AERA SIG Studying and Self-Regulated Learning

SSRL SIG Times Magazine

Vol. 3 Issue 3 March 2020

Dr. Taylor W. Acee (Senior Chair) & Dr. Pamela F. Murphy (Junior Chair)

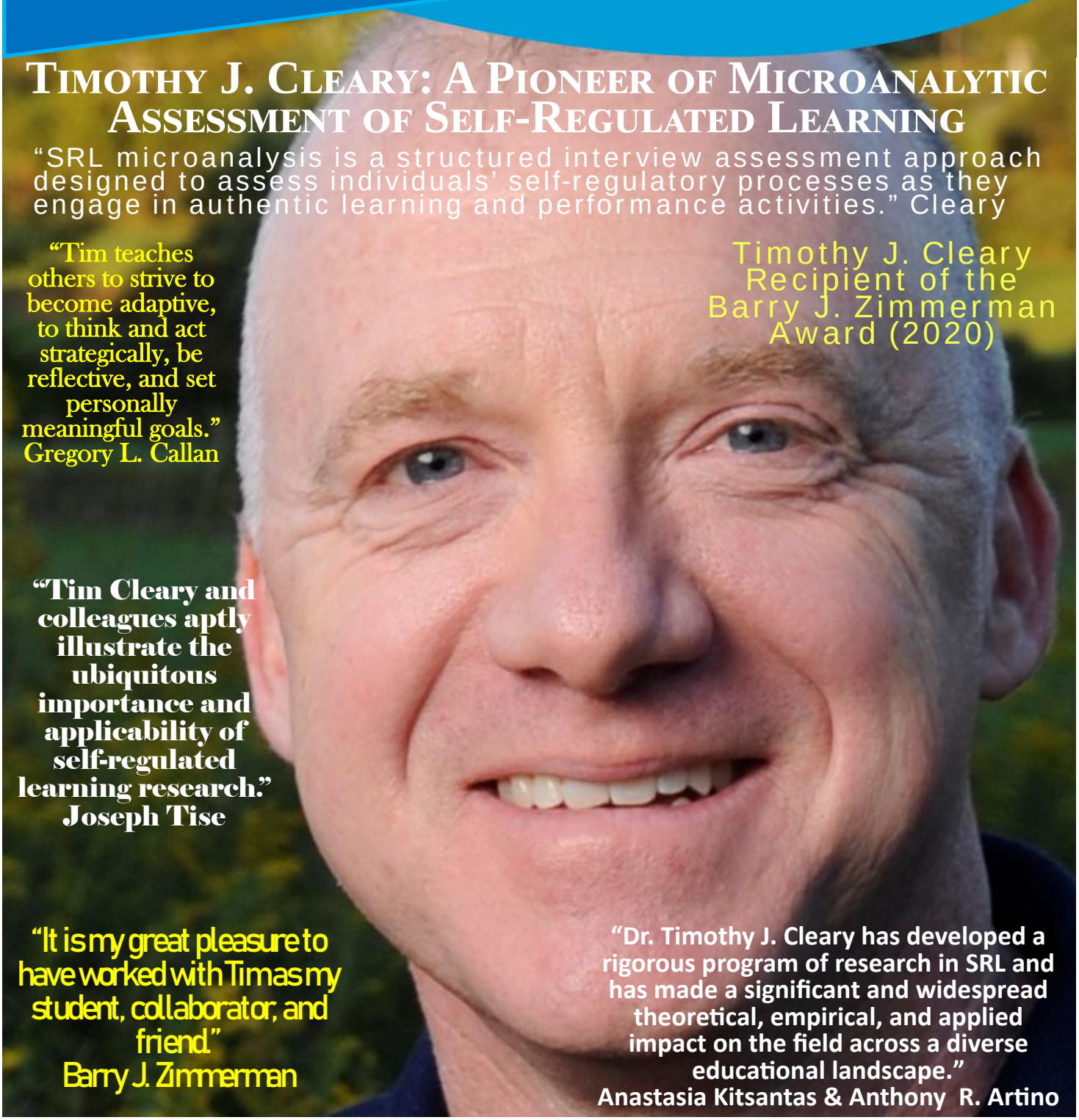
Dr. Héfer Bembenutty (Editor-in-Chief, Content & Graphic Editor)

Timothy J. Cleary: A Pioneer of Microanalytic Assessment of Self-Regulated Learning

"SRL microanalysis is a structured interview assessment approach designed to assess individuals' self-regulatory processes as they engage in authentic learning and performance activities." Cleary

"Tim teaches others to strive to become adaptive, to think and act strategically, be reflective, and set personally meaningful goals."
Gregory L. Callan

Timothy J. Cleary
Recipient of the
Barry J. Zimmerman
Award (2020)



"Tim Cleary and colleagues aptly illustrate the ubiquitous importance and applicability of self-regulated learning research."
Joseph Tise

"It is my great pleasure to have worked with Tim as my student, collaborator, and friend."
Barry J. Zimmerman

"Dr. Timothy J. Cleary has developed a rigorous program of research in SRL and has made a significant and widespread theoretical, empirical, and applied impact on the field across a diverse educational landscape."
Anastasia Kitsantas & Anthony R. Artino

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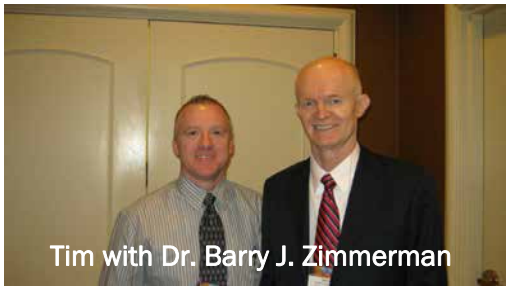
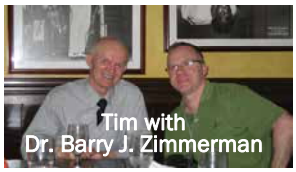
Barry J. Zimmerman: Congratulations, Tim! Recipient of the Barry J. Zimmerman Award (2020)


Dr. Barry J. Zimmerman

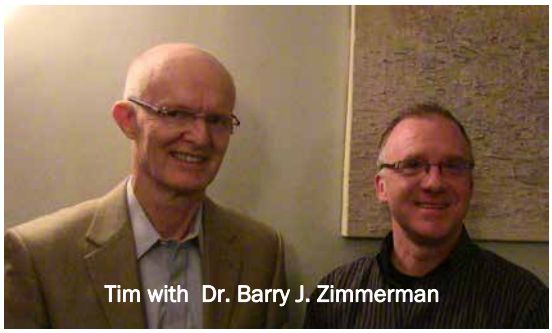
"I would like to congratulate Tim Cleary for his reception of this award for outstanding contributions in self-regulated learning. Tim is especially well known for his applied research in which he assisted teachers to instill self-regulatory processes in their students -- often in challenging contexts and often with struggling students. Because of his creativity and ability to "think outside the box," Tim is widely perceived as a leading proponent of applied self-regulation intervention programs. Whether the task is personal health, sport proficiency, or academic functioning, self-regulatory interventions and practice techniques are essential to becoming more proficient. Tim's use of micro-analytic techniques to develop and adapt new measures for teachers has been a major contribution to the field. Motivationally, Tim is a dynamic self-starter who is fully committed to providing both teachers and students with a strong sense of self-efficacy to make a difference in their lives. This award recognizes Tim's extraordinary successes in attaining of these laudatory humanitarian outcomes. It is my great pleasure to have worked with Tim as my student, collaborator, and friend."


Tim with Dr. Barry J. Zimmerman


Tim with Dr. Barry J. Zimmerman and Ms. Diana Zimmerman


Tim with Dr. Barry J. Zimmerman


Tim with Dr. Barry J. Zimmerman


Tim with Dr. Barry J. Zimmerman

Barry J. Zimmerman Award for Outstanding Contributions

Purpose and Description: This annual award is being established to honor mid-career and senior scholars who have made significant contributions to the fields of studying and self-regulated learning research. The focus of the award is to recognize a researcher who has developed a programmatic area of research that has made a strong theoretical, empirical, and applied impact on the field. Barry J. Zimmerman is among the most prolific and important figures in the fields of studying and self-regulated learning and is an AERA fellow. He is also one of the founders of the Studying and Self-Regulated Learning SIG (For more details, please visit see https://ssrlsig.org/).

Committee: Linda Bol (Chair), Phil Winne, Jeffrey Greene, & Karen Harris

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Biography: Dr. Timothy J. Cleary

Dr. Timothy J. Cleary is an Associate Professor in the Graduate School of Applied and Professional Psychology (GSAPP) at Rutgers, The State University of New Jersey. He obtained his Ph.D. from CUNY Graduate School in 2001 and began his professional career working as a licensed school psychologist in the public school sector. He served as assistant and associate professor at the University of Wisconsin – Milwaukee before relocating to Rutgers in 2012.

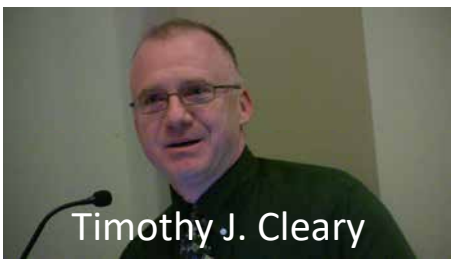
Dr. Cleary's primary research interests include the development and application of self-regulated learning (SRL) and motivation assessment and intervention practices across academic, athletic, medical, and clinical contexts. Specifically, he has examined trends in school-based SRL assessment and intervention practices, developed and validated several types of SRL assessments (i.e., self-report, teacher rating scales, parent rating scales, microanalytic protocols), developed and tested innovative academic intervention programs (Self-Regulation Empowerment Program (SREP), and investigated links among SRL processes and performance indicators. He has published approximately 55 peer-review journal articles and book chapters on SRL issues and applications, has edited 2 scholarly books, and recently authored a research-to-practice book for K-12 teachers, *The Self-Regulated Learning Guide: Teaching Students to Think in the Language of Strategies* (2018).

The majority of his publications have appeared in top-tiered journals across multiple fields, including school psychology (*Journal of School Psychology; School Psychology Quarterly*, *School Psychology Review*), educational psychology (*Metacognition and Learning*; *Journal of Educational Psychology)*, medical education (*Academic Medicine; Medical Education*), and sport psychology (*Journal of Applied Sport Psychology*).

Dr. Cleary's extramural grant funding is significant in both its quantity and quality, and most of his projects have been collaborative in nature. He is serving or has served as a Principal Investigator (PI) or co-PI on two large government grants: a $3.5M grant from the National Science Foundation using SRL theory and practices to help foster computational thinking, and a $2.9M grant from the Department of Education's Fund for the Improvement of Postsecondary Education. Dr. Cleary was also a collaborating investigator on a recent $1.5M grant from the Congressionally Mandated Medical Research Program, to better understand how practicing physicians make clinical decisions and diagnoses. Over the course of his career, Dr. Cleary has attained total grant funding of approximately $8.8M.

Dr. Cleary has taken on several leadership roles at the university level and across professional organizations. At both the University of Wisconsin-Milwaukee and Rutgers, Dr. Cleary has served as Director of Clinical Training, and took on the additional role of Department Chair at Rutgers. In terms of service at the national level, Dr. Cleary has served on the executive board for the Studying and Self-Regulated Learning Special Interest Group (SSRL SIG) of the American Educational Research Association (AERA), performing roles of Chair, Program Chair, and Secretary. He also performed the role of Chair for the Graduate Student Mentoring Program of the SSRL SIG for four years and has participated in various mentoring programs sponsored by NASP and Division C of AERA.

Dr. Cleary has served on editorial boards for school psychology journals (*Journal of School Psychology, School Psychology, Psychology in the Schools*) and educational psychology journals (*Journal of Educational Psychology, Journal of Experimental Education, Metacognition* and *Learning*) and served as a panel reviewer for IES grant for several years. Dr. Cleary is frequently asked to provide professional development workshops to school personnel, research, and psychologists across the country regarding the application of motivation and SRL principles.


Timothy J. Cleary

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Dr. Timothy J. Cleary's Three Primary Scholarly Themes

Dr. Anastasia Kitsantas & Dr. Anthony R. Artino

Over the years, Dr. Timothy J. Cleary has developed a rigorous program of research in SRL and has made a significant and widespread theoretical, empirical, and applied impact on the field across a diverse educational landscape that includes K-12 education, higher education, and health professions education. Specifically, Dr. Cleary's research has focused on three primary themes.

Theme 1 – SRL Assessment and Intervention Activities in Schools. Within this theme, Dr. Cleary has addressed an important "practice-gap" – the idea that effective SRL and motivation practices are often not routinely implemented in schools. To address this gap, he has conducted several studies to examine the perceptions and practices of educators regarding SRL assessments and interventions (Cleary, 2009; Cleary, Gubi, & Prescott; 2010; Cleary & Zimmerman, 2006). Collectively, these findings have directly impacted Dr. Cleary's research agenda because they propelled him to consider the importance of professional development training in schools, to develop an array of assessment tools capable of capturing different components of SRL (see Theme #2), and to create intervention programs that can be used to optimize the motivation and SRL processes of academically at-risk youth (see Theme #3).

Of primary interest to Dr. Cleary's current work is the development and evaluation of an applied SRL intervention, called the Self-Regulation Empowerment Program (SREP), in middle and high school contexts with disadvantaged and culturally diverse academically at-risk youth. SREP is a motivation and SRL intervention program designed to provide psychological and academic supports capable of enhancing the motivation and SRL skills of struggling students. To date, SREP has been applied to STEM content areas, such as biology (Cleary & Platten, 2013; Cleary, Platten, & Nelson, 2008) and mathematics (Cleary, 2015). In addition, based on SREP, he has provided numerous professional development workshops to school-based practitioners who are interested in enhancing student SRL

Theme 2 – SRL Assessment Methods and Tools. In addition to exploring trends in SRL practices in K-12 schools, Dr. Cleary has developed several types of SRL assessment tools. In fact, a fundamental objective of his research has been to develop both aptitude and event measures that would allow researchers to investigate student SRL using multiple methods and sources. In terms of aptitude measures, he developed the Self-Regulation Strategy Inventory (SRSI) system for school-aged children and adolescents (e.g., Chen, Cleary, & Liu, 2015; Cleary, 2006, Cleary & Callan, 2014; Cleary & Chen, 2009; Cleary, Dembitzer, & Kettler, 2015). This innovative assessment system collects multi-source, self-report data from parents, teachers, and students. In addition to collecting reliability and validity evidence for these measures, his research has supported a key premise in school psychology practice that using a multi-method, multisource assessment system is an effective way to develop hypotheses about student functioning and behaviors in school.

In terms of event measures, Dr. Cleary has been a leader in developing and refining SRL microanalysis (Cleary, 2011; Cleary, Callan, Malatesta, & Adams, 2015; Cleary Callan, & Zimmerman, 2012). This contextualized measurement approach is designed to generate quantitative and qualitative data about students' strategic approach to learning/performance. To date, Dr. Cleary has applied microanalysis to study SRL processes across many tasks and populations, including mathematics problem-solving in middle school students (Callan, & Cleary, 2015), test preparation with middle school and college students (Cleary, Callan, Malatesta, & Adams, 2015; Cleary & Platten, 2013), and diagnostic reasoning in medical students and practicing physicians (Artino, Cleary, & Dong, 2014; Cleary, Dong, & Artino, 2016; Cleary, Konopasky, Battista, Ramani, Durning, & Artino, under review). SRL microanalysis is becoming an increasingly popular assessment approach with researchers because of its potential for uncovering diagnostic and qualitative information about how students regulate during critical learning activities. For example, in the field of medicine, SRL microanalysis is now being used to help medical trainees better prepare for high-stakes medical licensing exams.

Theme 3 – Exploring the Impact of SRL Processes on Outcomes. A final core theme of Dr. Cleary's program of research involves examining the links between SRL processes and performance outcomes. Across several ex post facto and correlational studies, he has shown that middle and high school students' use of regulatory strategies reliably differentiates achievement groups (Cleary, 2006; Cleary & Chen, 2009). A more recent study (Cleary & Kitsantas, 2017), which used SEM analyses, showed that SRL behaviors exerted a unique, direct effect on mathematics classrooms and was a reliable mediator of the relation between several other variables (e.g., SES, self-efficacy) and achievement.

To date, Dr. Cleary has published more than 40 peer-reviewed journal articles, 20 book chapters, one solo-authored book and two edited books, and much of his work has been published in top-tier journals across several different fields. Supplementing his publications are more than 60 presentations given at national and international meetings, as well as numerous invited lectures and professional development workshops conducted at colleges, school districts, and other organizations. It should be noted in the past two years alone he has produced 16 publications including seven journal articles, eight book chapters, and one solo-authored book.


Anastasia Kitsantas


Anthony R. Artino

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AN INTERVIEW WITH DR. TIMOTHY J. CLEARY

A Leading Proponent of Applied Self-Regulated Learning Intervention Programs and Microanalytic Assessment Techniques (Excerpt)

Héfer Bembenutty, Editor-in-Chief

Bembenutty*: You have written about self-regulated learning (SRL) microanalysis. What is self-regulated learning microanalysis? Can you please give me a historical overview of the self-regulated learning microanalysis?*

Cleary: SRL microanalysis is a structured interview assessment approach designed to assess individuals' self-regulatory processes as they engage in authentic learning and performance activities. In one sense, it is similar to a self-report measure because it elicits information directly from students—that is, the students are the source of the assessment information. However, this approach is much more similar to an event type of measure in that the protocols are directly linked to specific tasks and are administered as individuals approach, engage in, and reflect on their performance on these tasks. Microanalytic protocols also tend to rely on open-ended questions and coding of qualitative responses to understand the nature of self-regulation, which is quite a distinction from most Likert-type self-report measures.

SRL microanalysis has its roots in several important theoretical developments of the 1960s and 1970s. At a general level, this approach is largely grounded in social-cognitive theory. Albert Bandura used the term *microanalysis* in a series of intervention studies examining self-efficacy beliefs of individuals with snake phobias. His focus on a highly explicit and contextualized definition of competency perceptions as well as his consideration of temporal sequencing when administering this measure (i.e., prior to engaging in the target behaviors) are consistent with contemporary microanalytic procedures. Further, the emergence of cognitive-behavioral therapies in the 1960s and 1970s as well the use of think aloud paradigms were important precursors to SRL microanalysis because of their emphasis on measuring contextualized human cognition as it naturally unfolded in authentic contexts. The basic premise is that when one is able to generate information about how people think and react in specific contexts or situations, there is great potential to restructure their faulty belief patterns and to instill more effective ways of approaching or thinking about a particular situation. A more recent influence on the development of SRL microanalytic methodology has been the increased emphasis on conceptualizing self-regulation as a dynamic, context-specific process rather than a fixed, stable entity. From my perspective, it is important that measures designed to assess a particular construct should reflect or be consistent with the conceptualization of that construct. If one espouses that SRL is a contextualized process, then one should use measures like SRL microanalysis that can adequately capture that process. It is important to note, however, that one may legitimately also be interested in examining students' global or "on average" SRL approach to academic tasks. In these instances, other assessment approaches such as self-report questionnaires or teacher rating scales may be particularly valuable.

Bembenutty*: What are the essential features of the self-regulated learning microanalysis?*

Cleary: There are several essential features of SRL microanalysis. The most important characteristics involve identifying target regulatory processes based on Zimmerman's three-phase cyclical model, developing and or using context- and task-specific questions developed from operational definitions of key regulatory subprocesses (e.g., goal-setting, attributions), and directly linking the cyclical phase dimension of SRL to the temporal dimensions of the task. This latter point is particularly important, and the one that I would like to focus on.

In developing a microanalytic protocol, one must first identify a clearly defined task of interest, such as solving math problems on a worksheet, reading a text passage, or practicing shooting free-throws. The key idea is for the tasks to have a clear beginning, middle, and end. Because Zimmerman's three-phase cyclical model parallels this notion of a before, during, and after process, one can directly link forethought, performance, and self-reflection questions to the temporal dimensions of the task. Thus, forethought phase questions such as goal-setting and strategic planning should be linked with the before task dimension, whereas self-evaluation and attribution questions should be administered following some performance outcome or when the task is completed. This merging of the cyclical phases of self-regulation with the natural process of task completion allows one to draw more meaningful and informative inferences about how students regulate their learning or performance as they complete specific tasks than one would be able to if students were asked to retrospectively provide information about SRL behavior.

Bembenutty*: Is there any evidence supporting the use of self-regulated learning microanalysis?*

Cleary: This program of research is still very much in the early stages of development and refinement. Over the past decades, an increased number of SRL microanalytic studies have been published. However, there has been much variation in terms of the number of regulatory processes targeted in any given study. Zimmerman and Kitsantas conducted a series of studies that served as precursors to the comprehensive microanalytic studies that would follow in subsequent years (e.g., Kitsantas & Zimmerman, 1998; Kitsantas, Zimmerman, & Cleary, 2000). In these experimental studies, self-motivation beliefs were used as dependent variables, with attributions serving as the lone reflective phase process. In 2001 Professor Zimmerman and I sought to expand this focus and published an article involving the use of SRL microanalytic methodology to examine multiple forethought phase processes (i.e., goal-setting, planning) and self-reflection processes (i.e., attributions, adaptive inferences).

To get to your question, however, there is much reliability evidence supporting the use of open-ended questions as part of microanalysis. That is, the level of inter-rater agreement, as measured by percent agreement and or kappa coefficients, between independent coders has been very high (see Cleary, Callan, & Zimmerman, 2012). In terms of validity evidence, we have shown many microanalytic questions, such as goal-setting, strategic planning, and attributions, to reliably differentiate expertise or achievement groups (Cleary et al., 2012; DiBenedetto & Zimmerman, 2010, 2001). There is also evidence for the predictive validity of microanalytic protocols. In the first study to examine sub-processes within all three phases of the cyclical loop, Kitsantas and Zimmerman (2002) showed that a composite microanalytic score predicted approximately 90% of the variance in volleyball serving skill. In addition, similar to research showing that event measures of SRL do not often correspond to student reports of SRL, we recently found that student responses to microanalytic strategic planning questions did not correspond well to student responses on questionnaires tapping similar processes and exerted a greater influence on subsequent test performance than the self-report questionnaires (Cleary & Callan, 2014).

Bembenutty, H. (2015). An interview with Dr. Timothy J. Cleary: A leading proponent of applied self-regulated learning intervention programs and microanalytic assessment techniques. *Contemporary Pioneers in Teaching and Learning* (pp. 135-151). Charlotte, NC: Information Age Publishing.

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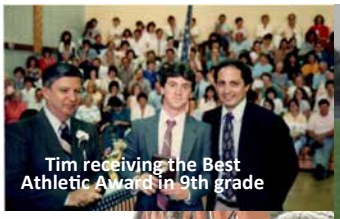
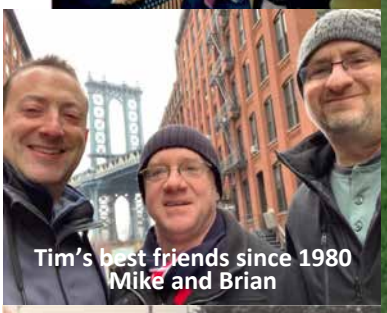
Dr. Timothy J. Cleary: "Once Upon a Time, I was...!"

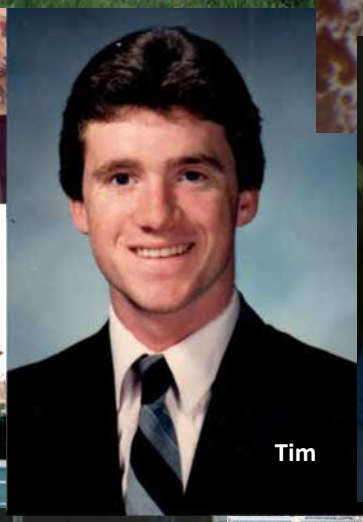

Tim receiving the Best Athletic Award in 9th grade

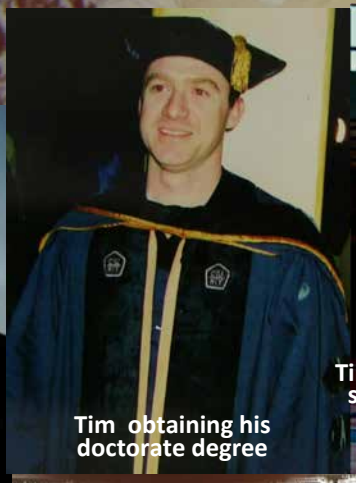

Tim playing baseball

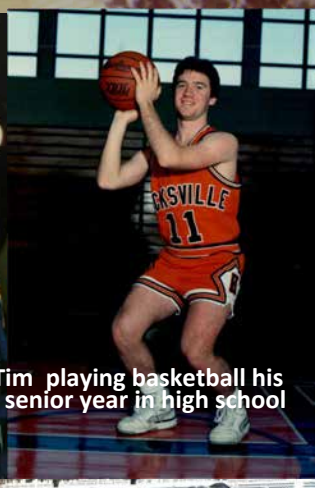

Baby Tim


Tim's best friends since 1980 Mike and Brian

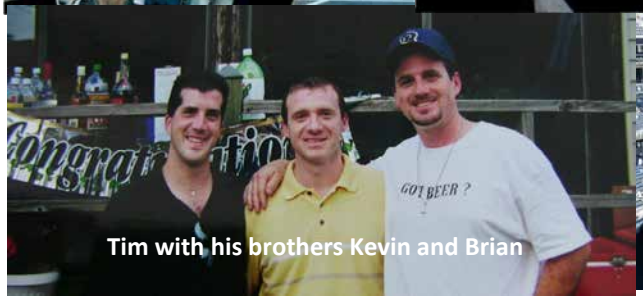

Tim with his school band


Tim


Tim obtaining his doctorate degree


Tim playing basketball his senior year in high school


Tim with his parents Carol and Don


Tim with his brothers Kevin and Brian


Tim with his father Don and his two brothers Kevin and Brian

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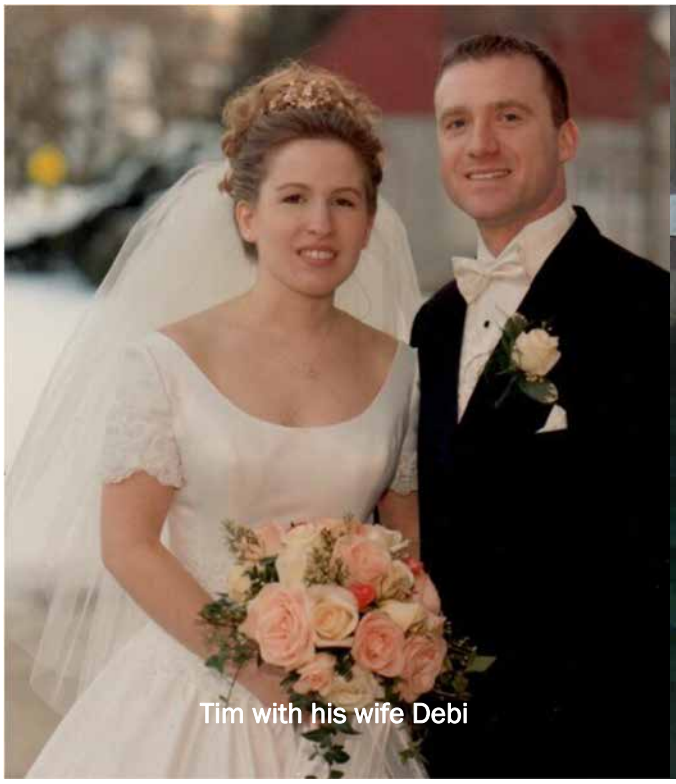
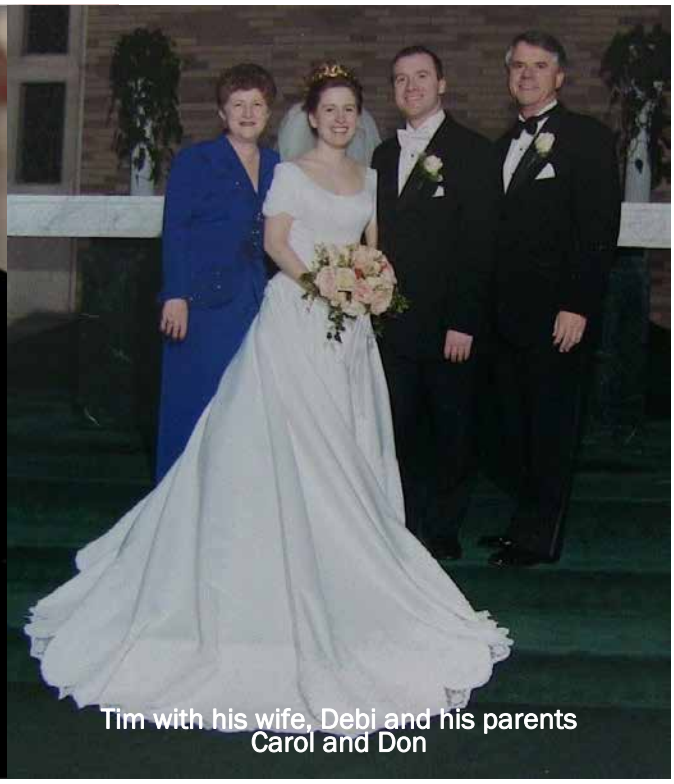
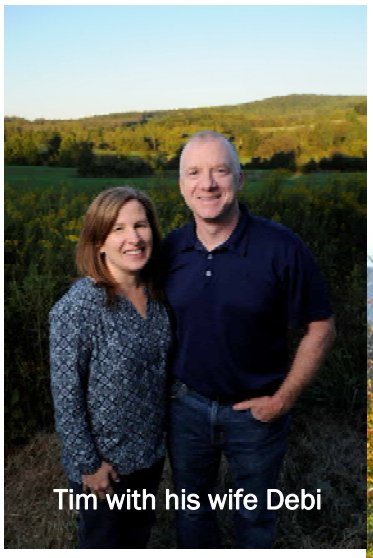
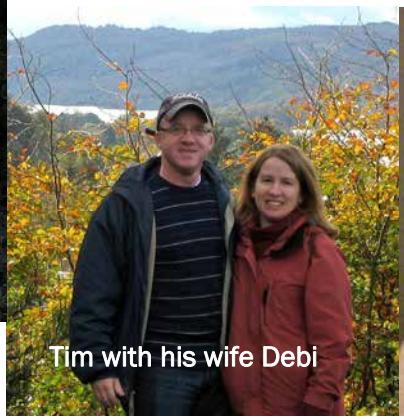
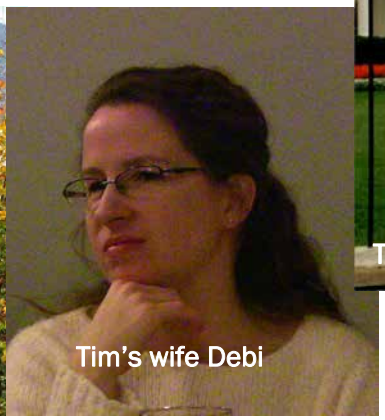
Dr. Timothy J. Cleary: "The Love of My Life!"


Tim with his wife Debi


Tim with his wife, Debi and his parents Carol and Don


Tim with his wife Debi


Tim with his wife Debi


Tim's wife Debi


Tim with his wife Debi

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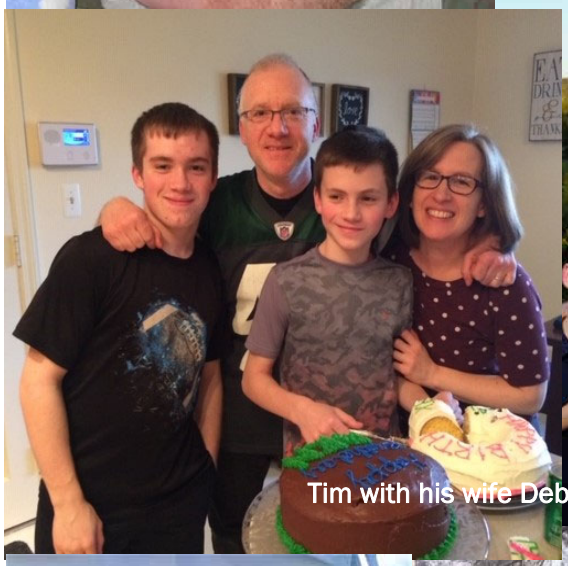
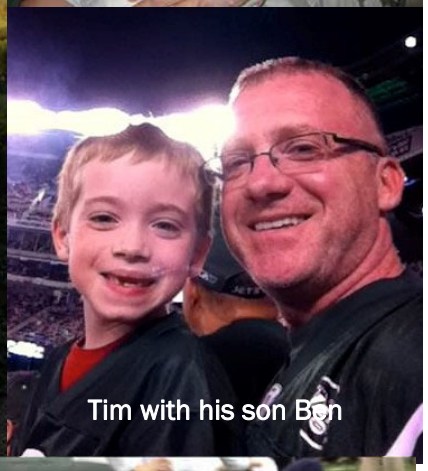
Dr. Timothy J. Cleary: "The Story of My Life!"


Tim with his son Ben


Tim and his wife Debi leaving the hospital with their son Ben

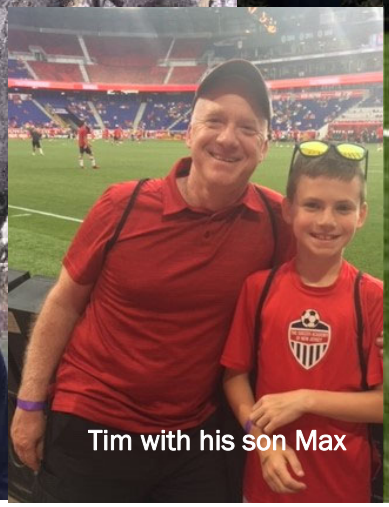

Tim and his wife Debi with their new born son Max

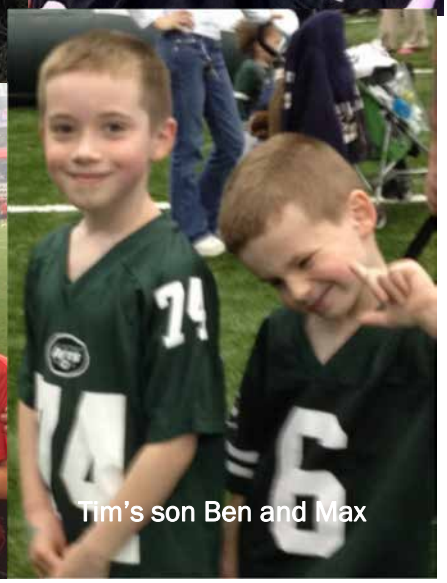

Tim with his wife Debi and sons Ben and Max


Tim with his son Ben


Tim with his son Max


Tim's sons, Ben and Max


Tim with his son Max


Tim's son Ben and Max

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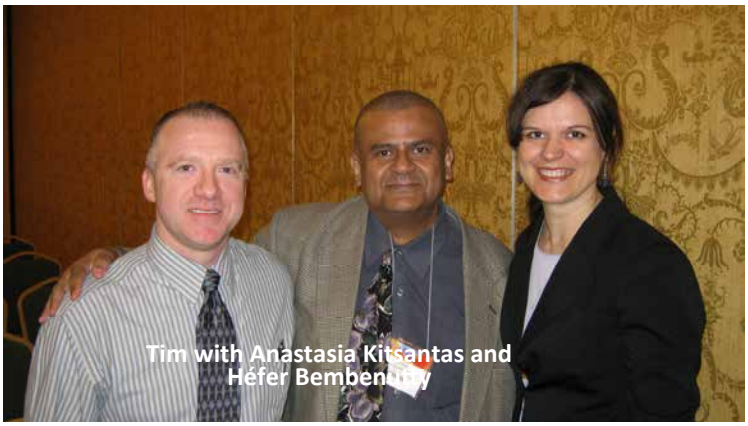
Dr. Timothy J. Cleary: "My SRL Family!"


Tim during a dinner celebration with Dr. Barry J. Zimmerman and colleagues

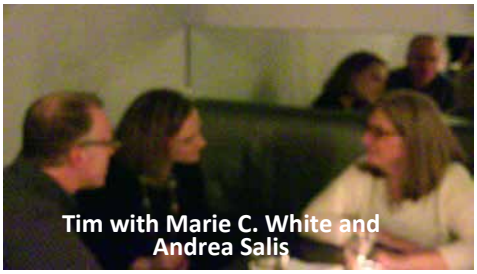

Tim with Anastasia Kitsantas and Héfer Bembenutty


Tim with Dr. Barry Zimmerman, Diana Zimmerman and Anastasia Kitsantas, and Héfer Bembenutty


Tim with Roger Azevedo


Tim with Héfer Bembenutty


Tim with Anastasia Kitsantas


Tim with Marie C. White and Andrea Salis


Tim with Maria K. DiBenedetto


Tim with Diana Zimmerman Anastasia Kitsantas and Héfer Bembenutty

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Dr. Timothy J. Cleary: Collaborator and Mentor

Erin Peters-Burton, *George Mason University*

Tim Cleary has been an inspiration to me since I began doing educational research in 2007. When I first started, I cited his work in multiple papers and attended his talks at AERA. Although it was not until 2013 when I first met him. I was presenting a paper on an SRL microanalysis study that I did with teachers during a professional development. I was about a third of the way through the presentation when he popped in the door to listen. He stayed for a bit but then left before I finished. I remember that my first reaction was that he hated it, so he left. At the time, I was questioning my future in SRL. I ran into him later that day and asked why he left. Tim told me that during that time slot, he was also presenting a paper – and only had time to come and see a bit of it. That is how dedicated Tim is to educational research – he would step out of his paper set to come and see a paper from a new researcher.

I asked Tim to read my paper on an SRL microanalysis study and give me feedback. Without a breath, he agreed. I am sure he was swamped, but he did not hesitate to offer to read a paper from someone he did not even know well. That is a small example of his generosity and dedication to the field.

Since that initial encounter, we have been working closely together, and Tim has been an irreplaceable mentor to me. I am fortunate to be able to co-author work with Tim. His focus and clarity have made me a better writer.

Now we work on a sizeable NSF-funded grant together, where we are supporting student computational thinking in high school science with self-regulated learning processes. Tim's skill in seeing ten steps ahead in great detail has helped the project to be a success. Tim can take a close look at measures, interview protocols, and written work and offer revisions to make products the best they can be.


Erin Peters-Burton

The project that Tim and I work on is a researcher-practitioner partnership, where our large research group works with a large teacher group to create our products. Tim's professional development offerings were packed with meaningful information and examples. The teachers reported that they were all inspired by his ideas. Tim was his usual kind, passionate, and knowledgeable self, making sure that everyone felt comfortable, no matter their level of understanding.

Tim is an example for us all - a careful, methodical, thoughtful researcher, and perhaps most importantly, a caring person.

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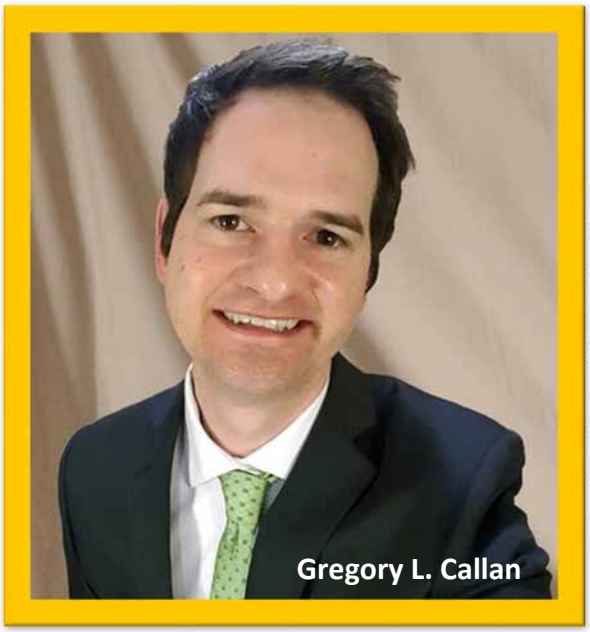
Dr. Timothy J. Cleary: My Mentor and Collaborator

Gregory L. Callan, *Utah State University*


Gregory L. Callan

I have been fortunate to work with Tim over the last 11 years as my advisor, mentor, collaborator, and friend. Although Tim is often recognized for his robust and innovative research, his skills as a teacher, mentor, and collaborator are incredible and deserve praise as well. Tim invests a lot of time and energy mentoring his students and our AERA SSRL SIG members. For instance, for more than five years, he has stepped up as a leader of the SSRL's Graduate Student Mentoring Program. Those who have received mentorship from Tim will agree that he stands out. One of the first things that people notice is that Tim is approachable, down to earth, and friendly. He authentically cares about other people, gives of his time selflessly to help others succeed, and celebrates their successes.

Beyond Tim's personality and selflessness, he is a great researcher, teacher, mentor, and collaborator because he acquires and shares wisdom. I have gained essential wisdom from working with Tim: he teaches others to (a) become self-regulated learners, (b) be detail-oriented, (c) take on new challenges, and (d) think from a new perspective.

Tim teaches others to strive to become adaptive, to think and act strategically, be reflective, and set personally meaningful goals. The latter point regarding goals is particularly important and telling of Tim's mentorship. When I first met Tim, he was an assistant professor. Although pressures to publish are intense for junior faculty, Tim always had the time to help me identify the goals that were important to me.

In addition to helping teach others to be self-regulated learners, Tim is likely the most detail-oriented person I have ever met. Likewise, he conducts and consumes research at a fine-grained level. To illustrate, much of Tim's research utilizes SRL microanalytic interviews that measure SRL processes (a) with one well-designed question, (b) at a brief moment in time, and (c) concerning a single task of interest. Before working with Tim, I was unaware that the fine-grained details were some of the most important and exciting parts of research, but I have since learned to focus on these details.

Tim takes on challenging projects and encourages others to do so as well. He asks significant, challenging, critical, and new questions with every project that he begins. As a result, Tim and his mentees are continually learning. It is not always easy, but when you collaborate with Tim, you both will learn a lot through an iterative and collaborative process.

Tim's background and training as a school psychologist are rare within the SSRL community. As a result, he has a unique perspective to share as a mentor and researcher. I encourage others to get to know more about Tim's perspective because it will positively impact your conceptualization of SRL.

In closing, Tim is an excellent asset to our AERA SSRL SIG community. We are lucky that he is so giving with his time and talents. I look forward to continuing to learn with Tim in the years to come.

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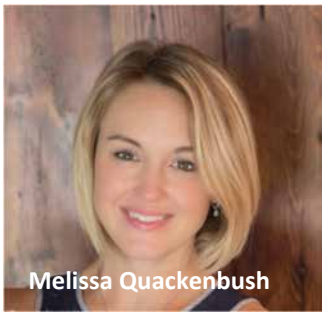
Dr. Timothy J. Cleary: My Mentor in the Mentoring Program

Melissa Quackenbush, *Old Dominion University*


Melissa Quackenbush

My selection into the 2019 SSRL SIG's Graduate Student Mentoring Program was fortuitous. Having never attended an AERA conference before, my arrival in Toronto from New Jersey last April felt as abrupt and brisk as the Spring the city was experiencing. Surrounded by hundreds of educators, researchers, and psychologists, I searched for a form of familiarity as my fingers leafed, and my eyes lingered through the countless presentations delineated in the thick conference catalog. Just as my Uber from the airport pulled up to the Convention Center, I found Dr. Timothy Cleary's name, and as fate would have it, his session was about to start. In a packed conference room, I found a seat just as Dr. Cleary began his presentation on the social validity perceptions of advisors regarding the DAACS intervention program at Rutgers University. Finally, a little bit of home away from home.

Dr. Cleary's presentation was spot on as he enumerated the various findings, strengths, limitations, and areas of future direction for the University's Advising Program. While his polished public speaking skills and scholarship were undoubtedly impressive, Dr. Cleary stood out from the other presenters in the session for his authenticity, humility, and humor. During the Q&A portion of the event, Dr. Cleary responded to questions confidently and even managed to build rapport quickly with others in the room. I immediately realized just how lucky I was to find myself at this event and partnered with such an incredible mentor for the next two days. I was already learning so much, and I had not even met him yet.

Finally, in the lobby of a nearby hotel, I had the privilege of connecting with Dr. Cleary over the best cup of tea in North America. While the beverage warmed my cold fingers, my conversation with Dr. Cleary thawed frozen anxieties and assured me I would find my way in this new world of academia. I ended my first night at AERA hopeful and inspired thanks to Dr. Cleary's wisdom and mentorship.
The next day was sunnier - literally and figuratively - as the SIG's Graduate Student Mentoring lunch commenced at the coolest Jamaican restaurant downtown. Among lemon water and sweet tea, the table filled with many of the field's most productive and influential scholars and other graduate students, who - like me - perhaps felt like a fledgling floundering to find familiar footing. As chatter and laughter filled the air and lunch filled our stomachs, Dr. Cleary again led the group from introductions to discussions until our time too quickly came to a close. Upon dessert, Dr. Cleary had managed a sweet miracle; we had all arrived as strangers, but we left as friends bonded by our love of life-long learning.

In the last year, I have come to know Dr. Cleary as a man who wears many hats - psychologist, professor, researcher, writer, father, husband, colleague, and friend. While he shifts expertly among these various roles, the qualities that never change are Dr. Cleary's generosity of spirit and empathy for others, which contribute to his professional achievements and accomplishments. During one of our last conversations, Dr. Cleary shared wisdom imparted from his mentor, Dr. Barry Zimmerman, "Always be grateful for the gift of relationships and time spent with others." Of all the lessons I have learned along my journey as a graduate student, I am most grateful and fortunate to have learned this from my mentor, Dr. Timothy Cleary, and I am most grateful for the invaluable connections I made during the SIG's Graduate Student Mentoring Program.

You could watch Melissa's interview with Dr. Cleary in our AERA SSRL SIG website (https://ssrlsig.org/2019/11/14/new-interview-with-dr-timothy-j-cleary/)

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Dr. Timothy J. Cleary: The Self-Regulation Empowerment Program

Jacqueline Slemp, *Rutgers University*

Dr. Timothy Cleary has served as my advisor, professor, and dissertation chair throughout my time at the Graduate School of Applied and Professional Psychology at Rutgers University. During this time, he has been a role model and mentor for me and has guided me through my academic, research, and fieldwork experiences. Dr. Cleary has taught me the ins and outs of self-regulated learning (SRL) and its many applications for school psychologists, students, and teachers alike.

Through the use of a mixed-methods approach, the article "Effectiveness of the Self-Regulation Empowerment Program with Urban High School Students" (*Journal of Advanced Academics*, 2008) targets the effectiveness of an intervention for a high-risk population. Dr. Cleary and his colleagues emphasize that the Self-Regulation Empowerment Program (SREP) is a promising intervention given it has demonstrated an impact on academic and regulatory functioning. As discussed in the article, given the increased demand for independence in secondary school high schoolers are faced with many challenges. Youth in urban settings are uniquely vulnerable given several environmental stressors they may be experiencing in addition to typical changes as a result of their school progression. Dr. Cleary's dedication to expanding the available resources to urban high school youth is meaningful, as there is a dearth of evidence-based interventions on self-regulation and motivation to meet the needs of this population.


Jacqueline Slemp

While addressing the social validity of SREP is not the sole focus of this article, I highlight it here, as it is an essential component of program implementation and evaluation. This research illustrated that not only does SREP result in adaptive changes in test scores and regulatory functioning, but teachers, parents, and students view this intervention favorably.

Throughout my time working with Dr. Cleary, it has become evident that the concept of social validity is one that underlies much of the work that he does. Understanding the views of stakeholders is essential to creating an effective intervention. If students, teachers, parents, and administrators do not see the value of an intervention and its potential benefits, it is unlikely that the intervention will be implemented as intended, resulting in less adaptive outcomes. This article demonstrates that stakeholders involved in SREP view this intervention favorably, indicating that this program has the potential to make a difference in our schools.

Looking forward, I highly recommend continued implementation of SREP in other settings and contexts in order to further the research on the effectiveness of this program and to help more of our students succeed. Dr. Cleary has paved the way in SRL research and has created an intervention that has been shown to have an impact. Through linking research with practice, Dr. Cleary has not only highlighted the importance of SRL interventions but has also created tangible and explicit resources for practitioners to intervene and provide students with the resources they need to reach their full potential.

Cleary, T. J., Platten, P., & Nelson, A. (2008). Effectiveness of the self-regulation empowerment program with urban high school students. *Journal of Advanced Academics*, *20*(1), 70-107. https://doi.org/10.4219/jaa-2008-866

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A Tribute to Dr. Timothy J. Cleary

Bracha Schnaidman, *Concordia University*


Bracha Schnaidman

It is a privilege to take part in honoring Dr. Timothy J. Cleary for his contributions to the profession. As a recent alum of Rutgers University Graduate School of Applied and Professional Psychology, I worked closely with Tim as a research assistant and doctoral dissertation student. Tim introduced me to the world of research and the world of self-regulated learning (SRL).

Tim is, first and foremost, an exemplar of professionalism and dedication. As his student, I knew that he cared about my journey as a developing researcher and that he viewed each hurdle along the way as a step towards a larger goal.

As I reflect on my years working with Tim and what I gained from experience, one salient point comes to mind. Tim always focused on the *process*. He emphasized process in the purposeful way in which he chose and scaffolded the tasks and responsibilities that he delegated. Tim gave prominence to the process by including other students and me in various aspects of his research endeavors, and by guiding us to work toward independent scholarship and attribute our growth to the effort we had invested. Integral to Tim's approach was the feedback he provided, always thoughtful, and geared towards making the process as enriching and meaningful as possible.

Tim's research on SRL microanalysis (Cleary, Callan, & Zimmerman, 2012) highlights the characteristics that distinguished his mentorship. *SRL microanalysis* is a contextualized, fine-grained assessment approach that evaluates students' use of self-regulatory processes while engaged in a specific learning task. SRL microanalysis follows a process-oriented theory of self-regulation and assesses specific subprocesses at each of Zimmerman's three cyclical phases: Forethought, Performance, and Self-reflection. For instance, SRL microanalysis can evaluate students' causal attributions after a task to gain insight into their beliefs about why they performed the way they did. SRL microanalysis is unique because, unlike many other assessment methods, in that, it focuses on students' use of regulatory behaviors with authentic learning tasks (Cleary et al., 2012). Tim's approach to teaching and advising was well aligned with many of these features: The focus on process and context, the emphasis on learning through real-life, relevant tasks, and the prominent role of strategic attributions.

Learning is a lifelong endeavor, not confined to the world of classrooms and academia, and the process model of SRL applies to most any task in which humans need to self-direct and manage their behavior. Particularly in the current circumstances with the outbreak of COVID-19 and the enormous ramifications it brings, there is a need to regulate one's thoughts, affect, and actions, and to adapt to changing demands in a self-directed and purposeful manner.

I feel fortunate to have the stellar example set by Tim's teaching and modeling. I strive to impart his values and perspectives to my students and clients. Thank you, Tim, for the guidance you have given me and for supporting me on the journey of learning how to become a better learner.

Cleary, T. J., Callan, G. L., & Zimmerman, B. J. (2012). Assessing self-regulation as a cyclical, context-specific phenomenon: Overview and analysis of SRL microanalytic protocols. *Education Research International*. doi:10.1155/2012/428639.

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Dr. Timothy J. Cleary: Thinking in the Language of Strategies

Erica Pawlo, *Warren Township Public Schools*

In the article "Effectiveness of the Self-Regulation Empowerment Program with Urban High School Students" (*Journal of Advanced Academics*, 2008), Dr. Timothy Clearly and his co-authors describe a comprehensive self-regulated learning (SRL) intervention, the Self-Regulation Empowerment Program (SREP), and explore the effectiveness of SREP at improving students' grades, self-regulation, and motivation. Dr. Cleary is a vital contributor to the field of SRL not only due to his extensive research on the link between SRL and achievement but also for his application of these principles to the development of a comprehensive, meaningful SRL intervention.

In the article, Dr. Cleary and his associates describe how SREP builds students' SRL skills through a comprehensive framework of guided practice sessions that address metacognitive, motivational, and strategy aspects of SRL. They argue that students need a metacognitive framework in order to evaluate their strategy use and increase their motivation for success. Furthermore, Dr. Cleary posits that there is a need for comprehensive SRL interventions to build foundational skills that students can use to overcome obstacles and demonstrates that SREP can effectively begin to fill this need.

In my practice as a school psychologist in a public school, I find that many students lack the core self-regulation skills that would help them succeed, yet there is minimal instruction or practice of SRL strategies. This need for comprehensive SRL interventions is further emphasized in the unique, evolving world of online learning that has resulted from the novel Coronavirus. Although some of my students can learn sufficiently from home, and may even plan out their day or organize their time and environment effectively, most students are not equipped with the skills to think about their learning from a metacognitive perspective, develop a plan to use effective strategies, or reflect on their progress toward their online-learning goals.

In addition to the comprehensive nature of SREP, a critical aspect that is highlighted in the article is how SREP immerses students in the SRL framework while learning specific SRL skills; students are taught to work through metacognitive-to-strategy feedback loops and learn to "think in the language of strategies." It is this approach to SRL that Dr. Cleary exemplifies through his teaching and mentoring.

Dr. Cleary incorporates SRL principles into each lecture, assignment, presentation, and conversation so that his graduate students begin practicing SRL skills before, during, and after learning. For instance, Dr. Cleary would begin a class by asking students to reflect on what they learned previously and or what they need to learn. Throughout the lecture, he would highlight the most crucial information on his presentations and offer opportunities for summarizing and making connections. Lastly, he would end with reflections of what students did to learn and how well that helped them retain information. Throughout this process, Dr. Cleary would encourage students to explore ideas outside of their comfort zone, support curiosity and questions, and spend time discussing students' topics of interest.


Erica Pawlo

It is through these practices of "think in the language of strategies" that Dr. Cleary connected with his graduate students as a mentor, eliciting creativity and critical thinking along the way. Dr. Cleary has not only positively contributed to the SRL field through his comprehensive SRL intervention, but has also ecstatically encouraged students to think in the language of strategies, whether they are high school students participating in SREP or graduate students learning how to help others build their SRL skills.

Cleary, T. J., Platten, P., & Nelson, A. (2008). Effectiveness of the self-regulation empowerment program with urban high school students. *Journal of Advanced Academics*, *20*(1), 70-107. https://doi.org/10.4219/jaa-2008-866

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Timothy J. Cleary: Medical Students and Health Sciences Education

Joseph Tise, *Pennsylvania State University*

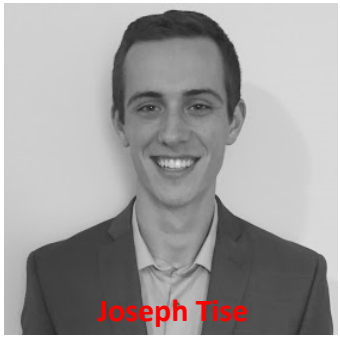
Tim Cleary and colleagues aptly illustrate the ubiquitous importance and applicability of self-regulated learning research in their 2019 article: "First-year medical students' calibration bias and accuracy across clinical reasoning activities" published in *Advances in Health Sciences Education.*

In this empirical study, the authors researched how two measures of calibration (bias and accuracy) differed between two clinical subtasks, examining patient history (Hx) and conducting a physical examination (PE). They also examined the stability of these calibration measures between the two subtasks. One key finding of the study was that nearly all students were overconfident in their performance estimations on both the Hx task (98% were overconfident) and PE task (95% were overconfident). Of additional interest was that the Hx and PE tasks were correlated regarding both calibration indices (bias and accuracy). That is, students who were over-confident in their Hx performance were also likely to be overconfident in their PE performance. Likewise, students less accurate in their Hx performance were also likely to be less accurate in their PE performance. A significant implication of this study is that when students struggle to perform and judge their performance on large and complex tasks, such as providing a clinical diagnosis, it may be fruitful to examine their performance calibration at a finer grain size—at the sub-task level.

As cited in the article, clinical diagnostic errors are the third leading cause of death. The ability to accurately judge one's performance is vital in any environment but could be a matter of life or death in the medical environment. Cleary and colleagues make this point clearly and powerfully with their study. As an emerging SRL researcher, I am excited to extend calibration research. Cleary and colleagues' article is an exemplar of how educational researchers, like me, can push calibration research forward within the medical setting. This article provides a unique perspective and several good suggestions for future avenues of exploration at this critical disciplinary juncture.

Our results support recent research in medical education indicating that while clinical reasoning can be conceptualized as a holistic process, there is value in also viewing it as a series of subtasks (Juma and Goldszmidt 2017). Further, it is important for medical educators and researchers to recognize that a range of skills is typically needed to succeed on most clinical activities, such as identifying symptoms, considering contextual factors, integrating data, and comparing and contrasting diagnoses during a patient encounter, and that novice learners may exhibit a distinct profile of skills, beliefs, and behaviors across different parts or situations of such activities (Sargeant et al. 2010). Thus, medical education researchers should not only seek to understand how clinicians' performance differs across subtasks in clinical reasoning, but also the quality with which they *think about* and *evaluate* that performance…

Finally, the current study suggests that health professional contexts can offer valuable insight into the broader discussion of calibration and metacognition in psychology and education. The sheer number of potential subtasks and complex processes involved in clinical reasoning (Juma and Goldszmidt 2017) offers a vibrant testing ground for theories about the component parts of calibration and the metacognitive strategies trainees and professionals use to actively adapt to emerging task complexity (Pieschl 2009).



Tim Cleary and his colleagues have helped address a significant deficit in the calibration literature. They have shown that it pays to question further how we may enhance education in many contexts. Furthermore, they have shown that applying educational research to new settings and contexts can be fruitful for instructors, students, and researchers. This study helped students and instructors identify one part of medical training to be improved, but also pushed forward our understanding of calibration as a construct and its measurement.

Cleary, T. J., Konopasky, A., La Rochelle, J. S., Neubauer, B. E., Durning, S. J., & Artino, A. R. (2019). First-year medical students' calibration bias and accuracy across clinical reasoning activities. *Advances in Health Sciences Education*, *24*(4), 767-781. https://doi.org/10.1007/s10459-019-09897-2

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Timothy J. Cleary: SSRL SIG Graduate Student Mentoring Program Chair (2014-2019)

We were planning for our sixth annual Graduate Student Mentoring Program (GSMP) for the Studying and Self-Regulated Learning Special Interest Group of AERA. As part of this initiative, graduate students should have had opportunities to receive mentoring from distinguished SRL scholars who share similar research interests. The program was going to be held concurrently with the Annual Meeting of AREA. Given the Corona virus disease new sweeping the United States and the world, AERA has cancelled its Annual Meeting. We look forward to our next year GSMP.

What are the primary objectives of the GSMP?

To support the development of a vibrant and supportive community of SRL scholars
To provide graduate students with opportunities to receive mentoring and advice from established scholars in the field
To provide professional networking opportunities for graduate students within the SSRL SIG community

Who is eligible to apply for GSMP?

All graduate students who are members of both AERA and the SSRL SIG are encouraged to apply for this mentoring program. The GSMP committee welcomes applications from all SSRL SIG graduate students, regardless of whether you are junior (1st or 2nd year) or more senior (3rd year and beyond) and if have an emerging or established program of research. We accept applications from all students, even if you participated in other AREA mentoring programs in the past or as part of the 2019 conference (e.g., Division C, Motivation SIG). Although the review committee would like to accept all applications, space is limited. Selection of graduate students will be based on a review of required materials (CV, research statement). Preference will be given to students who have yet to participate in the GSMP, but all students (regardless of their previous participation) are encouraged to apply.

We will be sending a formal Call for Applications to the SSRL listserv in November to convey additional information about the nature of the mentoring program, application materials, and specific deadlines. I am happy to correspond or speak with any graduate student who has an interest in the program, or faculty members and scholars who may wish to serve as an SRL mentor as part of this initiative.

Timothy J. Cleary with mentors and mentees during the Mentoring Program

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Mentors' Long-Lasting Influences on the Mentees

Dr. Timothy J. Cleary

Originally published on November 2019 in *Times Magazine*

Mentoring is an essential process through which an individual with more advanced expertise or knowledge guides, instructs, and promotes the development or growth of another individual. Although mentoring relationships can take on different forms and characteristics, they ultimately can have benefits for both the mentor and mentee (DiBendetto & White, 2013). In this short piece, I reflect on my personal experience as a mentor and share some thoughts about the AERA SSRL SIG Graduate Student Mentoring Program.

Mentoring Experience and Principles

Barry J. Zimmerman has served as my mentor and friend for the past twenty-five years. His skillful way of providing thought-provoking, timely, and personal feedback changed the entire trajectory of my career as well as my perspective on science and research. I was reminded of his influence during my recent visit with him, his wife Diana, and a couple of colleagues a few weeks ago. This visit was timely in drafting this article, in part, because we openly shared anecdotes about Dr. Zimmerman as "the mentor"; conversations which prompted me to reflect on two important and personally-meaningful mentoring principles. *First, the words expressed by a mentor can have deep and long-lasting influences on the lives of their mentees*. During this visit, I was struck by the level of detail with which my colleagues and I were able to recall specific conversations, advice, or comments made by Dr. Zimmerman, even as far back as the early to mid-1990s. In my current role as mentor, I always try to remember that the words that I convey to my doctoral students and mentees, regardless of how seemingly minor at the time, can have a lasting influence on their perceptions and beliefs. A second mentoring principle cultivated from my interactions with Dr. Zimmerman is that *the approach or way in which mentors engage in the mentoring process and/or conduct themselves more broadly will often become the standards against which mentees later judge themselves as professionals*. Dr. Zimmerman's exemplary level of professional integrity, grace, and compassion have become the gold standard against which I now judge myself during interactions with my students.

SSRL SIG Mentoring Program

In recent years, some people have asked why I became interested in chairing and leading the SSRL SIG mentoring program. There are myriad reasons for my interest, but the most compelling is my desire to pay it forward and to emulate the style of mentoring that was of such benefit to me. In recognition that mentoring involves a special relationship that can forever change a life, the SSRL SIG mentoring program was envisioned to be an intimate, personally meaningful experience that enabled graduate students to learn about SRL research and to observe highly effective and exemplary models in formal and informal or social contexts. In reflecting on the SIG mentoring program, One of the most satisfying thigs about the mentoring programs has been the genuine level of interest and engagement exhibited by the SRL mentors. Virtually all SRL scholars who have been asked to participate in the mentoring program have done so with great enthusiasm and passion; they represent the change agents fully responsible for the emergence of this mentoring program as a desired and sought-after event by doctoral students.

Recommendations to Doctoral Students

At the 2019 AERA convention in Toronto, I had the great pleasure of mentoring Melissa Quackenbush as part of the SSRL SIG mentoring program. Ms. Quackenbush is a bright, intellectually curious doctoral student from Old Dominion University who is conducting her dissertation under the supervision of Dr. Linda Bol. Through our interactions, I learned about her keen interest in examining teacher self-efficacy for implementing SRL principles in the classroom and identifying potential differences among teachers across SRL implementation skills. I believe her focus on the direct application of SRL principles to classrooms is a vital and fruitful line of research.

As Ms. Quackenbush and other doctoral students begin or continue to work on their dissertations, I have a couple of closing thoughts and recommendations. First, try to think about the dissertation process as an *opportunity* rather than simply a capstone requirement for your degree. In completing a dissertation, doctoral students have the chance to put their initial stake in the ground regarding their area of expertise and to illustrate their potential as a budding scholar. Also, I believe it is vital for students to seek out the necessary mentoring supports and guidance from their dissertations chairs and other relevant scholars at their host institutions or beyond. From my experience, SRL scholars who belong to the SSRL SIG are some of the most generous and gracious individuals in terms of their efforts and time devoted to supporting doctoral students. So seek us out when needed!

Reference

DiBenedetto, M. K., & White, M. C. (2013). Applying the model of development of self-regulatory competence to mentoring. In H. Bembenutty, T. J. Cleary, & A. Kitsantas (Eds.), *Applications of self-regulated learning across diverse disciplines: A tribute to Barry Zimmerman* (pp. 445-472). Charlotte, NC: Information Age Publishing.

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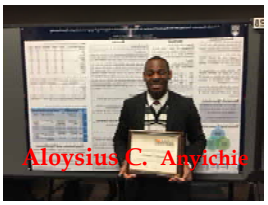
Graduate Students' Testimonials about the Effectiveness of the Mentoring Program


Aloysius C. Anyichie

During the mentors/mentees group breakfast, I was able to network with other mentees and mentors and enriched myself through the discussion concerning ideas about publishing (e.g., choice of journals based on targeted audience, quality versus quantity in publications). My experience was enriched by the one-on-one meeting with my mentor, Professor Julie Turner from the University of Notre Dame. In addition to a couple of online pre-conference interactions, and attending a session together, my lunch with Dr. Turner created a wonderful space for a deeper sharing of ideas about my research and future goals. Dr. Turner, provided expert feedback on my conference paper, and offered wonderful advice on publishing and how I might develop into an accomplished researcher. Our conversations added a new dimension to my emerging research agenda.


Charles Raffaele

Prior to the AERA Meeting this year, I had been interested in the intersection of technology and self-regulated learning (SRL) for some time and had engaged in research in that domain. However, I had never had a one-on-one interactive experience with a figure as prominent in that area as my mentor in the Graduate Student Mentoring Program (GSMP), Dr. Roger Azevedo. Dr. Azevedo has worked in the area of technological facilitation of learners' SRL for many years. A few of his major research areas have been the use of hypermedia (i.e., media that can be accessed non-linearly via links, as in a typical website), intelligent tutoring systems (e.g., MetaTutor), and development of and studies utilizing the game-based learning environment Crystal Island.


Dalila Dragnic-Cindrić

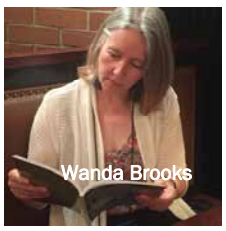
My mentor was Dr. John Nietfeld, a professor in the Teacher Education and Learning Sciences Department at North Carolina State University… Through our conversations, John has offered invaluable advice about advancing through the graduate school milestones, addressing the challenges and staying the course. At the AERA Annual Meeting, I was pleasantly surprised by the openness of the SSRL SIG community, its international character, as well as the acceptance, understanding, and support extended to the new scholars.


Deana Ford

I found the mentorship program to be highly beneficial in many ways. I had the honor to be mentored by Dr. Jeffrey Greene, an Associate Professor in the Learning Science and Psychological Studies Program at The University of North Carolina at Chapel Hill. Our interactions were invaluable from two aspects: as a student and as a future mentor. First, he emphasized the importance of scholarship and focused research. Second, his confidence, poise, and humor, gave me ideas on how I would present myself to future mentees.


Rebekah Freed & Dale H. Schunk

My advisor for the 2018 AERA conference was Dr. Dale Schunk of University of North Carolina, Greensboro. He is a professor in the School of Education in the Teacher Education and Higher Education Department. True to my social cognitive learning theory roots, I learn a great deal from people around me. When I applied for graduate school to get my long-awaited PhD, I did not know what to expect, and I did not know who to turn to for mentorship. When I was accepted to University of North Carolina to study self-regulated learning, I was eager to make connections with other graduate students in my program, to learn what I needed to know to help me succeed in my program.


Wanda Brooks

Dr. Stuart Karabenick was my mentor in the Studying and Self-Regulated Learning SIG's mentoring program at AERA. He is a research professor in the Combined Program in Education and Psychology at the University of Michigan in Ann Arbor, Michigan. I was very fortunate to be paired with Dr. Karabenick, as I have a high level of respect for his work. My research interests align with his work in self-regulated learning, motivation, and help-seeking behaviors. In particular, I explore how SRL strategies can benefit and motivate those who struggle asking for help.

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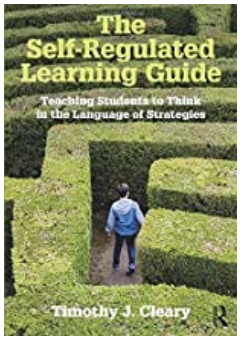
Self-Regulated Learning Guide: Insights, Strategies, and Applications Book Reviewed by Dr. Marie C. White, Nyack College

The Self-Regulated Learning Guide: Teaching Students to Think in the Language of Strategies **by Timothy J. Cleary.** Routledge, 2018, 168 pp. ISBN-13: 978-1138910553. $34.95.



Timothy J. Cleary's *The Self-Regulated Learning Guide: Teaching Students to Think in the Language of Strategies* makes a significant contribution to a growing need for practical applications with theoretical foundations in this area of research. The author shares the excitement that accompanies his self-regulated learning (SRL) research, which is readily conveyed through each chapter as he provides both expertise and application in a very personal way. Although Cleary states his intentional audience for the book to be teachers, there is much to be gained by anyone who is looking for ways to infuse research-based learning into daily learning experiences.

Cleary conveys his respect for the teaching profession and the knowledge he has gained from his interactions with those who are daily confronted with challenges from changing policies that often impede their desire to teach. In addressing the concern that this work is another "how to" book, the author separates SRL instruction from the fads and hot topics that teachers are often bombarded with and provides hands-on knowledge of a set of skills that collectively embody the term self-regulated learning. Through the book, he remains focused on his goals to "flesh out" the meaning of SRL and offers tips and recommendations that can actually be applied if one has the motivation to consistently and directly infuse SRL ideas and principles into classroom lessons and activities.

The book is divided into three sections representing the phases of SRL embedded in the conceptual foundation of Barry J. Zimmerman's 2000 version of the cyclical process of SRL with the critical component of the feedback loop. Consistent with White and DiBenedetto's (2018) integrated model of self-regulated learning, the three sequential and related phases of the Zimmerman model, forethought, performance control, and self-reflection are unpacked in chapters 2-7 with an emphasis on how teachers can apply these SRL principles in the classroom. Each chapter follows the same formatting and invites the readers to be participants, not viewers. The snapshots and quotes provide the readers with a goal-directed overview of the chapters. Reader reflections and Reflect and Connect exercises prompt the readers to think about the information provided in the chapters and interact with the text. Tales of the students and tales of the teachers bring to the reader hypothetical cases that readily reflect the author's intent to personalize and describe the challenges facing all participants as they begin the SRL journey. In addition, *Conversations between Teachers* and those who might share in the journey give the reader multiple perspectives of the thought processes that accompany attempts to infuse SRL ideas into the classroom. Featured figures and tables add visual to the well-thought out descriptions of SRL principles, processes, and characteristics that clarify and summarize what is presented in the text.


Timothy J. Cleary signing copies of one of his books for teachers

Section I, *Preparing for Your SRL Journey* emphasizes the first phase of SRL and provides the readers with the conceptual foundation of SRL. Within the chapter, the reader will find an emphasis placed on the concept of the cyclical feedback loop, a critical component of SRL often missed by those who support SRL in the classroom context. Cleary is mindful regarding the time constraints that make it challenging or teachers to provide feedback that is utilized by students and leads to successful learning outcomes. Still, later on in the book, he provides the teacher with vignettes that describe positive and negative feedback and how to best construct the type of feedback that students can apply to improve learning and performance.

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Tim with Dr. Barry J. Zimmerman

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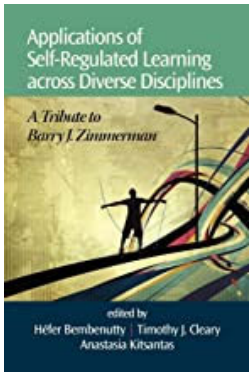
Section II, *Digging a Little Bit Deeper* focuses on the second phase of SRL and addresses how specific skills can be taught such as goal setting and task analysis. Here, the author clearly describes the content of feedback that encourages students to respond to changes in the way they approach a specific task they might have completed successfully. Teachers can either facilitate or undermine student motivation to self-regulate depending on the language used to provide feedback.

Section III, *Bringing It All Together* moves the reader beyond the strong introduction to SRL principles and methods to infuse these techniques of the first two sections and provides actual real-time setting applications of the process. The integrative SRL approach is applied to test preparation and test review activities, classroom-based assignments, projects, and daily classroom learning experiences. Cleary creatively describes the experiences of a 9th-grade teacher by providing the readers with a dialogue between the teacher and a student teacher. The conversations are rich with dialogue describing the SRL process as applied in real-time settings, and model how to work with those who might not have a strong grasp of integrating SRL techniques into lesson planning.

What makes the book user-friendly is the conversational tone of the author. Cleary personalizes his approach to sharing his excitement about SRL and strategically aligns personal experiences, experiences with teachers, and well-constructed vignettes in each chapter to support the SRL strategy being described. He describes the process of developing a solid understanding of SRL principles and the various methods for applying and extending these principles into classroom contexts as a journey. Long-term practice and refinement of the skills described in the book are required in order for teachers to become SRL experts. The author provides encouraging words for remaining in the process, re-reading and asking others for help if needed, and taking the time to become proficient SRL educators.

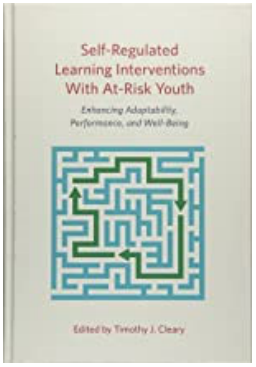
Through self-regulated learning processes, Cleary teaches students to think in the language of strategies is achieved. As a teacher, educator and fellow researcher, I am encouraged by the new wave of publishing that takes scholarly research and translates it into user-friendly language. The author's commitment to engage the readers as full participants in the SRL journey is evident in the multiple markers posted throughout each chapter to communicate with the educators the core principles of SRL. In addition, the conversational tone does not diminish the impression that one is becoming well versed in the theory of SRL with professional applications and classroom practices.

Without question, I would recommend this book to the intentional audience and beyond. For those of us who are challenged to find books that are both affordable and well integrated with theory, research, and applications, Cleary has provided us with a masterpiece. The considerable attention given to providing the reader with direct insights and strategies can be applied to helping students of all ages to succeed. Drawing from his experiences as a researcher and educator only adds to the authenticity and value of this excellent addition to SRL literature.



Applications of Self-Regulated Learning across Diverse Disciplines: A Tribute to Barry J. Zimmerman **by Héfer Bembenutty, Timothy J. Cleary, & Anastasia Kitsantas (2013)**

Self-Regulated Learning Interventions With At-Risk Youth: Enhancing Adaptability, Performance, and Well-Being by Timothy J. Cleary (2015)



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Self-Regulation and Innovations Lab (SAIL) at Rutgers University Directed by Dr. Timothy J. Cleary (https://srl.daacs.net/)

At Rutgers University, I lead a vibrant group of Psy.D. students in a variety of applied research studies and grant projects targeting self-regulated learning (SRL) assessment and intervention activities in K-12, college, and medical education contexts. Across these initiatives, my Self-Regulation and Innovations Lab (SAIL) seeks to address three broad research questions:

- In what ways can SRL assessment tools (with a particular emphasis on SRL microanalytic protocols) be applied to diverse tasks and contexts to reliably gather information about an individual's regulatory skills and processes?
- In what ways can researchers enhance the implementation process of SRL interventions, specifically examining effectiveness, feasibility, usability, and importance?
- In what ways can technological innovations serve as a mechanism through which feedback, SRL processes, and performance are maximized?

My Lab is devoted to three major grant projects.

1. **The grant, *Diagnostic Assessment and Achievement of College Skills (DAACS): Personalized Feedback and Targeted Student Supports* (PI: Jason Bryer; coPI's: Timothy Cleary and Heidi Andrade; Fund for the Improvement of Postsecondary Education [FIPSE], Department of Education)**

DAACS is designed to investigate the efficacy, utility, and feasibility of DAACS in an online college environment with non-traditional students. DAACS involves a suite of assessment tools and technological and social supports that provide personalized feedback to students about strengths and weaknesses across academic (reading, mathematics, writing) and SRL skills. My research team has been involved in all aspects of the project but have recently devoted primary attention to developing an SRL Lab resource to support DAACS, examining the feasibility, usability, and importance of DAACS, and using clustering techniques to identify SRL profiles.

2. **The Medical Simulation and Information Sciences Research Program: Congressionally Directed Medical Research Programs (PI: Steve Durning, Anthony Artino).**

This grant project, *Developing assessment tools to better understand the mechanisms of clinical reasoning in military medical simulation*, is designed to examine how myriad factors (e.g., contextual factors, self-regulatory processes, cognitive load) influence clinical reasoning performance across live and video patient encounters.

My research team has been primarily focused on the development and analysis of SRL microanalytic and think-aloud data, as well as the design and analysis of an SRL-based intervention program to optimize clinical reasoning skills.


Students of Dr. Timothy J. Cleary

3. **A five-year NSF grant award titled *Fostering Computational Thinking with Self-Regulated Learning* (Erin Peters-Burton (PI), Anastasia Kitsantas (co-PI), and Peter Rich (co-PI), and I (co-PI).** We are working collaboratively with high school teachers to incorporate SRL and computational thinking (CT) processes into existing science curriculum, with a specific focus on data analysis in science investigations.

A key initiative is to develop and refine a technology-based, integrative learning platform called *Science Practices Innovation Notebook (SPIN).* SPIN will be designed to promote CT through SRL skill development during data analysis activities and to create and cultivate adaptive feedback cycles between teachers and peers.

Given that nStudy software is an integral aspect of SPIN, we are thrilled to have Phil Winne serve as a major contributor to this grant project.

TIMOTHY J. CLEARY: SELECTED PUBLICATIONS

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