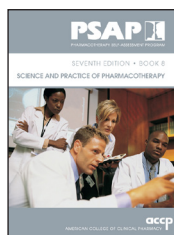
[Resident Survival Guide.](#)

ACCP's newest release offers clinical pharmacy residents a road map for negotiating their residency experience. Editor John E. Murphy and a team of experienced faculty and preceptor-authors discuss topics of interest to residents, including chapters on changing your perspective, what to expect, clinical practice, teaching and precepting, research, balancing professional and personal priorities, after residency, professional networking and career advancement, and lifelong learning as a professional obligation. Each chapter includes a reflective essay written by a pharmacy resident, giving a personal account of what to expect from a residency program.



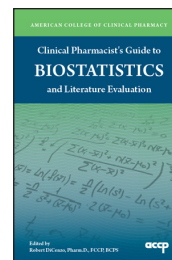
[Pharmacotherapy Self-Assessment Program, Seventh Edition.](#)

View *Science and Practice of Pharmacotherapy*, the latest release in ACCP's popular home study program. PSAP provides the latest updates in many therapeutic areas, and it has been approved by the Board of Pharmacy Specialties for use in Board Certified Pharmacotherapy Specialist (BCPS) recertification. Book 8 has 11.5 available continuing pharmacy education credits.



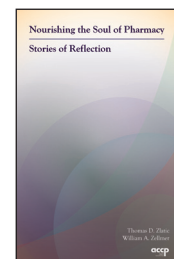
[Clinical Pharmacist's Guide to Biostatistics and Literature Evaluation.](#)

This ACCP best seller is designed to enhance clinical pharmacists' mastery of biostatistical tests. Sections include "Basics of Biostatistics and Statistical Tests" and "Literature Interpretation and Application to Patient Care." Each chapter includes a selected bibliography and self-assessment questions and answers.



[Nourishing the Soul of Pharmacy: Stories of Reflection \(available for pre-order; releases November 2011\).](#)

This collection of essays embraces the use of reflective inquiry to enhance empathy for patients and elicit deeper bonds among practitioners. Editors Thomas D. Zlatic and William A. Zellmer have chosen essays contributed by senior professors and beginning faculty, pharmacy directors and new clinicians, preceptors and residents, Pharm.D. students, and pharmacists from industry and government. Practitioners, educators, students, or anyone seeking a better understanding of pharmacists and the roles they perform will benefit from reading this book. A valuable appendix for using reflection as a learning strategy is included for educators who wish to adopt the volume as a supplementary textbook.



Enhance your meeting experience by perusing these new titles as well as many other resources available in the categories of Therapeutics, Research and Outcomes Assessment, Teaching and Learning, Practice Development, and Leadership—all at the On-site Bookstore.

Learning without thought is labor lost. Thought without learning is intellectual death.

Confucius (551–479 BC)

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