"I recall sitting starry-eyed around a large table with the pioneers of self-directed learning. In addition to Rohwer and Thomas, there was, if memory serves, Michael Pressley, Paul Pintrich, Barry Zimmerman, Martin Covington, John Biggs, Noel Entwistle, Barbara McCombs, and Merlin Wittrock, to name a few. From this summit, the Studying and Self-Directed Learning SIG was born with John Thomas serving as the inaugural chair. I took the SIG program chair reigns in 1990 and assumed the SIG chair position in 1991 and 1992. For readers new to the present-day Studying and Self-Regulated Learning SIG, as Paul Harvey used to say, "Now you know the rest of the story." (see pages 6-7)

Dr. Kenneth A. Kiewra, *University of Nebraska-Lincoln*

"Most students do little reflecting during breaks in performance or when the task is complete. They move on to the next activity. However, reflection is critical. It is the time when we evaluate how well we have learned and accomplished our goals, assess our feelings of satisfaction with what we have accomplished, and make attributions for performance outcomes." (see page 3)

Dr. Dale H. Schunk, *The University of North Carolina at Greensboro*

SSRL SIG Business Meeting and Dinner
(RSVP for the Dinner by Friday, March 29th; see p. 5)

STUDYING AND SELF-REGULATED LEARNING SIG NEWSLETTER Spring 2019

SPECIAL INTEREST GROUP

Studying and Self-Regulated Learning

AERA
AMERICAN EDUCATIONAL RESEARCH ASSOCIATION
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Letter from the Editors

Dr. Evely Boruchovitch, State University of Campinas, Brazil
Dr. Abraham E. Flanigan, Ohio University

Hello, everybody! We hope that all of you are doing well and that you are having a wonderful time preparing for the 2019 AERA Annual Meeting! This year's meeting will be held in April 5-9th in Toronto, Canada. As usual, this newsletter was carefully designed to bring you the best of our SIG. We hope that you enjoy what you find in these pages!

Dr. Evely Boruchovitch

This newsletter contains several exciting contributions from prominent leaders in our field. First, Dr. Dale Schunk contributes a guest message about the importance of training college students to take control of their learning process through the use of self-regulated learning strategies. Second, Dr. Kenneth A. Kiewra takes us with him on a journey as he explains the evolution of his research agenda across time and how his research has been informed by, and contributes to, the SRL literature. Moreover, prominent scholar Dr. Peggy Chen tells us about her ongoing research through an interview with Mr. Kyle Du, our SIG's junior historian.

We have several contributions that should boost your excitement for AERA 2019. You will be treated with overviews of research studies being led by Dr. MeganClaire Cogliano, Jennifer Mischel, M.A., Sarah Davis, and Yeo-eun Kim. Each of these projects have been accepted for presentation during our SIG's sessions at AERA 2019!

Dr. Daniel Moos shares an overview of his Business Meeting keynote address and Dr. Pamela F. Murphy highlights the SIG's AERA 2019 Program. We especially hope that you will all be able to join us for the SIG dinner following the Business Meeting, which is always an enjoyable and memorable experience! Detailed information about the dinner will be provided once they become available.

Additionally, you will find importance announcements within the pages of this newsletter. Dr. Matthew L. Bernacki announces the SIG's Poster Award winner! And, you will hear from our graduate student committee and webmaster regarding the exciting activities taking place within our SIG community.

Dr. Abraham E. Flanigan

Finally, we would like to express our sincerest gratitude to Dr. Héfer Bembenutty for his steadfast leadership and for his love of our SIG. He has been an exemplary leader during his time as SIG Chair. We are looking forward to all of the wonderful ideas Dr. Taylor Acee will bring into the position after the AERA meeting in Toronto!

We cannot wait to see all of you at AERA 2019! We wish all of you a safe and sound trip to Toronto!

Guest Editorial Message

Dr. Dale H. Schunk, The University of North Carolina at Greensboro

Critical Issues Confronting University Students: Controlling the Learning Process through Phases of Self-regulation

Dr. Dale H. Schunk

Like many SSRL SIG members, I teach a course on self-regulation. My learners are first-year students, fresh out of high school. Typically, they show little evidence of self-regulation, and for a good reason. They have not had to do much self-regulating in high school where others dictate most of their activities. Plus they have not received any instruction in self-regulation. They get a shock when they enter the university. Now no one is telling them what to do, where to go, what time to go there, and so forth. They are misled by the wide intervals of "free time" (e.g., classes at 11 and 4, with 4 hours in between). After all, if one has 4 hours of "free time," there is no reason not to spend part of that time on non-academic activities.

Our SSRL SIG has so much to offer these students in terms of theory, research, and practice. The issues I confront in my teaching are straight out of the SSRL SIG playbook. This is indeed one way that we make an impact on people's lives.

Here are some of the critical issues I confront with these new university students. I have organized these issues in terms of three commonly accepted phases of self-regulation: forethought, performance, and reflection.

Forethought

I often see little evidence of forethought. When I ask students to describe for me what they do when they have to study, they often give me a strange look and say they start studying. When I ask what they do before they start studying, they reply with answers such as eat a snack, watch television, talk on the phone, and so forth.

Forethought is critical because it sets the stage for a productive performance. Forethought is the time when we set goals, decide on strategies, work out a time management plan, decide on when and where we are going to engage in the task, arrange the social and physical environments, and motivate ourselves to learn, Yes, forethought takes some time, but the extra time is well worth the effort. In the long run, forethought may save time and make for more productive performance.

Students may not engage in forethought just from me telling them to do so. Instead, I give them assignments to keep a written log of what they do before they begin tasks such as studying different subjects, working alone or in groups, reviewing for a test, and completing a lab project. As they engage in forethought repeatedly, they may find it takes them less time because they learn ways to productively arrange their environments, set time limits, and the like.

Performance

Performance for students often means read the material and complete the task, but it is far more complex than that. Some key performance tasks are keeping attention focused on the task, monitoring goal progress, and being metacognitively active by monitoring their cognitive processing to ensure that learning is occurring. I review various study strategies with them and ask them to apply these strategies on tasks and then report on what they did and how successful it was.

I make a strong pitch to students that they are responsible for maintaining their motivation. An excellent way to do that is to monitor their understanding and goal progress because the belief that one is making progress builds self-efficacy and maintains motivation. However, they think of other ways, such as by building in periodic study breaks if they have earned them. I advise them to put their phones away before they begin. Then they can use some time on the phone as a reward for productive performance.

Reflection

Most students do little reflecting during breaks in performance or when the task is complete. They move on to the next activity. However, reflection is critical. It is the time when we evaluate how well we have learned and accomplished our goals, assess our feelings of satisfaction with what we have accomplished, and make attributions for performance outcomes.

As with the two preceding phases, students keep written records on what they do during reflection and how they use the outcomes of reflection to modify their approach the next time. Students find it helpful to share and evaluate the outcomes of reflection during class discussion.

Conclusion

The bottom line of self-regulation is for students to assume control over their learning. Once they understand that, they try different task approaches to determine what works best for them. All the while, I link their activities to the theory and research in self-regulation. Thanks to the efforts of our SSRL SIG members, these and countless other students are developing productive self-regulatory skills early in their university careers that should serve them well here and after they graduate!

AERA 2019 Program Announcement

Dr. Pamela F. Murphy, Ashford University

Greetings SRL Scholars!

Although the dates and times of our SIG sessions at AERA 2019 are still being finalized, we do know which sessions will be run and about the content of the sessions.

Business Meeting: The speaker for our business meeting is Daniel C. Moos, a longtime member and former officer of the SIG. This presentation, "Teacher as Learner: The Missing Ingredient for Integrating Self-Regulated Learning in the Classroom?" will explore why and how self-regulated learning should be integrated into teacher development programs. The presentation will be framed by his team's research agenda over the last twelve years, practical experience working with pre- and in-service teachers, and firsthand experience as an elementary and middle school teacher.

Dinner: The annual SIG dinner will take place after the business meeting on Sunday, April 7, 2019 (see page 5).

Symposium: Teachers' Beliefs and Practices with Respect to Teaching for Self-Regulated Learning (SRL), chaired by Stella Vosniadou. Discussants are Jeff Greene and Patricia Alexander. The symposium contains four papers.

Paper Session: Self-Directed Learning and Metacognition, chaired by Dale Schunk. The discussant is Taylor Acee. The session includes five papers. (Co-sponsored by the Motivation SIG.)

Paper Session: Self-Regulated Learning in Post-Secondary Education Settings, chaired by Maria K. DiBenedetto with Héfer Bembenutty as discussant. Five papers are included in this session. (Co-sponsored by Division C – 3b.)

Roundtable Session: Self-Regulated Learning Processes and Strategies, chaired by Divya Varier. Pamela Murphy is the discussant. Four papers will be presented in this session. (Co-sponsored by the Motivation SIG.)

Poster Session: Research in Self-Regulated Learning. This session is chaired by Abraham Flanigan, with Dale Schunk as the discussant. Seven posters will be presented.

In addition to these sessions originating in the SSRL SIG, we are co-sponsoring sessions with Division C – 3b and the Motivation SIG. The Division C – 3b sessions are "Motivation and Self-Regulation in Educational Technology Contexts" and "Multimodal Data during Learning with Advanced Learning Technologies: What Does Evidence Reveal about Self-Regulated Learning?" The Motivation SIG session is "Motivation Interventions Proven to Work in K-12 Classrooms: Improving Students' Value, Confidence, Self-Regulation, and Satisfaction."

AERA 2019 Business Meeting, Keynote Speaker, & Dinner

Keynote Address: Teacher as Learner: The Missing Ingredient for Integrating Self-Regulated Learning in the Classroom?

Dr. Daniel Moos of Gustavus Adolphus College will deliver the keynote address during the SSRL SIG Business Meeting at AERA 2019 in Toronto, Canada. Dr. Moos is a Professor in the Education Department. Dr. Moos chairs the Teacher Education program and teaches courses on developmental and educational psychology. His research agenda examines self-regulated learning in a variety of contexts, including classroom based technology and teacher development programs. Below is an abstract of Dr. Moos' planned address:

Dr. Daniel Moos

A robust body of research demonstrates achievement is positively affected by effective self-regulation of learning. Various programs, interventions, and pedagogies that support self-regulated learning (SRL) have been successfully implemented in the classroom. However, a surprising paradox arises when these findings are considered within the context of research that has examined how teachers support SRL in the classroom. Many teachers do not explicitly teach students how to self-regulate their learning despite the robust body of evidence linking effective regulation of learning and achievement. What is the missing ingredient? This keynote address will approach this question through the framework of "teacher as learner." Current research from the field, findings from the presenter's research agenda, and the presenter's experiences as an elementary and middle school teacher will be used to frame the presentation.

SSRL SIG DINNER

Please join us for dinner at Aanch – Modernistic Indian Cuisine, following our Business Meeting on Sunday, April 7. Feel free to bring your family, non-SIG-member conference buddies, etc. You can order whatever you wish from the menu, and each person pays separately. Aanch is about a 6-minute walk from the Convention Center. See below for more details and the link to RSVP.

Day/Time: 9:00pm on Sunday, April 7, 2019
Restaurant: Aanch Modernistic Indian Cuisine
Address: 259 Wellington St W, Toronto, ON M5V 3E4, Canada
RSVP at this link by Friday, March 29: https://txstate.co1.qualtrics.com/jfe/form/

Research Spotlight
Dr. Kenneth A. Kiewra
University of Nebraska-Lincoln

Evolution of a Self-Regulation Research Program

The origin of my research program is etched in stone—Stone Building, that is, on the Florida State University campus. It was there in 1979, my first year as a graduate student, that my statistics professor, Harold Fletcher, announced that note taking was outlawed in his class. He believed that note taking hindered students' attention. Yet, he understood that students needed material to study, so he provided notes following each lesson. Most students were relieved to forgo note taking and thankful to receive notes. Not me. I was a voracious note taker who had twice been named Note Taker of the Year Runner-Up in college. Although Fletcher's dictum was troublesome and led me to become a clandestine scriber—scribbling feverishly on a lap-resting, pocket-sized notepad when Fletcher looked away—it also led to my first and long-held research topic—note taking.

Under Fletcher's tutelage, he was also my advisor, I conducted six note-taking studies before earning my Ph.D. in 1982. None of these were published while I was a student, though, making my pub-less, 1982 faculty hiring at Kansas State University a mystery only explainable by the common marathon running interest a selection committee member and I shared.

Once at K-State, I was off and running, publishing 11 note-taking articles in my first three years. The most influential of these were two review articles published in the same *Educational Psychologist* issue. One reviewed the note-taking literature from a depth of processing perspective, and the other recapped the advantages of instructors providing notes. Turns out Professor Fletcher knew what he was doing.

Dr. Kenneth A. Kiewra

Beginning in 1984, my research world was shaken by a landmark article by William Rohwer published in *Educational Psychologist* titled "An Invitation to an Educational Psychology of Studying." It convincingly argued that educational psychologists must occasionally turn the research spotlight from teacher to student and understand how students learn on their own, what Rohwer called autonomous learning. This article seemed to legitimize my note-taking research and provide it a learner-centered home while also sparking an international autonomous learning research movement. This movement took hold in 1986 when William Rohwer and John Thomas held an invited autonomous learning summit at Far West Laboratory in San Francisco. I recall sitting starry-eyed around a large table with the pioneers of self-directed learning. In addition to Rohwer and Thomas, there was, if memory serves, Michael Pressley, Paul Pintrich, Barry Zimmerman, Martin Covington, John Biggs, Noel Entwistle, Barbara McCombs, and Merlin Wittrock, to name a few. From this summit, the Studying and Self-Directed Learning SIG was born with John Thomas serving as the inaugural chair. I took the SIG program chair reigns in 1990 and assumed the SIG chair position in 1991 and 1992. For readers new to the present-day Studying and Self-Regulated Learning SIG, as Paul Harvey used to say, "Now you know the rest of the story."

My note-taking research has continued into the present and has investigated both instructor-directed and student-directed methods to improve note taking and achievement. Teacher-directed methods, for example, include: review questions, instructor notes, skeletal notes, embedded headings, lecture repetition, advance organizers, mnemonics, and organizational cues. Student-directed methods, for example, include: copying and pasting notes, note study methods, note revision, and laptop versus longhand note taking.

My note-taking research took a turn in the late 1980s when Nelson DuBois, my educational psychology mentor stemming from my SUNY Oneonta college days, and I began to study graphic organizers as note-taking tools—particularly the matrix. My graphic organizer investigations also continue into the present and have addressed topics such as: concept learning, text learning, confusing word-pair learning, web-based learning, graphic organizers versus text and outlines, and study methods.

Beginning in 2009, my note-taking and graphic organizer research led to my developing the SOAR teaching and learning method. SOAR is an acronym for the method's four components: select, organize, associate, and regulate. Student success, I reasoned based on information-processing theory and on strategy research, requires that students be prompted or taught to (a) select important lesson information, often using note taking, (b) organize that information, often using graphic organizers, (c) associate that information to uncover meaningful relationships, and (d) regulate learning, often using self-monitoring.

Continued on the next page

Dr. Kiewra Research Spotlight (continued)

My research with student collaborators confirmed that SOAR methods were superior to students' preferred study methods for text-based learning, computer-based learning, learning from multiple sources, and composing synthesis essays. SOAR studiers also out-achieved those using SQ3R study methods. SOAR methods became the focus of a study skills text for students and a methods text for teachers.

My just described strategy-based research program—from note taking to graphic organizers to SOAR—is illustrated on the left -side of the Figure 1 graphic organizer. However, in the early-2000s, that research agenda had company. My research program took a new turn toward talent development, that of educational psychologists and that of expert performers in various talent domains, as shown on the right-side of Figure 1.

Being an educational psychologist, I was naturally curious about how top educational psychologists became so productive. My first study investigated the success stories of Michael Pressley, Richard Mayer, and Richard Anderson. That study was followed by two others that investigated productive scholars such as Barry Zimmerman, Dale Schunk, Patricia Alexander, Hans Gruber, and Alexander Renkl.

Findings from these studies revealed several contributing talent factors such as influential mentors, a center of excellence, conducting pioneering science, collaboration—especially with students, and highly efficient research-management and time-management routines.

My research on expertise began in an unexpected place—my home. When my first child, Keaton, was born in 1987, I had no intention of introducing him to chess and developing his chess talent. I was not a chess player myself, and like most parents, I just wanted him to be healthy and happy. I never imagined that he would one day win national scholastic championships and earn the International Master title. And, I never imagined what a vital role I would have to play to help nurture his chess talent. This personal experience awakened my data gathering instincts as I investigated the roles parents play in national- and world-class talent development—first in chess and then in many other domains such as Olympic speed skating, Olympic figure skating, baton twirling, music, writing, volleyball, and spelling, among others. This expertise research has culminated in a talent documentary found on my website (https://cehs.unl.edu/kiewra/) and in a newly published book titled, *Nurturing Children's Talents: A Guide for Parents*.

I draw four conclusions from my research program. First, it is based on personal interest. As a graduate student denied note-taking privileges, I wanted to know the relative benefits of recording versus receiving lesson notes. As an educational psychologist, I wanted to know how some educational psychologists could be so productive. And, as parent, I wanted to know how to nurture my child's talents. Second, my research is programmatic. Note-taking research led to investigating a special brand of notes—graphic organizers. Note-taking and graphic organizer research led to creating and investigating a soup-to-nuts teaching and study method called SOAR. Moreover, investigating academic learning was a natural lead in for investigating talent—the highest rung on the learning ladder. Third, my research agenda is useful in its potential impacts for students studying, teachers designing and delivering lessons, and parents nurturing talent. Finally, all of this work fits snugly beneath the self-regulated learning umbrella that William Rohwer and colleagues unfurled 35 years ago. From this work, a bit more is known about how students should learn autonomously and how teachers and parents can help.

Figure 1: Professor Kiewra's Research

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Classroom Assessment, Measurement, and Self-Regulation of Learning: An Interview with Dr. Peggy P. Chen

By: Kyle Du, The Graduate Center and Queens College of The City University of New York

Du: You have made many contributions to the SSRL SIG and have served as the program chair. What did you learn when serving in that position?
Chen: I learned a lot from being the SSRL SIG Program Chair. Working with co-chairs, like Salisbury-Glennon and Taylor Acee, who are my friends, was fulfilling. They taught me about the processes involved in being program chair, such as working within the SSRL SIG, other SIGs, and AERA. I also enjoyed working with SIG officers, like Maria DiBenedetto and Marie White. Importantly, I learned about the trends in research on self-regulated learning (SRL) that were presented in those AERA proposals and became more knowledgeable about the nuances through reviewers' comments. The position provided me with a different lens for learning about the field of SRL. It was an experience that I treasure, and I am grateful and honored to have served for two years.

Dr. Peggy Chen

Du: Self-regulation encompasses a wide variety of skills and processes. Which self-regulation processes would you say are some of the most important for students to master, and how do they enhance one's learning?
Chen: This is a difficult question to answer because many SRL processes are important for enhancing one's learning. I would have to respond by saying that one should review and examine the various SRL models that have been empirically studied—then consider the SRL processes that have been shown to influence student performance positively. That said, I would venture to say that metacognition—one of the SRL processes—is vital to learners. More specifically, I am referring to monitoring one's progress throughout learning endeavors. Metacognition is more than just knowing about knowing. Many students need explicit instructions and tools for monitoring and systematically recording their learning progress. But the explicit recording of the performance is not enough for some students to understand what they need to do next or how to proceed further. Learning to provide accurate self-feedback, as well as seeking external feedback or help, are also critical SRL processes to enhance learning.

Du: Your research has also focused on assessment in the classroom, particularly formative assessment. What is the relationship between assessment and self-regulated learning, and how can an educator tie the two together in the classroom?
Chen: Knowing that there are well-articulated SRL models and an abundance of rigorous empirical studies in the field, I think branching out and incorporating SRL theoretical frameworks with other fields, such as classroom assessment (CA), is an excellent attempt to bridge theories and practices across disciplines. First, the relationship between SRL and CA, particularly assessment for formative purposes, enhances the possibility of both being able to have a positive impact on learners. SRL is performed by oneself for oneself, while CA is mostly performed by others for the benefit of students.

However, as both fields evolve, the SRL and CA conceptualization and expansion of constructs share more similar processes increasingly. SRL researchers are expanding regulation to include shared regulation and co-regulation, encompassing the interactive nature of the classroom. CA researchers, on the other hand, have focused not only on what and how teachers assess their students, but on how students' learning can benefit from assessments, including self-and peer-assessment in the classroom. I see the shift in research agendas and interests in SRL and CA as a call for tying together the processes between the two fields, and to articulate the shared underlying mechanisms that support student SRL and enable students to engage and drive assessment processes in the classroom.

How one can tie SRL and CA processes together is complex, and I am certain there are many ways to do so. Under the self-regulated learning framework, we focus on the learners themselves. Working on a complex task or working in a novel learning situation, self-regulated learners begin by analyzing the task, thinking about the strategies they would employ, and considering their motivation; they also pre-assess their capabilities to take on and complete the task. In the classroom, assessments have various purposes. Educators, specifically classroom teachers, begin the semester, a unit, or a class by surveying the students' strengths and learning gaps. They conduct pre-assessment to gather some ideas of students' prior experiences in the content area itself, as well as students' knowledge and skills (including alternative conceptions), and interest in the content or attitudes toward it. Based on pre-assessment evidence, educators can make inferences and decisions about their students and the course of instruction. This is just one example of tying together shared processes to support both SRL and CA.

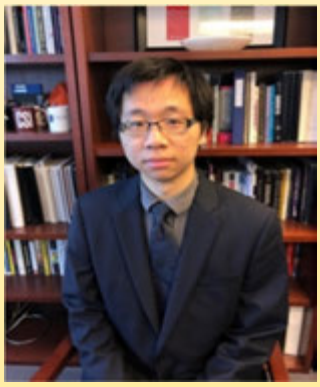
Continued on the next page

Dr. Chen Interview (Continued)

Du: Your most recent publication, *Systematic Classroom Assessment: An Approach for Learning and Self-Regulation*, is set to be published in April. How was the book conceptualized? What is your book about and what can the reader expect to learn from it?
Chen: This book is co-authored with my good friend and colleague, Sarah Bonner, at Hunter College. A brief background of our concept for the book stems from our collaboration and the instruction of courses we conducted on classroom assessment for the teacher candidates in our institution. We first developed a framework that we called Classroom Assessment with Self-regulated Learning (CA:SRL), with four stages to demonstrate our vision of what CA should look like and how SRL can be developed and supported in the classroom. Our book has three sections. In the first section, we map the assessment processes typically observed in K-12 classrooms onto Barry Zimmerman's SRL model. We detail the CA:SRL framework by identifying the processes that CA and SRL share. Importantly, we suggested specific assessment tools in this first section that we consider vital for gathering evidence of student learning and supporting SRL in each of our four-stage frameworks. In Section 2 of the book, we present the technical qualities of assessments—with the caveat that some of the ways we look at technical quality in CA are inherently different from the high-stakes standardized testing context. CA has a certain degree of fluidity that we want educators and teachers to be aware of and be able to justify for their assessment tasks and approaches, based on sound measurement principles. The last section of the book includes case studies of how teachers implemented CA to support SRL and learning in the content areas of math, ELA, and music. We intend to show the integration of theories and practices in SRL and CA within different classrooms.

Du: You recently received a grant from the National Science Foundation to research the realm of formative assessment in computer science and self-regulated learning. What is your team investigating in this project, and what are your expected findings?
Chen: In this project, we are seeking to develop formative assessment tasks that would support student learning of computational thinking and SRL. As the co-PI on this project, my work is to help think about learning and determine where and how SRL can be introduced during students' learning of various computational thinking concepts. We are in the development phase of the project and are working with teachers to pilot some tasks that target SRL performance-phase processes, using Zimmerman's SRL model as our guide. I have been fortunate to have learned and collaborated with Zimmerman. As for the expected findings, I hope that when we test the assessment tasks next year, students will show improvement in their performance during the second and third iterations of assessment.

Du: Finally, what piece of advice would you offer to aspiring researchers and scholars pursuing the fields of studying and self-regulation?
Chen: It is easier to do what we know well, but that comfort also can hold us back from learning and from researching new opportunities. I would advise that aspiring graduate students and scholars focus on how to incorporate SRL with other disciplines so that we can continue to make a mark with SRL—not only within our discipline, but across disciplines. It is essential for us to be involved in our SIG and the broader community of research and learning.



Dr. Peggy P. Chen is an associate professor and a co-founder of the master's program in Educational Psychology at Hunter College. She is also a member of the faculty of the Ph.D. program in Educational Psychology at the Graduate Center, the City University of New York. Dr. Chen received her Ph.D. in educational psychology from the Graduate Center under the mentorship of Barry J. Zimmerman. She teaches undergraduate, master's-level, and doctoral-level courses in educational psychology, history and systems of psychology, classroom assessment, program evaluation, and research methodology. Dr. Chen's major research areas are: 1) adolescents' self-perceptions in learning of math and use of self-regulation strategies, 2) teachers' practices, knowledge, and beliefs about classroom assessment and measurement, and 3) teacher candidates' math anxiety, self-efficacy, and judgments of math items. She has published her studies in journals such as *Journal of School Psychology, Journal of Experimental Education, Educational Assessment*, and *Learning and Individual Differences*.

Mr. Kyle Du is a co-historian for the Studying and Self-Regulated Learning SIG and is a doctoral student in the Educational Psychology program at the CUNY Graduate Center. His research interests lie in the use of innovative statistical strategies to report and summarize data.

Mr. Kyle Du

Outstanding Poster Award Announcement!

Dr. Matthew L. Bernacki
University of North Carolina at Chapel Hill

Teacher preparation programs are charged with ensuring that future educators possess the both the content knowledge and pedagogical knowledge needed to effectively instruct their future students. To do so, programs must develop pre-service teachers' understanding of and ability to apply learning theory, instructional theory and design, and other skills across a broad range of disciplines – all within a finite number of credits and courses. This is a tall order, and researchers continually seek new ways to develop pre-service teachers' knowledge and skills within this preparatory experience.

Dr. Tova Michalsky

This year's outstanding poster award for a submission to the AERA SSRL SIG is awarded to **Tova Michalsky** from **Bar-Ilan University** for "Preservice Teachers' Professional Vision for and Capacity to Teach Self-Regulated Learning: Effects of Scaffolding Level"

The purpose of this project was to address the question, "How can preparation programs help preservice teachers acquire the SRL-teaching expertise to positively develop their students' SRL?"

The authors adopted the Professional Vision (PV) concept and aimed to develop teachers' ability to notice features and events within the classroom, and their ability to analyze and interpret events in order to respond to them in the most effective manner. This vision requires prior content and pedagogical knowledge, as well as the ability to apply knowledge to context and behave in an adapt manner.

Pre-service physics teachers completed multiple 2-hr workshop sessions on PV for SRL within a teaching and learning course. The sessions involved observing instruction on video, noticing features of learning and instruction, and analyzing teacher moves. Across three training conditions involving different levels of scaffolding (guided, hinted, self-guided), all groups improved their ability to describe, notice, explain, and predict events. Interactions also emerged indicating differences in scores across conditions. When these students were then observed during teaching sessions, all groups also demonstrated improved use of implicit and explicit SRL strategies. Interactions further revealed that those whose video-based training was scaffolded with hints outperformed those who received guided instruction, and both outperformed the self-guided students. These effects were sustained after a delay, which lended additional confidence to the robustness of the scaffolding effects. This early evidence suggests that brief video-based PV training might be an effective way to incorporate SRL training into teacher preparation, and might be a method to improve pre-service teachers ability to adapt their instruction to the needs of their future students.

Impact of a Retrieval Practice Intervention on Undergraduates' Monitoring and Control Processes Using Feedback

Dr. MeganClaire Cogliano[1], Dr. Matthew L. Bernacki[2], and Dr. CarolAnne M. Kardash[3]
Nevada State College[1]; University of North Carolina at Chapel Hill[2]; University of Nevada-Las Vegas[3]

Purpose. The present study examined whether a metacognitive retrieval practice intervention influences students' views about the benefits of retrieval practice, frequency of self-directed practice-test use across the course, monitoring accuracy of well-learned versus yet-to-be-learned information from performance feedback, effective control of future study decisions (i.e., choosing to use retrieval practice), and overall course performance. Our specific research questions and hypotheses were:

1) Does participation in a metacognitive monitoring and control training of retrieval practice lead to a significant increase in course performance?
2) Are the effects of training on achievement mediated by students' subsequent metacognitive monitoring practices when interpreting feedback (i.e., superior accuracy in labeling well-learned and yet-to-be-mastered topics) and their subsequent study decisions (i.e., voluntary practice-test use, monitoring strategy use, or strategy control decisions)?

Dr. MeganClaire Cogliano

Sample. Participants were 103 undergraduates enrolled in five sections of an introductory-level educational psychology course at a Southwestern university (*M* age of 22.56, *SD* = 5.42, 75% female). The students were randomly assigned to the treatment condition (*N* =49) and the control condition (*N* = 54).

Methods. In week one, students completed the prior knowledge measure and the consent form. Thereafter, students took 10 weekly multiple-choice practice-tests with feedback followed by a feedback assignment as part of the course materials. Students were required to self-report their monitoring of well-learned versus yet-to-be-learned objectives based on feedback provided on practice-tests. In addition, students were asked to evaluate the effectiveness of their current study strategies and make future study decisions. Students were able to repeat practice-tests as often as they wished during the semester.
During week three, students were randomly assigned to the training or a control group. Students in the training condition learned about the benefits of retrieval practice, how to self-regulate the learning strategy on their own, and how to evaluate feedback. Students in the control group completed a series of readings and activities aligned to the course

Results. Students who completed the training outperformed control group students on final exam items that were not previously quizzed. Training was also found to have a positive direct effect on several metacognitive monitoring processes such as monitoring what students have mastered (i.e., well-learned content) and information that students have not mastered (i.e., yet-to-be-learned content), as well as effective control of subsequent study decisions. Yet-to-be-learned monitoring had the only indirect effect of training on final examination performance in the full mediation model. Our findings suggest that external evaluations of yet-to-be-learned monitoring accuracy, or errors, was the most critical factor for improved academic performance in a classroom setting.

Scholarly Significance. This study helps fill the gap that exists in the research about whether training influences students' ability to accurately monitor practice-test feedback (Rawson & Dunlosky, 2007; Dunlosky & Rawson, 2012), select more effective strategies for study (Karpicke, 2009), and use practice-tests more frequently (Ariel & Karpicke, 2017) in a classroom setting. Specifically, it provides new and valuable information about the direct and more complex relationships that exist between students' monitoring of practice-test feedback, monitoring and controlled use of study strategies, and repeated use of practice-tests, course objectives, and My Grades, over time.

Examining the Interplay Between Psychological Well-Being and Self-Regulated Learning Around Academic Challenges

Sarah K. Davis & Dr. Allyson F. Hadwin, *University of Victoria*

My name is Sarah Davis and I am a PhD student in Educational Psychology at the University of Victoria in Victoria, BC, Canada. I work with my advisor, Dr. Allyson Hadwin, and colleagues in the *Technology Integration and Evaluation Research Lab*. Before starting my PhD, I worked as a high school teacher and school counsellor for seven years. I realized we know little about how mental health affects learning and I saw an opportunity for research that has the potential to inform theory, research, and practice in student success, SRL, and mental health.

Ms. Sarah K. Davis

Study Rationale. My dissertation examines the interplay between SRL and mental health, specifically how students leverage SRL strategies and processes to optimize their mental health around academic challenges. Mental health, distinct from mental illness, refers to a state of well-being in which individuals cope with stressors, work productively, and contribute to society (WHO, 2016). The poster I will present at AERA in Toronto focuses on the psychological well-being (PWB) factor of mental health, comprising self-acceptance, positive relations with others, personal growth, life purpose, autonomy, and environmental mastery. There is a lack of research on SRL and PWB that uses dynamic, within-person event-based patterns over time during regulation of academic challenges rather than just broad, aptitude SRL measures given at one time point.

Purpose. The purpose of this study was to examine and compare PWB, academic engagement, and how these two interact with challenges and strategies undergraduate students report while attempting to attain a weekly self-set goal for one independent academic study session over nine consecutive weeks. **Research questions included**: (1) Does PWB differ between groups with varying levels of goal attainment? and (2) What do the patterns of PWB and academic engagement reveal about the process of adaptive and maladaptive regulation over time?

Sample and Procedures. Participants were 118 undergraduate students enrolled in a learning-to-learn course who completed nine weekly online SRL diary tools to plan for, reflect on, and learn from one weekly study session. We divided students into groups based on their proportion of goals attained during the semester: low/moderate, high, and always.

Findings: In examining the groups for differences in PWB, overall, the low/moderate goal attainment group had the lowest PWB score of the three groups and was significantly different only from the always goal attainment group. An ANOVA determined the differences in PWB were significant between the low/moderate and always group. We created process mining maps using Disco software for one student from each of these groups to gain insight of the dynamic, over time regulatory patterns of academic engagement, PWB, challenges, and strategies.

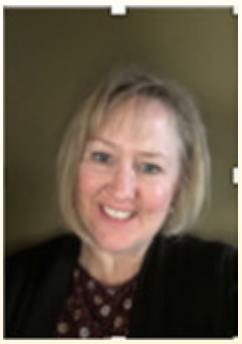
Dr. Allyson F. Hadwin

Conclusions: In sum, to tackle the bigger issue of mental health at university, this study indicates that leveraging SRL process and strategies around academic challenges may help students take control of their learning and may help them engage in adaptive regulation patterns. As engagement and PWB fluctuate over time, being aware of patterns may help students engage in more metacognitive control and strategic action.

Long-term Use of Goal-setting Strategies of Middle School Students with Learning Disabilities

Ms. Jenny Mischel, Dr. Sheri Berkeley, & Ms. Imani Cones,
George Mason University

Rationale. Teaching goal setting skills is instrumental in helping students achieve desired outcomes (Rader, 2005) and in promoting self-efficacy (Schunk, 1990). As expectations for students with learning disabilities to master information taught within the general curriculum increases in prevalence (Brigham, Scruggs & Mastropieri, 2011), it is salient to address interventions that encourage progress and enhance self-efficacy transferable to other curricular areas (Reed & Lynn, 2016), such as goal setting. In order for students with learning disabilities to successfully understand and apply goal setting strategies, continuous training and teacher support is necessary to ensure students set realistic and attainable goals (Swain, 2005).



Jenny Mischel, M.A.

Design. The current study was implemented four months after the culmination of the original research study, a science-based project in which students with learning disabilities created computerized serious educational games (SEG) with reference to renewable energy sources. To ensure student success, goal-setting strategies were introduced, modeled, and reinforced on a daily basis. Data analysis of the primary study suggested that an ample number of students attributed their reported daily successes to goal setting strategies. Therefore, we wanted to explore whether these students' perceptions were maintained and generalized to other areas.

Dr. Sheri Berkeley

A multiple case study approach was utilized through semi-structured interviews with four students from the primary project. The research questions addressed were: (a) How were students continuing to use goal setting strategies, and (b) If so, why did they perceive this to be valuable?

Findings and Implications. Many recurring patterns occurred through analysis across the four students, indicating use of strategies taught during the primary project. All students reported continued use of goal setting skills to other content areas beyond the scope of building a SEG, after the culmination of the primary project. Additionally, students reported continuing ability to adjust goals depending on the amount of time necessary for attainment and goal difficulty. They also shared the necessity to break down goals into manageable chunks in order to attain desired outcomes for long-term goals. Also, students indicated that goal setting strategies used were applied to areas of interest, representative of direct instruction on the relevancy of setting personally relevant goals. Furthermore, use of positive self-talk was evidenced during the interviews, a vital component to maintain persistence during long-term projects. Finally, and probably most promising, students readily attributed goal setting strategies to future aspirations.

Imani Cones, M.Ed.

Follow-up interviews indicated goal setting skills taught during the primary study were continually implemented to other curricular/extra-curricular areas as well as intent to use in future desired goals. This finding is salient as research has shown that implementing self-regulatory processes by students with learning disabilities, via instruction on goal setting and reflective practices, promotes learning and performance across other areas (Bembenutty, Cleary, & Kitsantas, 2013; Troia & Graham, 2002). This helps build self-efficacy beliefs in ability to attain future goals (Schunk, 1990). Findings from this current study indicated that when students with learning disabilities are given direct instruction on goal setting skills, with adequate modeling and practice, the potential for these practices to be continued and expanded is possible.

An Evaluation of the Distinction Between the Four Areas of Self-Regulated Learning

Yeo-eun Kim, Anna C. Brady, & Dr. Christopher A. Wolters
The Ohio State University

Ms. Yeo-eun Kim

Ms. Anna Brady

Dr. Wolters

Are the regulation of cognition, motivation, context, and behavior distinct? Many researchers have proposed that students can deliberately self-regulate various aspects of their learning (e.g., Boekaerts, 1996; Pintrich, 2004; Zimmerman, 1995, 2000). Pintrich and his colleagues explicitly emphasized that there are four different areas that students can self-regulate: cognition, motivation/affect, behavior, and context (Pintrich 2000, 2004; Pintrich & Zusho, 2007). Despite the general agreement on the assumption that students actively manage multiple aspects of their learning, greater focus has been given to students' use of cognitive and metacognitive strategies (Dent, & Koenka, 2016; Wolters, 2003). As the different types of self-regulatory strategies are intertwined, different areas of self-regulated learning (SRL) should be examined together, not in isolation (Pintrich & Zusho, 2007). The present study aims to evaluate the theoretical assumption that students regulate different areas of learning, including: motivation, cognition, behavior, and context. We pursue this goal by examining whether the regulatory strategies associated with each of the four areas of SRL can be empirically distinguished, and how these different types of strategies relate to motivation and academic outcomes differently in an integrated model.

The participants of this study were 273 undergraduate students (53.5% males, Mage = 20.5 years) from a large university in the Midwestern US. Students completed online self-report surveys regarding their motivation (i.e., task value, self-efficacy for SRL) and their use of self-regulation strategies (i.e., regulation of motivation, cognition, behavior, context). For behavioral outcomes, students' procrastination and GPA were assessed. The specific research questions were: (1) Are the regulatory strategies associated with each of the four areas of SRL empirically distinct? (2) Do the four types of regulatory strategies operate differently in an integrated model with motivation and academic outcomes?

Our results indicate that the regulatory strategies associated with motivation, cognition, behavior, and context are empirically distinct but closely related factors and that each reflects a more general tendency for students to regulate their own learning. Our findings also indicate that the regulatory strategies associated with each of the four areas of SRL differentially associate with motivation and behavioral outcomes. This suggests that the strategies students utilize to regulate different aspects of themselves and their learning environment might lead to different behavioral outcomes. There may be some strategies that are more effective in achieving different academic outcomes. In other words, students' decisions in selecting and implementing specific regulatory processes matters. For example, even when both students are actively engaging in self-regulatory processes, the outcomes might be different depending on which specific area of SRL students are working to regulate. Further examination is needed to provide practical implications on when and which regulatory strategies are most effective for enhancing various academic outcomes. Future studies should incorporate a broader array of areas of SRL when conducting SRL studies and further address the differential effects of each type of strategy.

Web Presence Announcement

Charles Raffaele, The Graduate Center, CUNY

I hope your 2019 has been proceeding in a self-regulated fashion. Here I will give an update on happenings in the last several months for the SIG's social media platform (facebook.com/groups/AERASSRL/) and its website (SSRLSIG.org), and call for your further participation with these hubs.

First, an encouragement to use our Facebook group page is in order. Whether as a reader, contributor, or commenter on any item, your presence on our Facebook page does much for the work of those devoted to self-regulated learning. New content is posted on the page regularly, which may be of great value to you. By joining the group, you can receive automatic Facebook notifications alerting you to new posts in the group, and you can (and should) comment on any of the group's posts with your own thoughts, feedback, or conversation starters. Additionally, as a member of the group, you can make your own posts in the group. If you do so, your posts can cover a range of uses, from an in-depth treatment of an SRL topic you've thought deeply about, to the sharing of any SRL-related news article you've come across, or any other purpose of interest to SSRL Facebook group members.

Furthermore, the website has received various updates of late. On its front page, you can see (below the introductory photo and SIG information) a constantly refreshed list of recent additions to the website. Some of these are equivalent to posts on the Facebook group and the SIG's mailing list emails, and some are unique to the website. Some recent new content posted includes the latest SSRL Times Magazine issues (also archived in the site's *Awards, Opportunities & Digests à SSRL Times Magazine* page), a current version of the APA's top 20 principles from Psychology for teaching PreK-12 gifted students (principles 7, 11 and 12 of which are SRL-based; also stored in the *Resources* à *SRL Resources for Teachers* page), new interviews with Dr. Hadwin and Dr. Farenga (stored also in the site's *About Us* à *Who We Are* à *Interviews* page), and a spotlight on a recent interview with Dr. McKeachie.

Therefore, it can be seen that both the Facebook group and the website are rich with content! Your contributions will certainly bring both of these yet more to life, as well. If you send good and relevant media to the SIG that supports self-regulation (e.g. pictures or music you've created or come across that reinforce self-regulated living) it will be showcased on the website. After all, who wouldn't like and benefit from a SRL gallery or playlist?

Graduate Student Committee Announcement!

The graduate student committee wishes to thank all the faculty and students who have supported and contributed to our different initiatives this year! We continue to count on your suggestions and support to help move our committee and the SSRL SIG to the next level.

Also, we are happy to announce and introduce our new graduate student co-chair, Sarah Davis. Sarah will be replacing Aloy Anyichie as he takes on a new role as mentor to the graduate student committee, beginning in April 2019. Sarah and Laith will continue to work on the two Graduate Student Committee projects: (1) *the Conversations with Productive Scholars Video Series* and (2) *the Research Lab Spotlight series*.

Sarah is a PhD student in Educational Psychology and Leadership Studies at the University of Victoria. Prior to joining Dr. Allyson Hadwin's Technology Integration and Evaluation Lab in 2015, Sarah worked as a teacher and school counsellor in private and public schools in both rural and urban settings in Canada, the US, and England. These rich experiences contributed to her research interests in self-regulated learning, mental health, learning analytics, and measurement and evaluation. Her doctoral research examines how students leverage self-regulated learning strategies and processes to optimize their mental health around academic challenges.

Laith Jumah

Our graduate student members, and indeed all graduate students who are interested in research around self-regulated learning, are encouraged to attend all of our SIG's events during this year's AERA conference in Toronto. We are planning on having a brief get together after the business meeting in Toronto. This short meeting is aimed at creating opportunities for networking among graduate students. It will also enable us to hear any suggestions from you.

Meanwhile, try and renew your membership if you have not done so.

Stay tuned as the conference draws nearer and we look forward to seeing you all there!

Sincerely, Laith Jumah and Aloy Anyichie, Graduate Student Committee Co-Chairs

Dr. Aloy Anyiche