American Educational Research Association

SSRL SIG Fall 2013 Newsletter

Studying and Self-Regulated Learning in the Context of Homework

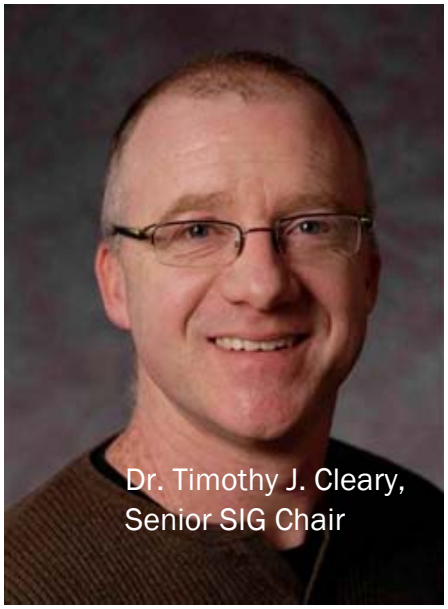
Dr. Erika A. Patall and Dr. Taylor W. Acee, Editors

Scott S. Trimble, Copy Editor

Table of Contents

Letter from the Chairs

Greetings! The Fall SSRL SIG Newsletter is a particularly important publication of our SIG because it serves as the platform for updating our colleagues and friends about recent developments and initiatives spearheaded by the SSRL SIG executive board and important information about the 2014 American Educational Research Association (AERA) annual meeting. Maria DiBenedetto and Marie White have done a superb job as our Program Chairs and are currently organizing and conceptualizing the SSRL SIG sponsored program, which will feature an array of impressive research papers. We also want to thank Erika Patall and Taylor Acee for their extensive work on the summer and fall newsletters and Adam Moylan and Linda Sturges for their continued efforts to recruit new members to our SIG. Finally, we are very appreciative of Hefer Bembenutty, Chair of the Graduate Student Award Committee, and Matt Bernacki, Chair of the Poster Award Committee, for their leadership and recent work in creating outstanding review panels of scholars to



Dr. Timothy J. Cleary, Senior SIG Chair

Dr. Daniel C. Moos, Junior SIG Chair

Letter from the Chairs (continued)

assist with these two very important AERA-sanctioned awards.

There are also several updates that we would like to share. Currently, our petition to create an outstanding scholarly contribution award, which was submitted in May of 2013, is still under review. AERA officials expect to provide feedback about this petition sometime in October. Although we had hoped to provide everyone with details about the title, nature, and procedures governing this award in the current version of the newsletter, Dan and I will be sure to send you an update via the email mailing list after approval has been granted. We have also made significant progress regarding the Graduate Student Mentoring Program that will kick-off at the 2014 AERA meeting. Over the summer, Teya Rutherford, who serves as the Student Chair of the Graduate Student Committee (GSC) conducted a brief survey with our graduate student members to inquire about the types of mentoring activities that are of interest to them. The information that we collected was quite valuable and will be used, in part, by the recently created Graduate Student Mentoring Program committee to guide the development of the program. We are thrilled that Dr. Rayne Sperling, who has extensive experience and expertise in mentoring activities, has agreed to chair this important committee. We look forward to sharing more details about this program in the coming months.

As you all know, we will also be holding elections to fill four open SIG Junior officer positions: Chair, Program Chair, Treasurer, and Secretary. The Junior officers who are elected will begin a two-year term beginning on the day following the 2014 AERA annual meeting. They will work with four current members of the SIG Executive Committee: Dan Moos (SIG Chair), Marie White (Program Chair), Taylor Acee (Secretary/Newsletter), and Linda Sturges (Treasurer). In our experience, each office involves a manageable amount of work while at the same time providing enriching professional experiences including networking with colleagues in our field. The SIG executive board is an exciting group with whom to work, in part because of their professionalism, sense of responsibility, and passion for self-regulation research. We have received an extensive number of nominations over the past month from individuals who are interested in joining our SIG Board. Thank you to all who have expressed a willingness to support our group!

We look forward to a fantastic year and wish all of you a very healthy, happy, and productive fall semester. **Just remember to please *invite at least one person to become a member of our SIG*.** Dan and I can be reached any time by email (Timothy Cleary at timothy.cleary@rutgers.edu or Daniel Moos at dmoos@gustavus.edu).

Letter from the Editors

Welcome to the fall 2013 edition of the Studying and Self-Regulated Learning (SSRL) Special Interest Group (SIG) newsletter. The purpose of the newsletter is to provide our members with updated SIG information, research, and perspectives from both students and experts. We also hope that this publication serves as a catalyst for future research in the area of studying, self-regulation, and learning.

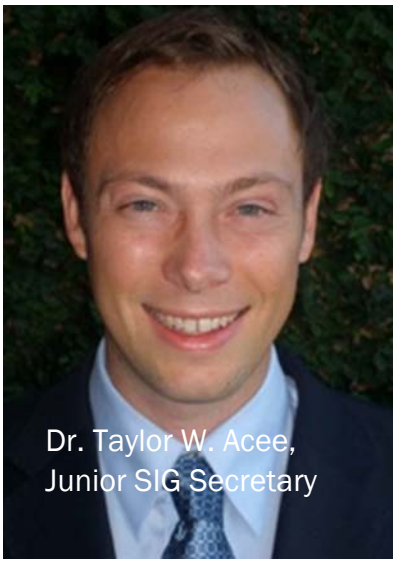
In this edition of the newsletter, we are exploring the theme of homework as a context for studying and self-regulated learning. In line with that theme, we have included interviews with three prominent homework researchers, Harris Cooper, Janine Bempechat, and Ulrich Trautwein. Each of these prominent scholars discusses their perspectives on homework, the role of self-regulation in homework, and how they think homework research is progressing, among other topics. SIG member and homework researcher, Hefer Bembenutty, has also contributed an excellent piece about the link between homework and self-regulation which we encourage you to read. Also, check out the piece by Heidi Andrade and Hirah Mir discussing classroom assessment and SRL and the piece on measurement matters by graduate student, Gregory Callan. Both are interesting and informative contributions to this newsletter. Finally, the AERA conference for 2014 is just around the corner. Maria DiBenedetto and Marie White have included a message to let you know what is ahead.


Dr. Erika A. Patall, Senior SIG Secretary

We invite you to send us ideas for themes you believe would be exciting for future newsletters. We are always thrilled to publish contributions from members, whether it is an update on your research endeavors, article on graduate student experiences, interview, or perspective piece. Please consider contributing your work to the newsletter. Likewise, let us know about your recent accomplishments, publications, or other news announcement that you would like to share with our SIG. We feel that it is important to recognize and acknowledge all of the great contributions and innovations that are made by our SSRL SIG members.

Finally, we (Erika and Taylor) have enjoyed editing this newsletter and serving as SIG secretaries. It has provided us with an amazing opportunity to work with great people and stay intimately connected with the field. We wish you the best for a wonderful 2013-2014 and a fabulous AERA 2014. Remember to renew your SSRL SIG membership!

Erika Patall (patall@austin.utexas.edu) and Taylor Acee (ta19@txstate.edu)


Dr. Taylor W. Acee, Junior SIG Secretary

Harris Cooper on Homework

Interview by Taylor W. Acee, Texas State University

Dr. Harris Cooper is a professor and chair of the department of Psychology & Neuroscience and a professor of education at Duke University. His research interests are focused on the application of social and developmental psychology to educational policy issues, including homework and school calendar issues. He is also a leader in research synthesis methods and studies how research syntheses can best be carried out and how their results can be communicated to general audiences as well as scholars. He has published nine books and well over 100 articles. After serving as editor of the Psychological Bulletin from 2003 through mid-2009, he now serves as the co-editor of Archives of Scientific Psychology, APA's first open access and collaborative data sharing journal, and the Chief Editorial Advisor for the APA journals program.

Acee: *Dr. Cooper, one area of your program of research is focused on homework and you have published extensively on this topic and received numerous recognitions for your work in this area. How did you originally become interested in conducting research on homework?*

Cooper: I have never been able to remember when an idea first struck me. I do remember that when I started looking into homework I was very excited to show the value of doing meta-analysis and I had heard several times that the homework literature was a mess, that no one could make sense of it. That may have provided the motivation to show what meta-analysis could do. And, my first child was two years old. Homework would be an issue in my house in the not too distant future!

Acee: *What is homework?*

Cooper: In 1989, I defined homework as "tasks assigned to students by school teachers that are meant to be carried out during nonschool hours". I'm now unhappy with the qualifier "during non-school hours" because secondary school students often work on homework assignments during the school day -- in study hall, for example. So, more recently I have substituted the qualifier "during non-instructional time" for "non-school hours."
This definition explicitly excludes (a) in-school or out-of-school guided study (e.g., test preparation classes) or tutoring; (b) home study courses delivered through the mail, television, audio or video disc, or over the Internet; and (c) extracurricular activities such as sports teams and clubs.

Acee: *Why do educators assign homework to their students?*

Cooper: Beyond its immediate effects on achievement, proponents of homework argue that it can have many other beneficial effects. They claim it can help students develop good study habits so they are ready to grow as their cognitive capacities mature. It can help students recognize that learning can occur at home as well as at school. Homework can foster independent learning and responsible character traits. And it can give parents an opportunity to see what's going on at school and let them express positive attitudes toward achievement.

Acee: *Counterarguments?*

Cooper: Opponents of homework counter that it can also have negative effects. They argue it can lead to boredom with schoolwork, since all activities remain interesting only for so long. Homework can deny students access to leisure activities that also teach important life skills. Parents can get too involved in homework -- pressuring their children and confusing them by using different instructional techniques than the teacher.


Dr. Harris Cooper, Duke University

Also, some opponents of homework have argued that home study can increase differences between high- and low-achieving students, especially when the achievement difference is associated with economic differences. They suggest that high achievers from well-to-do homes will have greater parental support for home study, including more appropriate parental assistance. Also, high-achieving and well-to-do students more likely will have quiet, well-lit places in which to do assignments and better resources to help complete assignments successfully. Proponents of homework counter-argue that homework provides the resources and incentives that struggling and/or poor students need to do academic work outside school. Without it, the achievement gap would be even larger.

Acee: *Who's right?*

Cooper: The question for educators and parents is not which list of effects -- the positive or negative -- is correct. Of course, any of these effects can happen. To avoid the negative effects and maximize the chance of positive effects, homework should be well thought out, prescribed in amounts that are consistent with what the empirical evidence suggest kids at different development

Harris Cooper on Homework (continued)

stages are capable of benefiting from and take into account the unique needs and circumstances of their students. Teachers need to employ assignments that are meaningful and avoid draining children of their motivation.

Acee: *How have your views on homework changed over the years?*

Cooper: When I began researching homework, I was truly agnostic about its benefits and drawbacks. My initial reading of the literature convinced me that homework could have either positive or negative effects depending on its quality and amount. That hasn't changed much. If anything, the research that has emerged in the last 30 years has reinforced my initial reading of the literature.

Acee: *Does homework really improve achievement?*

Cooper: Yes, I think it does, generally speaking. This question is best answered by comparing students who are assigned homework with students assigned no homework but who are similar in other ways. The results of such studies suggest that homework can improve students' scores on the class tests that come at the end of a topic. Studies show that students assigned homework in 2nd grade did better on math, 3rd and 4th graders did better on English skills and vocabulary, 5th graders on social studies, 9th through 12th graders on American history, and 12th graders on Shakespeare.

Less authoritative are studies that link the amount of homework students report doing to achievement, but control for lots of other factors that might influence this connection, structural equation models and regressions. These types of studies, often based on national samples of students, also find a positive link between time on homework and achievement.

Yet other studies simply correlate homework and achievement but make no attempt to control for student differences. About three-quarters of these studies find the link between homework and achievement is positive. Most interesting, though, is these results suggest little or no relationship between homework and achievement for elementary school students.

Acee: *Why might that be?*

Cooper: Younger children have less developed study habits and are less able to tune out distractions at home. Studies also suggest that young students who are struggling in school take more time to complete homework assignments simply because these assignments are more difficult for them. The causal direction is reversed.

Acee: *Should the role of homework in education change as students' progress from pre-kindergarten through high school and into college? If so, how should it change and why?*

Young children should do short, simple homework that leads to success, and homework that shows them the things they are doing in school have application to things they enjoy doing at home (e.g., calculating batting averages, high-interest reading). Adolescents can be challenged more. They can benefit from long-term assignments that require them to integrate skills and use resources outside of school. Of course, homework is a good venue for learning skills acquired through practice.

Acee: *How could teachers enhance their students' motivation to do homework outside of the classroom?*

Cooper: Let me give you one example. My former student, Erika Patall (I think you know her), has studied the effects of choice on motivation. She conducted some research in high school classes. Students were randomly assigned within classrooms to either receive a choice of homework options or be assigned one type of homework for all assignments in an instructional unit. Her results revealed that when students received a choice of homework assignments they reported higher intrinsic motivation to do homework, felt more competent regarding the homework, completed more homework, had higher homework grade averages, and performed better on the unit test. Giving students choices appears to be one way to improve intrinsic motivation, which in turn leads to better homework performance and higher completion rates. This is a great example of translating basic research findings into consequential changes in practice.

Acee: *Given the name of our SIG, I must ask: how is homework related to studying and self-regulated learning?*

Cooper: Here is a topic for numerous Master's theses and doctoral dissertations. It would seem that homework is an ideal setting to study self-regulation (because it should pick up large variations in SR) and to demonstrate its relationship to achievement. It is also a great venue to develop interventions to improve achievement through improved self-regulation and study skills. I think this area is wide open. Get your grad students on it!

Acee: *What are some of the more effective practices educators use when assigning homework to their students? Which practices have been found to be ineffective, or even harmful?*

Cooper: When I meet with teachers, I offer them the following suggestions. Remember please, that these are based not just on research (though I think nothing is in conflict with what research says is good practice) but also on the lessons I've learned from my hundreds of interactions with teachers over best practices in homework and my two terms as a school board member.

Harris Cooper on Homework (continued)

Give the right amount of homework. Research suggests students should get about 10 minutes of homework each night for each grade (10 minutes for 1st grade, 20 for 2nd, and so on). Adjust upward a bit if assignments are mostly reading or your students come from families with strong educational orientations. Don't overload kids with homework. It can ruin motivation.

Keep parents informed. Let parents know the purpose of homework and what your class rules are. If communication is clear, homework is an important bridge between schools and families. If communication is lacking, homework creates tensions that are hard to resolve.

Vary the kinds of homework. Homework is a great way for kids to practice things that are learned by rote (spelling, math facts, foreign language). It is also a great way to show kids the things they learn in school apply to things they enjoy at home (calculating batting averages, reading the back of a cereal box). Mix it up.

Be careful about parent involvement. Consider the time and skill resources of parents when requiring their involvement. Working parents may have little time for a direct homework role. Poorly-educated parents may have trouble being good mentors. Students who are doing well in school may benefit most from homework they do all by themselves.

Never give homework as punishment. It implies you think schoolwork is aversive. Kids will pick this up.

Acee: *What strategies might you recommend to people who help students with their homework (e.g., tutors, parents, and academic coaches)?*

Cooper: The National PTA, NEA and Department of Education websites can be searched for good advice on how to help students with their homework. When I speak with parents, again based on the research as well as the many conversations I've had with parents over the years, I suggest the following five strategies for parents and tutors to use.

Be a stage manager. Make sure your child has a quiet, well-lit place to do homework. Make sure the needed materials (paper, pencils, dictionary) are available.

Be a motivator. Homework provides a great opportunity for you to tell your child how important school is. Be positive about homework. The attitude you express about homework will be the attitude your child acquires.

Be a role model. When your child does homework, don't sit and watch TV. If your child is reading, you read too. If your child is doing math, balance your checkbook. Help your child see that the skills they are practicing are related to things you do as an adult.

Be a monitor. Watch your child for signs of failure and frustration. If your child asks for help, provide guidance, not answers. If frustration sets in, suggest a short break.

Be a mentor. When the teacher asks that you play a role in homework, do it. If homework is meant to be done alone, stay away. Homework is a great way for kids to develop independent, life-long learning skills. Over-involvement can be a bad thing.

Erika Patall (again) conducted a synthesis of research on parent involvement in homework. She found 14 studies that manipulated parent training for homework involvement. These studies revealed that training parents resulted in (a) higher rates of homework completion, (b) fewer homework problems, and (c) possibly, improved academic performance among elementary school children. Her meta-analysis of studies that simply correlated parent involvement and achievement-related outcomes suggested that the relationship of parent involvement to the effectiveness of homework is very complex; different types of parent involvement in homework have different relationships to achievement and the type of parent involvement changed as children move through the school grades.

Acee: *In general, what strategies can students use to be more effective and efficient at successfully completing their homework?*

Cooper: For kids, I tell them (and their parents):

Pick a good time to do homework. Try to do your homework at the same time everyday – right after school, just before dinner, or right after dinner. Try not to leave homework until just before you go to bed.

Remember to make time for long-term projects. Think about using a weekend morning or afternoon for working on big projects, especially if the project involves getting together with classmates. If you need special stuff for a project, make sure to tell your parents to get it for you well in advance.

Spend more time on hard homework than easy homework. If you know what's easy and hard, do the hard work first. Take a short break if you are having trouble keeping your mind on an assignment.

Harris Cooper on Homework (continued)

If homework gets too hard, ask for help. If your parents are busy and you have an older brother or sister, ask them for help, or get your parents to ask them. Only ask for help if you really need it.

Find a place that makes studying easy. Collect up all the books and supplies you'll need (and your snack) before you begin to work. Do your homework in the same place every day.

Acee: *Thinking back to your own personal experiences with homework, what did you like or dislike about homework when you were a student?*

Cooper: As a child, I remember being indifferent toward homework. I remember using my apartment windowsill as a desk and doing homework in a Composition notebook. As an adolescent I remember doing as much of my homework as possible at school so I could go out after school and play punchball. I recommend neither of these activities. (I was not a great student, at least not by Bronx High School of Science standards.)

For more information see:

Cooper, H. (2007). *The battle over homework: Common ground for administrators, teachers, and parents (3rd Ed.).* Thousand Oaks, CA: Corwin Press.

Cooper, H., Robinson, J.C. & Patall, E.A. (2006). Does homework improve academic achievement?: A synthesis of research, 1987-2003. *Review of Educational Research, 76* 1-62.

Patall, E.A., Cooper, H. & Robinson, J.C. (2008). Parent involvement in homework: A research synthesis. *Review of Educational Research, 78,* 1039-1101.

Message from the Program Chairs

By Maria DiBenedetto and Marie White

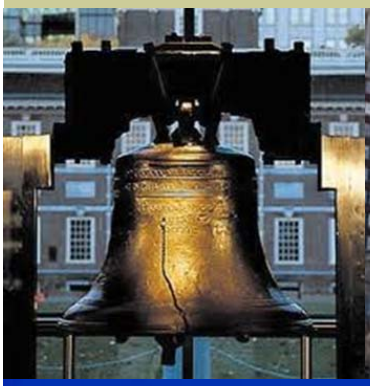
We are pleased to report that our SIG received 25 proposals for the 2014 Annual Meeting in Philadelphia. We were able to accept 17 of them and have an excellent program lined up! Our SIG Business Meeting will feature a keynote address by Dr. Stuart Karabenick and our sessions will consist of one symposium: Research Evidence on the Dynamic and Cyclical Nature of Self-Regulated Learning, two paper sessions: Self-Regulated Learning Assessment and Metacognition, and Self-Regulated Learning across Diverse Contexts and Populations, one round table: Self-Regulated Learning among Adult Learners, and a poster session.

We would like to extend a large thank-you to all of our reviewers this year! If it were not for you: Taylor Acee, Shalan Areepattamannil, Anthony Artino, Stacy DeZutter, Daniel Dinsmore, Jeffrey Greene, Richard Hamilton, Allen Harbaugh, Jun Li, Angela Lui, Kristina Mattis, Erika Patall, Erin Peters Burton, Teomara Rutherford, Dale Schunk, Rayne Sperling, Linda Sturges, Christopher Wolters, and Steven Richard Yussen - we would not have the quality of scholarship for which we are proud to present!

Lastly, please check the schedule for our reception/dinner following our SIG Business Meeting. This is always a great opportunity to unwind, make new friends, and get reacquainted with colleagues from around the world. We look forward to seeing you in Philly!

Looking Towards the AERA 2014 Annual Meeting

Location: Philadelphia, Pennsylvania
Dates: Thursday, April 3 - Monday, April 7, 2014
Theme: "The Power of Education Research for Innovation in Practice and Policy"



Janine Bempechat on Current Perspectives on Studying and Self-Regulation in Homework

Interview by Ariana Crowther, The University of Texas at Austin


Dr. Janine Bempechat, Wheelock College

Dr. Janine Bempechat is a Professor of Psychology and Human Development at Wheelock College. Dr. Bempechat broadly studies family, school, and cultural influences in the achievement motivation of low income children and youth. She has studied elementary and secondary school students in both public and Catholic schools. She has written numerous books and articles -- for example, Against the Odds: How At Risk Students Exceed Expectations (Jossey-Bass, 1998) and Getting our Kids Back on Track: Educating Children for the Future (Jossey-Bass, 2000). She is currently co-editing, with David J. Shernoff, the forthcoming NSSE Yearbook, Engaging Youth in Schools: Evidence -Based Models to Guide Future Innovations (2013, Teachers College Press).

Crowther: *Dr. Bempechat, you have focused on homework a good deal in your research. How did you originally become interested in conducting research on homework?*

Bempechat: My interest in the value of homework began with my early research on parental socialization of achievement, and peaked when my own children began elementary school. I was, quite frankly, astonished to learn that the school adhered to a homework policy that saw children receiving relatively little homework, even as they entered the later grades (4th and 5th). I was equally surprised to learn that there was a rather vocal group of parents who were vehemently opposed to homework and advocated for very little or no homework.

I was surprised for two reasons. The first has to do with my own upbringing. My immigrant parents placed a very high value on the importance and promise of a good education. As such, homework was part and parcel of our evening ritual. My parents paid little mind to complaints about homework and spoke of its relevance beyond the next day's learning. The educational messages I received, both implicit and explicit, were oriented around the need to complete homework for academic and moral reasons.

Second, I found it difficult to understand how the parents in our school community, many of whom had struggled and sacrificed along their journey to become professionals, as I and my husband had, would not want the same rigorous training for their own children. Ours is a relatively high achieving community; these parents surely held high expectations for their children's academic and life outcomes. I asked myself, how did these parents expect their children to attain the levels of achievement they anticipated of them without the careful training in habits of mind that homework provides?

Crowther: *What is your general view on the value of homework?*

Bempechat: I believe homework provides children with critical training in a variety of motivational skills that they will increasingly call upon as they get older. These include academic resilience, the ability to plan, to delay gratification, to regulate their behavior, and to endure boredom. These are complex skills that do not develop overnight nor in a vacuum. They develop over years of schooling, with the careful guidance and support of parents and teachers.

Crowther: *What are some of your major findings related to homework?*

Bempechat: I have studied low income students' perceptions of their educational experiences cross-ethnically. When we have examined how higher and lower achieving students speak about homework, we have found that higher achieving students do not fit the stereotype that many people hold of them. These students speak about struggling with homework, experiencing difficulty and great frustration, and express a preference for having less homework than they are assigned. What seems to differentiate these students from their lower achieving peers is that they express what we refer to as a "bite the bullet" approach to homework. They may not enjoy it, but they acknowledge that it must be done, and they find ways to complete even the most difficult and frustrating tasks.

Crowther: *Given the focus of our SIG, what is the role of self-regulation in homework? Are there benefits of homework for self-regulated learning?*

Bempechat: Homework provides unique opportunities for students to develop self-regulation skills, and from a young age. One of the controversies surrounding the effectiveness of homework is that it does not appear to enhance academic achievement in early elementary school. In the absence of an academic advantage, many anti-homework advocates have argued that the practice is of no value and should be eliminated altogether.

However, the issue is more nuanced. Much research has shown that in these early grades, teachers assign homework less to foster achievement gains and more precisely to foster the development of self-regulation skills, such as time management and study skills. When teachers consistently assign homework, they provide their students with opportunities to learn how to plan their time, organize their work space, minimize distractions, and seek help if they need it. Attempts to minimize or eliminate homework are ill-advised and do students a

Janine Bempechat on Current Perspectives on Studying and Self-Regulation in Homework (continued)

great disservice; we should not deprive students of any opportunities to develop motivational skills that they will need to rely on increasingly as they get older and learning becomes more complex.

Crowther: *What are some challenges associated with homework?*

Bempechat: A major challenge is that of the conflict that often arises between parents and children around the completion of homework. No parent enjoys conflict in the home, and when and how homework is completed can become, for many families, a nighttime struggle.

Stress around homework becomes exacerbated when children are over-scheduled. After a day at school (and a day at work, for most parents) and an afternoon and/or evening engaged in extra-curricular pursuits, both children and parents are tired. In addition, many parents may not feel comfortable helping their children. They clearly do not want to steer them in the wrong direction, and may be at a loss for how to proceed. Many parents also struggle with knowing when to step in to offer help and when to let go and allow children to struggle. Teachers can be of enormous help to parents by helping them navigate these challenges.

Crowther: *How can parental involvement influence homework habits?*

Bempechat: A great deal of research on homework has shown that parents can be very successful in modeling for their children how to manage their homework responsibilities. As Lyn Corno, Jianzhong Xu, and others have shown, parents play a critical role in helping their children learn how to plan their time, minimize distraction, and create a homework environment that works for them. Parents also have an essential role to play in modeling for their children how to cope with frustration and difficulty. As the work of Else-Quest suggests, parents' need to monitor and self-regulate their own emotional reactions while helping their children. When parents maintain positive affect, even in the face of frustration, children's performance improves. In contrast, tension has been shown to predict lower achievement.

Crowther: *What are some tips you can provide that may help students struggling with homework?*

Bempechat: It is so important for students to realize and accept that struggle is a natural part of the learning process. I think many students believe that "smart" students do not struggle to learn and that their own intense efforts serve as evidence that they are not smart enough, a condemnation of their abilities. One lesson we have learned from the higher achievers in our research is that it pays to orient yourself towards what is helpful and avoid what is unhelpful. It is of no use to bemoan the fact that there is homework to be done—it has to be done. Energies are much better spent identifying and seeking out those who can help, be they teachers, family members, or peers. Indeed, there is no shame in asking for help. I see maladaptive tendency in some of my own students every year—they risk doing poorly because they do not want to admit they need help, as if this were shameful. It is not shameful. On the contrary, it is one of the smartest things students can do for themselves—it is adaptive to seek help.

Crowther: *How is the homework experience perceived by students?*

Bempechat: Many students do not like homework, and wish they had less of it. They especially do not enjoy homework that is difficult for them. Homework is an obligation that may not always be welcomed, especially as students get older and take on greater responsibilities at home, with part-time work, and with extra-curricular activities. However, by the time they are in high school, students tend to recognize and acknowledge that homework enhances their learning.

Students report enjoying homework when it is interesting, relevant to their lives, and when they perceive that they are learning something new. At the same time, while they may not enjoy what they call "busy work," there is nonetheless value in worksheets and repetition, especially in some subjects. In mathematics, for example, worksheets are an essential aspect of learning, for laying down the foundation for further learning and understanding.

Crowther: *How do students' learning beliefs impact their interactions with homework?*

Bempechat: Teachers generally give their students an idea of how long homework assignments should take, and some teachers provide an upper time limit beyond which they suggest that students stop working on the assignment in question and seek help the following day in class. Some students are able to complete these assignments well within teachers' suggested limits and others are not. Given the saliency of social comparison, these latter students may be led, quite understandably, to question their ability to master the material. Teachers can manage these situations well by normalizing struggle and providing supports (teacher-student or peer-peer) to help students attain mastery. It is critical for all students to understand that the process of learning naturally involves confusion and discouragement, and these experiences do not imply lack of ability, but rather the continued need to stay focused and trust in the value of effort. Indeed, many teachers are able to orient their students' thinking in this adaptive way by creating classroom environments that focus on the process, rather than the product of learning.

Crowther: *Some parents and teachers feel homework is unnecessary and think that all work should be done during class time. What is your response to that perspective?*

Bempechat: This perspective is short-sighted. Homework is not only a vehicle through which teachers and parents can foster adaptive

Janine Bempechat on Current Perspectives on Studying and Self-Regulation in Homework (continued)

achievement beliefs and behaviors, such as self-regulation. It is also a powerful tool to nurture children's understanding that everything is not about them. They are certainly free to dislike homework, complain about it, and argue that they would prefer to do other things. However, by assigning homework, we adults communicate that inasmuch as teachers have an obligation to arrive at school each day prepared to share knowledge and foster learning, children have an obligation to their teachers, their peers, and themselves to come to school ready to learn.

They have an equally important obligation to their parents and family members to take the work of learning seriously and to look beyond the here and now to how their commitment to learning will have an impact on their future life opportunities. Some critics of homework argue that there are other ways to impart these important lessons. While this is indeed true, it does not invalidate homework as a critical tool in the socialization of children for learning and for life.

Crowther: *Have your views on homework changed over your career?*

Bempechat: If anything, I have a greater appreciation for the role that homework plays in preparing children for the challenges that await them along their educational trajectories. At the same time, I have increasingly come to see the homework debate as a class issue. Dramatic media reports of overwhelmed students and alarmed parents have fueled an anti-homework movement. Yet on average, American students—even at the senior high school level—do very little homework, as little as less than one hour per night during a typical school week, according to recent NAEP reports.

I do not doubt that some students experience undue stress related to homework. I do believe, however, that such experiences may be limited to communities where, in well-meaning attempts to prepare children for the hyper-competitive global economy, there is great pressure to achieve at the highest levels. This experience does not speak to the vast majority of American families, and in this sense, the push to minimize or eliminate homework is misguided, especially in light of its demonstrated academic and motivational benefits.

I have found it especially staggering to hear some argue that homework "punishes the poor." Many parents do indeed find it challenging, for a variety of reasons, to help their children with school work. In the context of increasing income inequality, the discourse against the value of homework does all children a disservice, especially lower income children. Instead, as many schools are now demonstrating, it is our collective obligation—schools and communities—to step in and provide all students with the support they need to succeed.

Research, Assessment, Measurement, and Self-regulation of Homework: An Interview with Dr. Ulrich Trautwein

Interview by Héfer Bembenutty, Queens College of The City University of New York

Dr. Ulrich Trautwein is a Professor for Educational Science at the University of Tübingen, Germany. His main research interests include the role of self-related cognitions in students' homework behavior, educational transitions, and the effects of different learning environments on self-concept, interest, and personality development. He has published more than 100 scholarly articles in peer-reviewed journals. Trautwein directs two longitudinal large-scale school achievement studies and several large-scale intervention projects. He is also the director of the Graduate School on Learning, Educational Achievement, and Life Course Development (LEAD), which is funded by the prestigious excellence initiative of the German Federal and State Governments.

Initial Interest in Homework

Bembenutty: *What attracted you to research on homework? What professional experiences influenced your interest in homework?*


Dr. Ulrich Trautwein

Trautwein: As a young doctoral student, I was asked by my supervisors to write a "short report of the facts in homework research" as part of a report for a school. Given the important role that homework plays in many school systems, we had expected that there was ample research out there showing its positive effect and that finishing the short report would take me no more than a couple of days. I did indeed finish the short report on time, but it was less a summary of the existing literature than a quest for additional research on homework. In a certain way, I am still working on a better empirical basis for this short report.

Conceptualization of Homework

Bembenutty: *How do you conceptualize homework?*

Trautwein: I agree with Harris Cooper's (1989, p. 7) classical definition of homework as "tasks assigned to students by school teachers that are meant to be carried out during non-school hours." More

Research, Assessment, Measurement, and Self-regulation of Homework: An Interview with Dr. Ulrich Trautwein (continued)

recently, Cooper has extended his definition by indicating that homework are tasks assigned to students by school teachers that are meant to be carried out during non-instructional time (Bembenutty, 2011). There are other important forms of learning that take place outside regular school hours, including private lessons, supervised "homework" at school, and learning for exams. They share certain characteristics with homework, but they are not the same.

Bembenutty: *What is the role that homework plays in enhancing student achievement?*

Trautwein: There have been a number of articles that shed light on this issue, the most comprehensive and influential one being the Cooper, Robinson, and Patall (2006) review. Overall, according to this review, homework seems to contribute to achievement, although the effect sizes are rather small. Our own research indicates that there is a need for a closer look at various homework characteristics to get a better understanding of the pattern of results. For instance, homework seems to be more closely associated with achievement in some countries than in others (Dettmers et al., 2009), homework completion effects are often more pronounced than homework assignment effects (Trautwein, Schnyder, Niggli, Neumann, & Lüdtke, 2009), and homework quality plays an important role when determining the effectiveness of homework assignment effects (Trautwein, Schnyder, Niggli, & Lüdtke, 2009).

Bembenutty: *Some educators, parents, and students have been critical of some teachers' practice of assigning homework. From your perspective, what is the problem with homework? What are the positive and negative effects of homework?*

Trautwein: There are quite obvious limitations in typical homework practices in many classrooms in the U.S., in Germany, and around the world. The quality of the assignments is mixed, the pedagogical role is ill-defined, and homework is completed by some of the students. Moreover, homework issues often cause tensions in families. Hence, there is a clear need to think about the goals that are associated with assigning homework and how to achieve them, and these goals and procedures also have to be communicated with children and their families. One example: if a teacher assigns homework because dealing with homework is an opportunity to train self-regulation skills, then it is important to include the training of these skills in the classroom too. And, it's important to tell parents how their children can develop self-regulation skills. Importantly, one crucial element in training self-regulation skills is that parents do not interfere with their children's assignment (see Dumont, Trautwein, Nagengast, & Nagy, in press). Because such a professional, principled way of dealing with homework is lacking in many classrooms, homework effects are likely to be much smaller (and perhaps even negative) for many children.

Assessment and Measurement of Homework

Bembenutty: *What are some problems associated with homework assessment and measurement. What are some of your findings?*

Trautwein: As we described in a review article in more detail (Trautwein & Köller, 2003), there has been a surprising reliance on student reported "time on homework" as the central measure. As we wrote in this article: First, it may not be a "clean" measure of time spent on homework. If homework is not clearly defined in the questionnaire, respondents may include other school related learning activities in their self-reports. If the homework measure is contaminated by time spent on school-related activities other than homework, the effect of homework might appear to be more positive than is actually the case. Second, time spent on homework per week is itself an aggregated variable; it consists of homework frequency (i.e., frequency of homework assigned by the teacher, a class-level variable) and homework length (i.e., the time typically spent on homework per day, a typical student-level variable, which can nevertheless be aggregated at the class level). Third, even when disaggregated, time spent on homework as reported by an individual student might not provide the information that the researcher seeks. If a student needs more time to complete homework than do classmates, the reason may be a cognitive or motivational deficit. Finally, in addition to the theoretical weakness of the time-on homework variable, the degree of correspondence between students' reports of homework time and their actual study time has yet to be confirmed. One central reason for using the problematic time-on-homework variables is the reliance on available large-scale data sets—there is a lack of "real" homework studies with a broad set of homework instruments. In our own research, we had access to data sets that include both time on task and effort expenditure variables (e.g., Trautwein et al., 2006). Generally, the effort variables were the more interesting and powerful constructs.

Bembenutty: *You have used structural equation modeling and hierarchical linear modeling analyses to examine in what ways students' homework effort is influenced by expectancy and value beliefs, homework characteristics, parental homework behavior, and conscientiousness. What were some of your major findings?*

Trautwein: Based on Eccles' expectancy-value model (Eccles et al., 1983), we developed a psychological multi-level model of homework assignment and completion effects (Trautwein, Lüdtke, Schnyder, & Niggli, 2006). According to this model, homework behavior is predicted by expectancy and value beliefs. Homework characteristics, parental homework behavior and student personality (especially conscientiousness) predict homework behavior, and some of the effects of these variables are mediated by expectancy and value beliefs. In a variety of studies, we found empirical support for the main predictions of this model (e.g., Trautwein, Lüdtke, Kastens, & Köller, 2006; Trautwein & Lüdtke, 2007; Trautwein, Lüdtke, Roberts, Schnyder, & Niggli, 2009). For instance, expectancy and value beliefs are closely associated with effort spent on homework, whereas the association with time on homework is much weaker (e.g., Trautwein & Lüdtke, 2007, 2009. Furthermore, homework quality predicts homework motivation (expectancy and value beliefs) as well as students' effort on homework (Dettmers, Trautwein, Lüdtke, Kunter, & Baumert, 2010; Trautwein et al., 2009). Overall, motivation has a similar effect in the homework context as in a classroom context, but some qualifications apply, for instance with regard to the role of conscientiousness (Trautwein et al., 2006).

Research, Assessment, Measurement, and Self-regulation of Homework: An Interview with Dr. Ulrich Trautwein (continued)

Motivation, Emotion, and Self-regulation

Bembenutty: *How is homework linked with motivation, emotion, and self-regulated learning?*

Trautwein: There is ample evidence that homework motivation is of utmost importance when analyzing homework effects. Those students who report a higher motivation are more likely to do their homework. By the way, this finding is in conflict with one of the central arguments for homework according to which homework assignments help the low-achieving students to catch up. Homework emotions are closely associated with homework motivation (e.g., Dettmers et al., 2011; Goetz et al., 2012). In terms of self-regulated learning, the motivational constructs that we included in our research may be seen as motivational predictors of self-regulated homework completion activities. From my perspective, what is missing are (1) studies that examine self-regulation in the homework area with a clear process-oriented approach and (2) studies that examine if homework assignments and homework completion contribute to building up self-regulation skills over time.

Bembenutty: *How could teachers enhance their students' motivation, emotion, and self-regulation to do homework outside of the classroom?*

Trautwein: Of course, there is no "one fits all" solution, but it rather depends on the causes of low homework motivation and compliance. For instance, if homework assignment quality is low, it may be reasonable for students not to work on these tasks; in this case, the first step is to improve homework quality. If parents interfere a lot when students work on their tasks, their self-regulation skill may suffer; in this case, it is important to work on the role the parents play in homework completion. If a student is not interested in a specific subject, it may be important to help him or her to re-discover the value of doing well in the specific subject (see Hulleman, Godes, Hendricks, & Harackiewicz, 2010). To help teachers develop an effective, flexible handling of motivational problems, it's important to help them understand central motivational theories instead of providing them with something like a list of "the 10 most effective motivational tricks."

Future Research

Bembenutty: *What current research on homework are you currently conducting?*

Trautwein: In a certain way, we are still busy with testing central and not-so-central elements of the Trautwein, Lüdtke, Schnyder, and Niggli (2006) multilevel homework model. At the moment, we focus various value facets and continue to scrutinize effects of parental homework involvement. Furthermore, we recently started to examine intervention elements that may have an effect on homework motivation and completion.

Bembenutty: *What recommendations for research on self-regulation and homework can you give to researchers interested in this area of investigation?*

Trautwein: Homework is clearly an important and still under-developed research area. Systematically bringing it together with self-regulation research has a great potential for theory development and for educational practices. I see several promising avenues for research, including process-oriented analyses of homework completion and developmental studies on the association among homework assignments, homework completion, and self-regulation skills. In my view, the methodological quality of homework studies will be a key issue in overcoming limitations of prior research. Hence, I would urge researchers to put specific emphasis on study designs and instrumentation. At the same time, I should emphasize that progress in research is often made because people do NOT follow other researchers' recommendation.

Bembenutty: *Would you like to say something else?*

Trautwein: Always be careful if somebody asks you to write a "short report on the facts" in some well-known area!

References

Bembenutty, H. (2011). An interview with Harris Cooper: Research, policies, tips, and current perspectives on homework. *Journal of Advanced Academics 22*(2), 340-350.

Cooper, H. (1989). *Homework*. White Plains, NY: Longman.

Cooper, H., Robinson, J. C., & Patall, E. A. (2006). Does homework improve academic achievement? A synthesis of research, 1987–2003. *Review of Educational Research, 76*, 1-62.

Dettmers, S., Trautwein, U., & Lüdtke, O. (2009). The relationship between homework time and achievement is not universal: Evidence from multilevel analyses in 40 countries. *School Effectiveness and School Improvement, 20,* 375-405.

Dettmers, S., Trautwein, U., Lüdtke, O., Kunter, M., & Baumert, J. (2010). Homework works if homework quality is high: using multilevel modeling to predict the development of achievement in mathematics. *Journal of Educational Psychology, 102,* 467-482.

Dettmers, S., Trautwein, U., Lüdtke, O., Goetz, T., Frenzel, A. C., & Pekrun, R. (2011). Students' emotions during homework in mathematics: Testing a theoretical model of antecedents and achievement outcomes. *Contemporary Educational Psychology*, *36*, 25-35.

Research, Assessment, Measurement, and Self-regulation of Homework: An Interview with Dr. Ulrich Trautwein (continued)

Dumont, H., Trautwein, U., Nagy, G., & Nagengast, B. (in press). Quality of parental homework involvement: Predictors and reciprocal relations with academic functioning in the reading domain. *Journal of Educational Psychology*.

Eccles, J. S., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J. L., & Midgley, C. (1983). Expectancies, values and academic behaviors. In J. T. Spence (Ed.), *Achievement and achievement motives* (pp. 74-146). San Francisco, CA: W. H. Freeman.

Goetz, T., Nett. U. E., Martiny, S. E., Hall, N. C., Pekrun, R., Dettmers, S., & Trautwein, U. (2012). Students' emotions during homework: Structures, self-concept antecedents, and achievement outcomes. *Learning and Individual Differences, 22*, 225-234.

Hulleman, C. S., Godes, O., Hendricks, B., & Harackiewicz, J. M. (2010). Enhancing interest and performance with a utility value intervention. *Journal of Educational Psychology, 102*(4), 880-895.

Trautwein, U., Lüdtke, O., Schnyder, I., & Niggli, A. (2006). Predicting homework effort: Support for a domain-specific, multilevel homework model. *Journal of Educational Psychology, 98,* 438-456.

Trautwein, U., Lüdtke, O., Kastens, C., & Köller, O. (2006). Effort on homework in grades 5 through 9: Development, motivational antecedents, and the association with effort on classwork. *Child Development, 77,* 1094-1111.

Trautwein, U., & Lüdtke, O. (2007). Students' self-reported effort and time on homework in six school subjects: Between-student differences and within-student variation. *Journal of Educational Psychology, 99*, 432-444.

Trautwein, U., & Lüdtke, O. (2009). Predicting homework motivation and homework effort in six school subjects: The role of person and family characteristics, classroom factors, and school track. *Learning and Instruction, 19*, 243-258.

Trautwein, U., Lüdtke, O., Roberts, B. W., Schnyder, I., & Niggli, A. (2009). Different forces, same consequence: Conscientiousness and competence beliefs are independent predictors of academic effort and achievement. *Journal of Personality and Social Psychology, 97,* 1115-1128.

Trautwein, U., & Lüdtke, O. (2009). Predicting homework motivation and homework effort in six school subjects: The role of person and family characteristics, classroom factors, and school track. *Learning and Instruction, 19*, 243-258.

Trautwein, U., Niggli, A., Schnyder, I., & Lüdtke, O. (2009). Between-teacher differences in homework assignments and the development of students' homework effort, homework emotions, and achievement. *Journal of Educational Psychology, 101*, 176–189.

Trautwein, U., Schnyder, I., Niggli, A., Neumann, M., & Lüdtke, O. (2009). Chameleon effects in homework research: The homework-achievement association depends on the measures used and the level of analysis chosen. *Contemporary Educational Psychology, 34,* 77-88.

Measuring Self-Regulated Learning during Mathematical Problem Solving with SRL Microanalysis

Spotlight on SIG Student Member Gregory Callan, University of Wisconsin-Milwaukee

Gregory Callan, University of Wisconsin-Milwaukee

Researchers have used a variety of methods to measure self-regulated learning (SRL). Although self-report questionnaires have been relied on most frequently, the past decade has brought forth a plethora of new and innovative measurement tools called *event measures*. These event measures, which include behavior traces, SRL diaries, think-alouds, and SRL microanalysis, are designed to capture SRL as a contextualized process and thus yield real-time data about how individuals regulate during specific tasks (Winne & Perry, 2000; Zimmerman, 2008).

Although emerging data supports the use of event measures, there remains a need to adapt and apply these methodologies across new academic tasks and contexts. For example, SRL microanalysis, which entails the use of contextualized and task-specific interview questions, has been shown to be an effective tool for measuring SRL during motoric or athletic tasks. However, minimal attention has been devoted to applying SRL microanalysis to academic contexts, with no application to mathematics. This is unfortunate given that math researchers have expressed a need for measurement tools like microanalysis (Romberg, 1995).

In addition to extending SRL microanalysis to academics, research is also needed to compare context-specific measures, such as SRL microanalysis, to more global measures of SRL. For example, little is known about how microanalysis relates to SRL questionnaires or teacher rating scales and which of these tools best predict achievement. In my dissertation, I have developed a SRL microanalytic interview protocol that is designed to examine middle school students' regulatory processes as they practice solving math word problems.

Background on SRL Microanalysis

SRL microanalysis is a structured interview that elicits information about students' cognitive and metacognitive functioning during engagement with a specific task. SRL microanalysis is closely linked with the three-phase model of SRL (Zimmerman, 2000) in that the processes to be measured are selected directly from the three-phase model and the question phrasing is derived from the definitions found in the model. Microanalytic question administration is also temporally linked with the three-phase model. For example, items measuring *forethought* processes (goal-setting, planning) are administered before task engagement, when forethought processes are most salient. Linking phase

Measuring Self-Regulated Learning during Mathematical Problem Solving with SRL Microanalysis (continued)

processes and the temporal dimensions of the task are mirrored for *performance-control* (during) and *reflection* (after) processes as well. Given the contextualized nature of the assessment approach, each regulatory process is typically evaluated using a single question. Further, these microanalytic questions are open-ended, which is quite different from the typical retrospective, Likert scale format used in most rating scales.

Objectives of Current Research

The primary purpose of my dissertation has been to (a) create a SRL microanalytic protocol for measuring SRL during mathematical problem solving and (b) examine the convergence, divergence, and predictive validity of measures across three different types of achievement outcomes.

Methods and Measures

To address these research objectives, I enlisted a variety of SRL measures including six SRL microanalytic items, self-report questionnaires measuring SRL strategy use (Self-Regulated Strategy Inventory-Self-Report; α= .92; Cleary, 2006), a measure of a theoretically divergent construct (Self-Esteem Questionnaire), and a teacher rating scale (Self-Regulated Strategy Inventory–Teacher Rating Scale; α= .96; Cleary & Callan, 2013). Math achievement was measured by three distinct indices that varied in specificity: (a) performance on three MPS items completed during the microanalytic interview (Interview MPS), (b) a 15-item MPS posttest (Posttest MPS) that tapped a wider range of MPS skill than the Interview MPS measure, and (c) a norm-referenced test of global math skill, the Measure of Academic Progress (MAP).

SRL microanalytic interviews were administered by trained graduate students while participants engaged with a MPS task consisting of three word problems. The microanalytic questions were administered so that the phase dimension targeted by the question matched the temporal dimension of the MPS task. That is, *forethought* microanalytic items (goal-setting and strategic planning) were administered just before students began solving the MPS items because this is when regulated learners set goals and develop a strategic plan. Participants then completed the MPS items and were then asked questions targeting the strategies enlisted to solve the MPS problems as well as their metacognitive monitoring skills during problem solution. Next, the interviewer pointed out an incorrectly attempted word problem, and asked the participant to identify the perceived cause of failure as well as what they would do in future similar tasks. Immediately following the microanalytic interview, participants completed the questionnaires measuring SRL and self-esteem. The teacher ratings, MPS posttests, and MAP tests were completed within two weeks of the microanalytic interview.

Initial Findings and Implications

The primary purpose of my dissertation project was to develop and explore a SRL microanalytic protocol for mathematical contexts. Although analyses are not finalized, initial findings, along with a handful of related studies (Cleary, Callan, Peterson, & Adams, 2011; DiBenedetto & Zimmerman, 2010; 2013) support the notion that SRL microanalysis may serve as one of several useful tools that researchers and practitioners can use to better understand SRL in academic contexts. Specifically, the SRL microanalytic protocol converged with theoretically similar questionnaires and a teacher rating scale and was differentiated from a theoretically dissimilar construct (self-esteem). Interestingly, the preliminary results suggest that although microanalysis and the teacher SRL ratings differentiated from self-esteem, SRL questionnaires did not.

Initial analyses also support the predictive utility of SRL microanalysis across all three mathematical performance outcomes. SRL microanalysis emerged as a significant predictor of the Interview MPS task and the more comprehensive Posttest MPS task. Interestingly, the SRL microanalytic protocol also emerged as a significant predictor of the global math achievement test as well. For all three math outcomes, microanalysis emerged as a superior predictor compared to SRL questionnaires. Thus, despite the brevity and task-specificity of SRL microanalysis, it appears to have sufficient predictive power for both contextualized and global outcomes.

Along with prior research, the current dissertation furthers the goal of extending SRL microanalytic methodology to academics and provides initial evidence that SRL microanalysis appears to be psychometrically strong in academic contexts. These initial findings are exciting, but future research should explore the application of SRL microanalysis to more academic tasks and work toward developing intervention programs infused with SRL microanalysis. Furthermore, additional research should examine the practical application of SRL microanalysis for informing academic instruction, intervention, and tracking intervention progress.

References

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Cleary, T. J. (2006). The development and validation of the self-regulation strategy inventory-self-report. *Journal of School Psychology*, *44*(4), 307-322. doi:10.1016/j.jsp.2006.05.002

Cleary, T. J. (2011) Emergence of self-regulated learning microanalysis: Historical overview, essential features, and implications for research and practice. In B.J. Zimmerman & D.H. Schunk (Eds.), *Handbook of Self-Regulation of Learning and Performance* (pp. 329-345). New York: Routledge.

Cleary, T.J., Callan, G., Peterson, J., & Adams, T. (2011, April). *Using SRL microanalysis in an academic context: Conceptual and empirical advantages*. Paper presented at the Annual conference for the American Educational Research Association, New Orleans, LA.

Measuring Self-Regulated Learning during Mathematical Problem Solving with SRL Microanalysis (continued)

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

Cleary, T. J., Platten, P., & Nelson, A. (2008). Effectiveness of the self-regulation empowerment program (SREP) with urban high school youth: An initial investigation. *Journal of Advanced Academics, 20*, 70-107.

Cleary, T. J., & Zimmerman, B. J. (2004). Self-regulation empowerment program: A school-based program to enhance self-regulated and self-motivated cycles of student learning. *Psychology in the Schools, 41*(5), 537-550. doi:10.1002/pits.10177

De Corte, E., Mason, L., Depaepe, F., & Verschaffel, L. (2011). Self-regulation of mathematical knowledge and skills. In B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 155-172). New York, NY: Routledge.

Romberg, T. (1995). Reform in school mathematics and authentic assessment. Albany: State University of New York Press.1995-97445-000.

Winne, P. H., & Perry, N. E. (2000). Measuring self-regulated learning. In M. Boekaerts, P. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 532-568). Orlando, FL: Academic Press. doi:10.1016/B978-012109890-2/50030-5

Zimmerman, B. J. (2000) Attaining self-regulation: A social-cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13-39). San Diego, CA: Academic Press. doi:10.1016/B978-012109890-2/50030-5

Zimmerman, B. J. (2008c). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American Educational Research Journal, 45*, 166-183. doi:10.3102/0002831207312909

At the Intersection of Classroom Assessment and Self-Regulated Learning

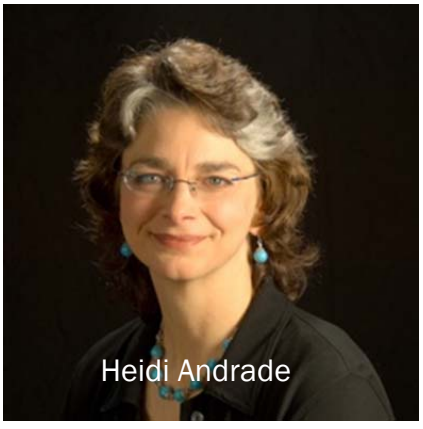
By Heidi Andrade and Hirah Mir

A new development in the field of classroom assessment is the framing of assessment in terms of the regulation of learning. Research and theory on classroom assessment (CA) and self-regulated learning (SRL), in particular, emphasize very similar regulatory goals and processes. As readers of this newsletter surely know, SRL generally involves four main processes: (1) goal setting, (2) the monitoring of progress toward the goal, (3) interpretation of feedback derived from monitoring, and (4) adjustment of goal-directed action (Allal, 2010). Perhaps less familiar is the current conception of assessment, which is defined as a process of collecting, evaluating, and using evidence of student learning via (1) the articulation of learning goals, (2 and 3) the provision of feedback to teachers and students about where they are in relation to those goals, and (4) adjustments to instruction by teachers as well as changes to learning processes and revision of work products by students. Hattie and Timperley (2007) summarize this regulatory process in terms of three questions to be asked by teachers and students: (1) Where are we going? (2) How are we doing? and (3) Where to next?

Scholars of classroom assessment are now exploring the ways in which classroom assessment methods can be used to guide students in SRL processes. In this article, we briefly explore the commonalities between assessment and SRL, and discuss some ways in which assessment methods can be used to support self-regulated learning. Our discussion is framed in terms of the four processes identified by Allal (2010): (1) goal setting, (2) monitoring of progress toward the goal, (3) interpretation of feedback derived from monitoring, and (4) adjustment of goal-directed action. We conclude with a few recommendations for cross-disciplinary research.

Goal Setting

Variously called learning intentions, learning goals, and learning targets in current scholarship on assessment and SRL, goals describe the skills, concepts, and dispositions that constitute the intended consequences of teaching and learning. Modern theories of regulated learning consider goals to be fundamental to regulatory proficiency and success (Hadwin et al., 2011), and theories of CA consider teachers' learning goals for students to be the basis of good assessment (McMillan, 2011). In order for assessment to function as the regulation of learning, teachers should support students in effective goal setting. This process involves setting appropriately challenging goals, and having students and teachers commit to these goals, in part by planning to apply relevant strategies (Hattie, 2009). Teachers who share their instructional goals with students allow them to begin to answer the question, "Where am I going?"


Heidi Andrade


Hirah Mir

Monitoring of Progress toward the Goal

Monitoring progress toward goals is a metacognitive process undertaken by the student herself, as well as a related but distinct process of formatively or summatively evaluating the evidence of student learning in terms of established standards. Teachers, peers, technology, and

At the Intersection of Classroom Assessment and Self-Regulated Learning (continued)

students themselves are all useful sources of evaluative feedback under the right conditions. In fact, the first author has argued elsewhere (Andrade, 2010) that students are the definitive source of feedback on their work because of their access to their own thoughts, feelings, and actions. This argument is grounded in research on SRL. Self-assessment is a core element of self-regulation because it involves awareness of the goals of a task and checking one's progress toward them. Schunk (2003) has shown that, as a result of self-assessment, both self-regulation and achievement can increase. Brown and Harris's (2013) recent survey of research on self-assessment suggests that there is evidence of a link between self-assessment and better self-regulation skills, "provided such self-evaluation involves deep engagement with the processes affiliated with self-regulation (i.e., goal setting, self-monitoring, and evaluation against valid, objective standards)" (p. 386).

Interpretation of Feedback

We have long known that the action taken by a learner in response to feedback depends, in part, on the way in which it was received (Black & Wiliam, 1998). In terms of both CA and SRL, this process involves interpreting feedback. Draper (2009) contends that teachers should help students construct appropriate interpretations of feedback by offering clear, often very simple, cues. The cues should indicate which interpretation of feedback is correct and constructive—for example, "This is a simple technical issue: You did not use the correct formula to solve this problem" (a comment on technical method), "Have you spent enough time and effort on this to do a good job?" (a comment on effort), or "It might be helpful to review your method of learning about this task. How did you interpret the third criterion on the rubric?" (a comment on the student's method of learning).

Adjustment of Goal-directed Action

The CA literature tends to emphasize teachers' adjustments to instruction in light of information about student learning. Theories of SRL tend to emphasize learners' adjustments to their goals, strategies, and outcomes in response to feedback from themselves and others about their progress. But we know little about the adjustments to goal-directed action that students make in light of CA. This lack of information reflects the fact that research in both fields has tended to employ measures of outcomes and products rather than of the processes of learning and revision. Since this limits our ability to construct a meaningful theory of change, research is needed on the cognitive and behavioral adjustments that students make (if any) in response to assessment and feedback.

Recommendations for Research

This article explored key links between the functions of CA and SRL, and provided examples of how CA can be used to guide students in goal-setting, progress monitoring, interpreting feedback, and revising their work. More research is needed to further understand how CA can promote and facilitate SRL. Some recommendations include focusing on the cognitive mechanisms of assessment; exploring the relationship between CA, students' interpretations of feedback, and learning; and the effects of assessment-related goal setting on self-regulation and achievement. Collaborations between SRL and CA researchers are likely to produce good questions, fascinating results, and classroom practices that leverage assessment in the service of the self-regulation of learning.

References

Allal, L. (2010). Assessment and the regulation of learning. In E. B. P. Peterson (Ed.), *International Encyclopedia of Education* (Vol. 3, pp. 348–352). Oxford: Elsevier.

Andrade, H. (2013). Classroom assessment in the context of learning theory and research. In J. McMillan (Ed.). *SAGE handbook of research on classroom assessment* (pp. 17–34). Los Angeles: SAGE.

Andrade, H. L. (2010). Students as the definitive source of formative assessment: Academic self- and the self-regulation of learning. In H. Andrade & G. Cizek (Eds.), *Handbook of formative assessment* (pp. 90–105). New York: Routledge.

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education, 5,* 7–74.

Brown, G., & Harris, L. (2013). Student self-assessment. In J. McMillan (Ed.), *SAGE handbook of research on classroom assessment* (pp. 367–394). Los Angeles: SAGE.

Draper, S. (2009). What are learners actually regulating when given feedback? *British Journal of Educational Technology, 40*(2), 306–315.

Hadwin, A., Järvelä, S., &Miller, M. (2011). Self-regulated, co-regulated, and socially shared regulation of learning. In B. Zimmerman, & D. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 65–86). New York: Routledge.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement.* New York: Routledge.

Hattie, J., & Timperley, H. (2007).The power of feedback. *Review of Educational Research, 77,* 81–112.

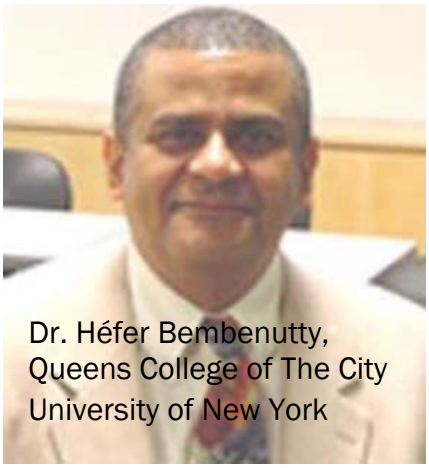
McMillan, J. (2011). *Classroom assessment: Principles and practice for effective standards-based instruction.* New York: Pearson.

Schunk, D. (2003). Self-efficacy for reading and writing: Influence of modeling, goal-setting, and self-evaluation. *Reading & Writing Quarterly, 19*(2), 159–172.

Note: This article is adapted from Andrade, H. (2013).Classroom assessment in the context of learning theory and research. In J. H. McMillan (Ed.), *SAGE handbook of research on classroom assessment* (pp. 17-34).Los Angeles: SAGE.

Culturalizing Homework: Promoting the Development of Self-regulatory Skills

By Héfer Bembenutty, Queens College of The City University of New York



Dr. Héfer Bembenutty, Queens College of The City University of New York

Research on homework during the last few decades has revealed the extent to which homework is related to teachers and students' development of self-regulatory skills (Bembenutty & White, 2013; Cooper, Robinson, & Patall, 2006; Dent, Cooper, & Koenka, 2012; Ramdass & Zimmerman, 2011; Trautwein & Köller, 2003; Xu & Corno, 2003). Findings from a recent meta-analysis found support for the association between self-regulation and homework (Dent, Cooper, & Koenka, 2012). For instance, Cooper (1989) found that high school students who have done homework had higher academic performance than students who did not do homework and Cooper and Valentine (2001) found that homework has positive causal effects on enhancing retention of information, understanding of course materials, and increasing study habits.

According to Zimmerman, Bonner, and Kovach (1996), homework is a process through which learners could acquire and develop self-regulation skills. Accordingly, during the process of completing a homework assignment, learners could assess their level of self-efficacy beliefs, set goals, select strategies, monitor their progress, seek help from appropriate sources, and self-reflect on homework outcomes. Despite findings supporting the association between homework and self-regulation and teachers' efforts to instill the value and importance of self-regulation of learning and instruction, some parents, students, and teachers remain concerned about the utility of homework. In this contribution, it is argued that at the forefront of these challenges is the lack of the culturalization of homework. Some research on homework reveals a simplistic or a general focus on the individual or the behavior and others confound ethnicity and culture, culture and socioeconomic status, culture and gender differences, culture and parental support, or culture and personality. It is proposed that the culturalization of homework could enhance teaching effectiveness and learners' development of self-regulatory skills.

To understand the culturalization of homework, the recent work of Zusho and Clayton (2011) reveals processes and challenges that could help educators and researchers conducting research on homework. Zusho and Clayton argue that culturalizing achievement goal theory and research could help improve assessments and aid in the interpretation and generalization of research on achievement goal theory. They argue that there is a need to examine how cultural factors relate to motivational processes for non-White learners while providing a more contextualized-based sociocultural view of motivation. In order to support their arguments, Zusho and Clayton adopted the perspective of Berry, Poortinga, Segall, and Dasen (2002), who proposed three meta-theoretical orientations: absolutism, relativism, and universalism.

Zusho and Clayton argue that the *absolutist approach* assumes that psychological processes are essentially universal and culture-free, contains that individual differences are largely a function of biological and personal factors, and assesses culture with a focus on race and country. The *relativist approach* assesses highly contextualized psychological processes and examines people's values but avoids comparative studies across cultures. The *universalist approach* combines the principles of absolutism and relativism and assumes the existence of universal psychological principles, recognizes the role of contextual and social factors, and uses instruments that vary culturally. Derived from the work of Zusho and Clayton, it is argued here that culturalizing homework will involve adopting a universalist approach to research. Bembenutty and Karabenick (2013) made a consistent argument related to culturalizing academic delay of gratification.

Adopting a universalist approach in order to promote the development of self-regulatory skills during homework requires the culturalization of theory and research on homework. Research and theory on homework will need to consider both universal psychological factors associated with homework. Research in this direction has been conducted (Bembenutty, 2010; Bembenutty & White, 2013; Dent, Cooper, & Koenka, 2012; Cooper & Valentine, 2001; Trautwein and Köller, 2003; Xu & Corno, 2003; Zimmerman & Kitsantas, 2005), but more research is needed. Research also needs to consider both individual and contextual factors and the situation in which learners engage in homework. In this vein, the work of Zimmerman, Bonner, and Kovach (1996), Stoeger and Ziegler (2008), and Bembenutty and White (2013) are somewhat in line with the universalist approach because they use homework logs where the individual, contextual, and situational factors are concomitantly assessed. Further, from the universalist approach, the culturalization of homework would involve placing more emphasis on the development of culturally-valid assessments and differences in homework processes across groups and cultures."

The culturalization of homework requires the development of new methods for assessing homework processes, ones that will consider the cultural factors that influence these processes. Researchers are invited to develop assessment tools that will be sensitive to learners from diverse cultural backgrounds, which could include microanalytic assessments, such as homework logs, computer traces, and cognitive interviewing. Consistent with Trautwein and Köller (2003), a universalist approach of homework requires assessing homework at the individual, classroom, school, and cultural levels. In sum, in order to promote the development of self-regulatory skills during homework, researchers and theorists will need to adopt a universalist approach to theory and research on homework. Culturalizing homework is a potential approach to end the debate on homework.

References

Bembenutty, H. (2010). Homework completion: The role of self-efficacy, delay of gratification, and self-regulatory processes. *The International Journal of Educational and Psychological Assessment, 6*, 1-20.

Bembenutty, H., & Karabenick, S. A. (2013). Self-regulation, culture, and academic delay of gratification. *Journal of Cognitive Education and Psychology, 12*(3), 1-16.

Culturalizing Homework: Promoting the Development of Self-regulatory Skills (continued)

Bembenutty, H., & White, M. C. (2013). Academic performance and satisfaction with homework completion among college students. *Learning and Individual Differences, 24*, 83–88.
Berry, J. W., Poortinga, Y. H., & Pandey, J. (Eds.). (1997). *Handbook of cross-cultural psychology: Volume 1. Theory and methods.* Boston, MA: Allyn and Bacon.
Cooper, H. (1989). *Homework*. White Plains, NY: Longman.
Cooper, H., Robinson, J. C., & Patall, E. A. (2006). Does homework improve academic achievement? A synthesis of research. *Review of Educational Research, 76*, 1-62.
Cooper, H., & Valentine, J. C. (2001). Using research to answer practical questions about homework. *Educational Psychologist, 36*, 143–153.
Dent, A., Cooper, H. M., & Koenka, A. C. (2012, April). *A synthesis of research on the relation between study skills and academic performance.* Paper presented at the 93rd annual meeting of the American Educational Research Association, Vancouver, B.C, Canada.
Stoeger, H., & Ziegler, A. (2008). Evaluation of a classroom based training to improve self-regulation in time management tasks during homework activities with fourth graders. *Metacognition and Learning, 3*(3), 207-230.
Trautwein, U., & Köller, O. (2003). The relationship between homework and achievement—still much of a mystery. *Educational Psychology Review, 15*, 115-145.
Xu, J., & Corno, L. (2003). Family help and homework management reported by middle school students. *Elementary School Journal, 103*(5), 503-518.
Zimmerman, B. J., Bonner, S., & Kovach, R. (1996). *Developing self-regulated learners: Beyond achievement to self-efficacy*. Washington, DC: American Psychological Association.
Zimmerman, B. J., & Kitsantas, A. (2005). Homework practices and academic achievement: the mediating role of self-efficacy and perceived responsibility beliefs. *Contemporary Educational Psychology, 30*, 397–417.

IAP

New Book Information

Advances in Help-Seeking Research and Applications

The Role of Emerging Technologies

Edited by ***Stuart A. Karabenick,*** University of Michigan *and* ***Minna Puustinen,*** INS HEA
Published 2013

Research on help seeking has primarily focused on classroom interactions that consist primarily of students asking teachers and peers for help. The rapid emergence of information and communications technologies and interactive learning environments, however, requires expanding the help-seeking landscape and rethinking such critical theoretical issues as the distinction between help seeking and information search, and whether help seeking is inevitably a social self-regulated learning strategy. There is also the need to focus attention on help seeking in the broader learning enterprise, which includes its role in the collaboration process, how to support adaptive rather than the over- or under-reliance on help seeking, as well as to scaffold help-seeking skills that render the process more efficient and useful.

To examine these and other issues, the present volume assembled contributions from internationally recognized scholars and researchers to capture the state of the art and to anticipate future developments in this expanding field. Its relevance extends to anyone attempting to understand the role of technology in education, including educational researchers and teachers who do now or who expect to use technology to support instruction, and the rapidly expanding numbers of those developing new technological applications.

CONTENTS: Foreword. 1. Introduction, *Stuart A. Karabenick and Minna Puustinen.* 2. Is It So Hard to Seek Help and So Easy to Use Google? *André Tricot and Nicole Boubée.* 3. Characterizing Sources of Academic Help in the Age of Expanding Educational Technology: A New Conceptual Framework, *Kara Makara and Stuart A. Karabenick.* 4. Using Learning Technologies to Support Help-Seeking in Higher Education Contexts, *Anastasia Kitsantas, Nada Dabbagh, and Susan Dass.* 5. Help Seeking in Computer-Supported Collaborative Inquiry-Learning Environments, *Kati Mäkitalo-Siegland Frank Fischer.* 6. Help -Seeking Intentions and Actual Help-Seeking Behavior in Interactive Learning Environments, *Nathalie Huet, Caroline Dupeyrat, and Christian Escribe.* 7. Analyzing Natural Data to Understanding How Students Seek and Obtain Homework Help Online, *Minna Puustinen and Josie Bernicot.* 8. Elements of Social Computing in Online Help Design: Fostering Help-Seeking Activities in Communities of Practice, *Silke Schworm and Nicolae Nistor.* 9. Learning with the Ecolab: Co-Constructing a Zone of Proximal Adjustment to Scaffold Help-Seeking Behaviour in a Simulated Science Microworld, *Rose Luckin.* 10. An Innovative Experimental Design for Addressing the "Assistance Dilemma" Using Interactive Learning Environments, *Inbal Nahum-Shani, Xi Lu, Melanie M. Henderson, and Susan A. Murphy.* 11. Conclusions and Future Directions, *Minna Puustinen and Stuart A. Karabenick.*

ISBNs:
Paperback: 9781623963347
Hardcover: 9781623963354
E-Book: 9781623963361

The SSRL SIG 2013-2014 Executive Committee Contact Information

Chairs
Timothy Cleary timothy.cleary@rutgers.edu
Daniel Moos dmoos@gac.edu

Program Chairs
Maria K. DiBenedetto maria.dibenedetto@baruch.cuny.edu
Marie C. White marie.white@nyack.edu

Secretary/Newsletter
Erika Patall patall@austin.utexas.edu
Taylor Acee aceet@txstate.edu

Treasurers/Membership
Adam Moylan adam@rockman.com
Linda Sturges LSturges@sunymaritime.edu

Website address: http://www.aera.net/SIG121/StudyingandSelfRegulatedLearning/tabid/12826/Default.aspx

Webmaster
Teya Rutherford teyarutherford@gmail.com