

ON THE REWARDS OF BEING OPEN TO OPPORTUNITIES AND THEIR CHALLENGES


Stuart A. Karabenick



The request to provide one's Acquired Wisdom is a daunting challenge, and others in this series have approached it in a variety of ways. My own is to chronicle how I negotiated a scientific career filled with barriers to overcome and opportunities to contribute to the fields of motivation and self-regulated learning (SRL), most generally. As you will see, mine was not a straight path but one filled with unexpected events that changed how and what I accomplished along the way. That includes never being satisfied that you know enough. I hope that you find something that helps you on your own journey.

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Remembering the Life, Work, and Influence of Stuart A. Karabenick
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IN THE BEGINNING

I was raised in a first- and second-generation Jewish immigrant family that placed major emphasis on learning and the importance of school. However, my early school experiences at a religious school (half-day religious studies, half the normal school curriculum) did not turn out well – actually it was awful. Upon transferring to a public school, it was obvious how much I had missed since I failed most of my fourth-grade subjects with lots of red marks on my report card. It took a couple of years to catch up. And it may be that climbing out of that academic abyss was formative in how to deal with setbacks, and what it takes to master a subject – passion and perseverance (GRIT?). I remember always being interested in science. Science kits, science classes, building electric circuits – just to see how things work. I remember drawing a world map when in middle school and “discovering” how the South America and Africa coastlines fit together. I was excited about it, even though my teacher was not impressed, but this was before we knew about seafloor spreading. I was under considerable pressure to join the family building business, and I enrolled in a magnet high school with an architecture program, followed by acceptance into the College of Architecture at the University of Michigan (UM). I was on my way I thought (in my dreams) to applying Frank Lloyd Wright’s and Meis van der Rohe’s design principles to residential construction.

Well, let’s just say that dream was short-lived after experiencing how dull the classes were and realizing how restricted the architecture program was, but even more so after exposure to the university’s exciting array of intellectual opportunities. Flipping through the catalog there was just so much more to learn – and of course more science – a thirst that has never been quenched. It did not take me long to gravitate to the College of Literature, Science, and the Arts, and eventually like so many other students, to psychology. After a couple of introductory courses, an invitation to join the new psychology honors program sealed my commitment. The program provided personal exposure in small classes to many of the major researchers in the field at that time. These scholars spanned almost every area, including my honors advisor, Bob Zajonc, in social psych. However, most of my time as an undergrad was spent in Jack Atkinson’s lab, which I joined after connecting with his student Bernie Weiner, a graduate student instructor in one of my psych classes. You could say Bernie became my first mentor. Being socialized into the motivation world, and having already taken psychology graduate classes as an undergrad, I turned down Stanford to stay at UM, to which, as it turns out, I returned toward the end of my career.

Graduate school at Michigan continued immersion into an exceptional intellectual environment. I tried to take advantage of it all. In addition to major work in social psychology, there was emerging research in such areas as Jim Olds’ experiments on pleasure centers in the brain, Clyde Coombs’ math psych program, and Bill McKeachie’s early work on educational psychology. Bill McKeachie eventually became a major figure in my intellectual (and personal) life. I also regularly attended meetings of the Research Center for Group Dynamics that had moved to UM. And there were endless interactions with

many graduate students who became psychology luminaries, including Amos Tversky (whose talks on conjoint measurement we tried very hard to understand). Many students either visited or became part of the Atkinson research lab, which was devoted not only to his model but also to motivation theory and research more generally. Some lab visitors were from other programs, such as Paul Slovic, who went on to conduct pioneering work in decision theory collaborating with Robyn Dawes.

Thus, I was socialized in the McClelland–Atkinson tradition based on personality, assessed by the Thematic Apperception Test (TAT), and with the person–situation interaction approach, exemplified by Jack’s expectancy-value risk-taking model, in which incentive values of success and failure were weighted, respectively, by motives to approach success and avoid failure. Atkinson and Birch also developed a creative Dynamics of Action model of motivational “forces” to understand persistence and change in activities. My dissertation was based on that theory, but I did not pursue it further, and the theory failed to achieve traction given its required understanding of the mathematics and need for computer power and modeling that were not commonly available at the time.

STARTING OUT

Needing a year to finalize my dissertation, I took an attractive position close by in a new psychology department at Eastern Michigan University (EMU). Several factors led to my decision to remain there, including the opportunity to shape the program that had just split from a highly respected education college. It also allowed me to maintain connections with UM (at a time when physical proximity was important). EMU also offered access to large numbers of students for research who were more representative of the general population than the thin slice of upper SES students at UM. Teaching such a diverse student population required adjustments to make psychology and research methodology relevant. Not having a PhD program was quite an adjustment as well, although some of my advisees were excellent students who went on to successful careers. My first published study with a colleague continued in the Atkinson tradition. It nicely confirmed the model’s predictions that performance depended on task difficulty and motives both to approach success and to avoid failure (Karabenick & Youssef, 1968). It was quite memorable since our paper was accepted immediately and the editor was very complimentary. Studies using the TAT that followed included work by Matina Horner, another Atkinson student. She proposed the construct *fear of success*: that women were generally more concerned than were men with the negative consequences of outperforming others.

Challenging that categorical assertion, a series of studies in the person–situation tradition found, for example, that while fear of success-present females performed less well against a male than a female opponent, fear of success-absence females performed better against a male than a female opponent (Karabenick et al., 1976). All the while, the motivation world was shifting, and I continued to struggle with that reality. Relatively, stable motives did remain in

the motivational lexicon, for example, as Andy Elliot subsequently incorporated approach and avoid achievement motives into his goal model, and David Winter and Oliver Schultheiss continued to work on implicit motives that were assessed with the TAT. However, for many, the dominance of relatively stable personality variables in motivation theory was over given theoretical competition. One highly attractive alternative was Weiner's attribution theory. Based on Fritz Heider's work, it prompted a couple of my studies on how locus of control beliefs influences the valence of success and failure (Karabenick, 1972) and relations between locus of control and self-esteem (Fish & Karabenick, 1971). Another was expectancy-value theory (EVT), although one could claim that it had yet to reach its full potential in motivation theory at the time.

The decline in theory and research based on relatively stable personality characteristics meant reaching out for new ways to understand motivational influences on learning and performance, which, in addition to attribution theory, led to the emergence of achievement goal theory (AGT). AGT had a seismic impact on the field (and my own development), due in large part to the creative work by John Nicholls. I vividly recall a meeting in the early 1980s, organized at the University of Michigan by Jacque Eccles for the "Illinois group." That meeting also included a prophetic introduction to Marty Maehr. AGT represented a true paradigm shift in the classical sense by providing an alternative conceptual framework in which person and situation dynamics could be more adequately understood, including its major constructs – personal goal orientations and achievement goal structures – that were more malleable than were relatively stable achievement motives. In addition to the "cognitive revolution" occurring at the time, many consider that AGT was the final blow to the McClelland–Atkinson approach to achievement motivation. During my last meeting with Jack I tried to suggest ways to adjust to the new reality, to increase his awareness of emerging AGT research, and hint at how there might be ways to adapt his models, or to at least think about it. My efforts were to no avail, and I was one of his last students.

Completely abandoning a paradigm left an uncomfortable void. After considering the options, I decided to focus more on social psychological phenomena, but always with an eye on motivation. It turned out to be a critical decision that subsequently paid off. A "hot" area at the time concerned the determinants of helping, spurred on by studies of bystander intervention. Rather than focusing on such factors as diffusion of responsibility to explain why many don't help in an emergency, EMU colleagues Peter Benson, Richard Lerner, and I (Benson et al., 1976) conducted a field study at an airport to determine whether travelers who used a phone booth (remember them?) would mail or otherwise forward a "lost" graduate school application they found depending on the student's physical attractiveness and race revealed by a photo attached to the application. Both were important, and, yes, prettier people did get more help. It's one of my favorite studies and continues to be frequently cited. Another study in the person–situation tradition focused on the congruence of helper and help recipients' characteristics. Topics included attitudes on controversial issues and political preferences, which had an effect on whether voters helped a politically



At AERA 2019 in Toronto With Julie Turner (left) and Fani Lauermann (right)

identified person in need when handing out literature. This effect would probably be more dramatic given today's more partisan political climate (Karabenick et al., 1975). Another example dealt with the claim that men prefer skill whereas women prefer tasks in which success depended on luck. Well, that could not go unchallenged since from a motivational perspective, preferences might also depend on the sex-related nature of the task rather than just a skill-chance preference. The first challenge was finding tasks that men viewed themselves as less capable than did

women. Turned out that (surprise!), except for child-rearing, men claimed they were better than women at everything! Sure enough a series of studies found that task type moderated skill-chance preferences: as before, men preferred skill over chance and women preferred chance over skill tasks for masculine tasks whereas the exact opposite was true for feminine tasks (Karabenick et al., 1983)

DISCOVERING HELP SEEKING

It turned out that immersion in the social psychology literature provided the preparation for a pivotal shift in my scientific focus and career more generally. It occurred when coming across a set of volumes on help giving that also included one on help seeking that contained work by Russell Ames, Arie Nadler, and most importantly, Sharon Nelson-Le Gall. Here was a topic that melded my interests in achievement motivation and social psychology, since seeking help when learning most often involves social interaction. It also coincided at the time with my work on the initial phases of online computer conferencing as a way for students to both give and ask for help. Ames framed help seeking in terms of attribution theory based largely on Weiner's work. It was Sharon Nelson-Le Gall, however, who provided the tipping point for how we now view help seeking. She contrasted the way help seeking had been viewed as executive (e.g., asking directly for solutions), which is work avoidant and perpetuates dependency, with instrumental help seeking that is designed to overcome learning difficulties by asking for ways to solve problems, as an important developmental skill. Sharon and her colleagues had conducted several influential experimental studies of help seeking but had not extended the work to school settings. Coincidentally, Richard Newman and colleagues had begun pioneering research on students' perceived benefits and costs of help seeking by elementary- and middle-school students. For example, whereas students recognized the social costs of seeking help at the beginning of middle school (e.g., feeling dumb or embarrassed), those beliefs did not affect their willingness to seek help until the later middle-school grades. Other

contributions by Newman, as well as extensive and creative studies by Ruth Butler and Allison Ryan, have contributed significantly in ways that would take too long to summarize here. Thus, I began my own work on help seeking with my colleague John Knapp on the relation between help seeking, the need for help (Karabenick & Knapp, 1988a), and the influence of formal and informal sources of help, which continues to this day.

TAKING ADVANTAGE OF OPPORTUNITIES: ENTER NCRIPTAL

As fate would have it, awareness of my work on help seeking, published in education journals, prompted an invitation from Bill McKeachie and a recent (and at the time relatively unassuming, if you can believe it) UM PhD – Paul Pintrich – to join the National Center for Research to Improve Postsecondary Teaching and Learning (NCRIPTAL) that had just started at UM. Although having maintained my contact with Bill over the years, involvement in the Center could not have been more prophetic and literally changed everything. I jumped at the opportunity. It vastly expanded my intellectual horizons, professional network, and more generally shifted my work to adopt a more applied educational psychology perspective compared to the more controlled but less directly applicable experimental and lab studies I had been conducting. Although the invitation came on the heels of my studies of help seeking, my involvement quickly expanded into the full SRL spectrum operationalized by the Motivated Strategies for Learning Questionnaire (MSLQ). This was an inflection point in the development of the SRL–motivation relationship – the skill and the will – as Paul liked to phrase it. Attended by faculty and students from several universities (some international), meetings became a fertile breeding ground for the exploration of theory and research in all phases of motivation and SRL in education, primarily framed by EVT.

In addition to the group focusing on motivation and learning, NCRIPTAL included another group focused on the emerging use of learning technologies, one example of which was their hosting of the EDUCOM/NCRIPTAL educational technology software contest that I helped judge. It was an exciting time when the potential for educational technology to transform education seemed limitless, and computer companies were throwing money at the field to encourage development. One EDUCOM meeting was held at UM, where it had been founded years before, and another in Washington D.C. that resulted in my meeting Steve Jobs at the time he was marketing the NEXT computer before his transition to Apple. My strong interest in this field led me to accept a partial appointment directing a Center for Instructional Computing at EMU. My job included faculty professional development, and introducing and managing one of the first university computer conferencing systems.

Well understood today of course, computer-mediated communication (CMC) reduces the evaluation threat of asking for help due to the increased psychological distance between help seeker and help provider. And, in the case of asynchronous

communication at least, it decreases time pressure during such interactions. After a crash course in programming to design a way to ensure that students could be made to fail at a concept formation task, John Knapp and I conducted the first experimental test that we knew of on the effects of help-seeking privacy. The incidence of help seeking when performing the difficult performance task that we established increased markedly – in fact doubled – when help was available from a “safe” stand-alone (nonnetworked) computer compared to the incidence of help when available from a personal source, namely, a networked research assistant reachable via the same computer (Karabenick & Knapp, 1988b). That computer-mediated privacy increases help seeking by reducing threat seems quite obvious now, and we continued to probe that issue.

Despite an extremely productive five years that generated numerous motivation- and SRL-related products and a significant presence in research and theory in higher education more generally, NCRIPAL funding was not renewed. The effort came to a screeching halt. However, there was no turning back, and Paul, Bill, and I continued to meet with others in our College Research Group. My work continued with two additional studies on help seeking. One study with visiting scholar, Rajeev Sharma from India, produced a model of how classroom questioning is related to perceived teacher support of questioning (Karabenick & Sharma, 1994). In another study, one of my favorites, I went back to the laboratory to experimentally study social impacts on metacognition, specifically whether knowing that other learners have questions influences one’s own metacognitive comprehension monitoring judgments (Karabenick, 1996). It was a major gamble and took several years to create the appropriate conditions, conduct multiple studies, and the results were not verified until one experiment that included a critical control condition. Essentially I found the more you are aware that others ask questions, the more you question whether you understand the material being presented. There was also evidence that students consider themselves more confident that they understand the material if nobody else asks. This has implications for such effects in many college classrooms in which students remain silent despite doubting their lack of comprehension. The results of that study have implications for one of my current areas of research.

The NCRIPAL experience also increased my desire to promulgate its research. Given the increased focus on college teaching and learning at the time, my education school colleague Jan Collins-Eaglin and I decided to establish the Research on Teaching and Learning (RTL) program at EMU. RTL provided funding for faculty to conduct research on teaching and learning in their own area of expertise. The curriculum included many of the resources produced and frameworks promoted by NCRIPAL and a crash course on research design, motivation, and SRL, and classroom assessment techniques. Most of the faculty involved, almost none who had any research expertise, ultimately designed, conducted, and presented to their departments, entirely credible research. Some of it was published. One significant study with a clinical psychology colleague provided evidence that SRL strategies mediated the effects of psychopathology on academic performance (Brackney & Karabenick, 1995). Similar to the fate of NCRIPAL, despite overwhelmingly positive response from faculty participants,

and raves from McKeachie to the university president about the value of RTL, it was canceled. Some suggested the problem was it was too successful and placed administration in an awkward position of having to find resources to maintain it. It was another frustrating experience but provided many more lessons in negotiating organizational constraints.

Nevertheless, RTL had an effect as more of my colleagues became familiar with RTL. This included Phyllis Noda, director of the program that prepared teachers of English language learners (ELLs, called Limited English Proficient at the time). She became a close colleague and collaborator on several subsequent projects that promulgated motivation and SRL principles. It began with a large federal grant to support the professional development for teachers of ELLs in many parts of the state of Michigan impacted by migrant workers. We were then delighted to learn that our grant received the highest rating in the country among the more than 150 submissions and invited to participate in a session held at the US Department of Education (USDOE). Interestingly, after being honored, the education personnel used the remainder of the time promoting the No Child Left Behind initiative. For what it's worth, a second proposal that would have expanded our much-heralded first grant received poor reviewer ratings and thus completely rejected. This experience (and others) revealed a lot about confronting the quality of USDOE reviewers at the time in stark contrast to those recruited by the National Science Foundation (NSF).

Reaching back to my social psychological roots, I became involved in extending the study of motivation to various cultural contexts. One consisted of motivation, teacher beliefs, and attitudes regarding instruction with ELL students (Karabenick & Noda, 2004). Among the results consistent with other motivation research, we found that teachers with more favorable attitudes toward ELL students were more likely to take a mastery-oriented approach to instruction and had higher ELL teaching self-efficacy. A more recent follow-up study of the district teachers replicated the results. A third project provided educational research and grant-related expertise to several underresourced Detroit public schools that were competing for Annenberg Schools of the twenty-first-century funding.

CPEP AND BEYOND

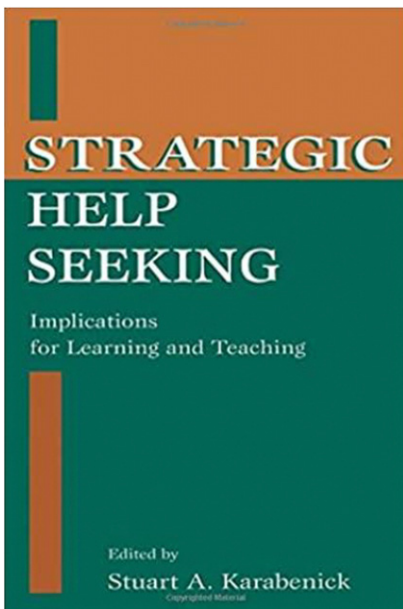
During that time, my informal intellectual immersion in the Combined Program in Education and Psychology (CPEP) at UM continued to deepen. It can arguably be considered one of the major centers for research on motivation at the time. Colleagues included Jacques Eccles, Marty Maehr, Carol Midgley, Phyllis Blumenfeld, and their graduate students who continue the motivational lineage and with whom I have subsequently collaborated, including Avi Kaplan (Kaplan et al., 2009). It was also during the time that Barbara Hofer and Paul produced their work on personal epistemology. Thus, I was surrounded by colleagues and students in the 1990s during the ascendancy of AGT, EVT, and SRL, especially Carole (who we unfortunately lost at that time) and Marty's significant work on

AGT with the publication of Patterns of Adaptive Learning Scales (PALS) and a subsequent edited volume.

Significant as well were increasing connections with the motivation community of the American Educational Research Association (AERA) given Paul's large circle of colleagues and friends (too numerous to mention). These included Claire-Ellen Weinstein who developed the Learning and Study Strategies Inventory (LASSI), a self-assessment manual analogous to the MSLQ, and the leader of the southern end of the UM-University of Texas intellectual partnership. Another was Dale Schunk, who had coauthored with Paul their influential motivation in education text, Phil Winne along with Nancy Perry, a major force in SRL research and theory, and Allan Wigfield, who with Jacque, profoundly influenced the degree and range of EVT. Also emerging from that period of SRL expansion was the influential volume that Paul edited with Monique Boekaerts and Moshe Zeidner, *Handbook of Self-Regulation*.

At about the same time as did Barry Zimmerman, and in one of my favorite, and I believe, most important works, Knapp and I demonstrated that "better" learners were more rather than less likely to seek help when necessary, as well as to use other forms of cognitive, metacognitive, and resource-management strategies (Karabenick & Knapp, 1991). Subsequent studies have continued to promote this perspective – help seeking is a potentially adaptive learning strategy rather than automatically signaling dependency. The work was also seminal by demonstrating the importance of taking the need for help into consideration

when studying help seeking, either by its manipulation, its assessment, and statistical partialing or through the use of contingent likelihood statements, following closely on formats used as behavioral intentions in the theory of planned behavior. Most generally, without a handle on need, observations are usually not enough to fully understand help seeking or its absence. My own work accelerated when collaborating with Richard Newman, whose research was included in the first volume I devoted to research on academic help seeking – *Strategic Help Seeking: Implications for Teaching and Learning* (Karabenick, 1998), which also contained chapters by Sharon Nelson-Le Gall, Arie Nadler, and Paul and then CPEP student (currently its program chair) Allison Ryan.



MSP-MAP

Without doubt an even more pivotal set of events occurred when Paul Pintrich and Marty Maehr were asked to submit a proposal to the Math and Sciences Partnership Program (MSP) of the Education and Human Resources (EHR) directorate of NSF on what, at the time, they considered “non-cognitive” influences on learning and achievement. Paul and I wrote the proposal – the Math and Science Partnership-Motivation Assessment Program (MSP-MAP) – that was immediately accepted. They even asked us to increase the budget! This was the first EHR motivation proposal that exemplified Pasteur’s Quadrant of use-inspired basic research (Stokes, 1997). In addition to conducting our own research, the project’s role was to act as a resource to provide consultation on the motivation research conducted by other MSP grantees, including ways for them to assess motivation and SRL. Tragically, Paul passed away just a few days after we learned of its acceptance. This was of course an incalculable loss to those who knew him and, needless to say, the field generally, which we still feel today. Among his last publications that emerged subsequently was on the assessment of SRL, with CPEP alum Chris Wolters and me (Wolters et al., 2005).

There was no question about the need to continue our work, and I moved to the UM School of Education and CPEP to administer the grant and, to the extent possible, maintain its contributions to motivation and SRL, all the while of course mindful of the limits to achieving that goal without Paul. It was an incredible professional and personal challenge and responsibility. One of the first steps was a presentation to NSF EHR program officers (POs) about our perspective on “motivation” in contrast to their “non-cognitive” designation – trying to convince them that motivation theories do in fact include cognitive elements. In addition to educating our program officer, Larry Suter, that session was pivotal in that another of the POs became our champion supporter in the EHR sector of NSF. This session and subsequent presentations at national project meetings exposed hundreds of math and science education researchers, teachers, and practitioners to contemporary motivation theory and research. We worked closely with other grantees, especially with mathematics faculty and their MSP grant at Auburn that made considerable use of our expertise. It provided an important contact for research and publication opportunities for our graduate students, including Melissa Gilbert (Gilbert et al., 2014), as well as immersion into the math education world more generally.

MSP-MAP became a vibrant and pivotal center of activity in CPEP that involved theory, survey construction, and ultimately longitudinal data collection from approximately 12,000 students and their teachers in hundreds of math classes in school districts in Orange County, CA. All using hard copy before the availability of today’s online surveys, which required laborious work to process after having been trucked across the United States. The project operations, including intense project lab meetings, and related dissemination activities would require much more space than available here to detail, but which can be found at www.mspmap.org. After finishing her work at CPEP, Annemarie Conley, who was instrumental in MSP-MAP success, moved to UC-Irvine. It became the data

repository and hub of subsequent work when the grant ended. As a consequence of the move, many UCI students became part of the project. Furthermore, the connection fostered numerous collaborations with graduate students there who employed the data for dissertations and studies and with whom I continue to work, including Kat Schenke and Erik Ruzek (e.g., [Schenke et al., 2018](#)). Facilitated when Jacque Eccles moved to Irvine, subsequent NSF support has allowed us to build on MSP-MAP results as well, one of which is a current longitudinal study following up students who participated in the initial project, generating research on STEM issues with the primarily Hispanic Orange County student population (see campstudy.education.uci.edu).

In addition to numerous publications emanating from MSP-MAP, the project was an opportunity to focus on how to ensure maximum effectiveness of self-report surveys. We used cognitive interviews to establish cognitive validity (as distinct from construct validity) and to assess the degree to which respondents interpreted items as researchers intended. I had long been dissatisfied with inferences from a number of scales used in motivation and SRL research, including whether respondents interpreted items as were intended. That depends on the extent to which the respondent's mental processes reflect the constructs being measured, as discussed in an *Educational Psychologist* article ([Karabenick et al., 2007](#)), a portion of the title that asks, *Do They Think What We Mean?* One example involved the assessment of classroom mastery goal structure. It turned out mastery goal structure items were more cognitively valid when students were asked to report on their "teachers" rather than when asked about their "class." This approach has since been used in a number of studies, including one that Jean-Louis Berger and I conducted on self-report items used to assess metacognition ([Berger & Karabenick, 2016](#)). Other researchers have reported a sizable proportion of middle-school students failed to understand self-regulation items used in PISA studies.

Grant activities and the CPEP program also brought a series of visiting scholars, including Jean-Luis Berger from Switzerland who collaborated on a study of motivation and SRL in high-school math classes ([Berger & Karabenick, 2011](#)), and Eleftheria Gonida from Greece, who, in addition to other collaborations on help seeking ([Gonida et al., 2014, 2018; Karabenick & Gonida, 2019](#)), subsequently edited an *Advances in Motivation and Achievement* volume on motivation in education at a time of global change ([Gonida & Lemos, 2019](#)). There were also numerous exceptional graduate students, including Loren Marulis, who studied early childhood metacognition, Bridget Dever, who focused on teaching style ([Dever & Karabenick, 2011](#)), and Christina Bonney and Fani Lauermann, who has already established herself as an exceptional international scholar. Fani's first major contribution resulted from our collaboration that followed up on my deep concern with the detrimental effects of the teacher accountability movement that David Berliner and others rightly criticized. An important consequence of probing the issue generated an *Educational Psychologist* article on teacher responsibility in an era of accountability ([Lauermann & Karabenick, 2011](#)). Fani also contributed to work on delay of gratification together with visiting scholar Lily Zhang ([Zhang et al., 2011](#)), a topic further explored with Hefer Bembenutty ([Bembenutty & Karabenick, 2013](#)), whose master's thesis I chaired when we were both at EMU.

Thus, what began with a request from NSF for a proposal on “non-cognitive” influences on math and science achievement has more than fulfilled its initial purpose and continues to impact motivation research. Needless to say, the opportunities it afforded vastly expanded my ability to contribute to motivation research. It also resulted in continuing Paul Pintrich’s legacy upon assuming his coeditorship with Marty of the *Advances in Motivation and Achievement* series, and subsequently with Tim Urdan after Marty’s retirement (e.g., [Karabenick & Urdan, 2014](#)) that resulted in volumes on such topics as social psychological perspectives, transitions across schools and cultures, motivational interventions, contributions of neuroscience to motivation. Although the program subsequently changed, Jacque Eccles and I, along with Phyllis Blumenfeld, were able to maintain its focus on motivation and SRL for several years. One noteworthy aspect of that focus consisted of an extensive university–school partnership coordinated by then graduate student Kara Makara, and subsequently Alanna Epstein, in which teachers participated in designing surveys and data collection to acquire actionable information to guide school practice and policy as well as teacher professional development, as described in [Makara and Karabenick \(2013\)](#). Another graduate student, Jeffrey Albrecht, also developed a collaboration with a high-needs high school that included research to examine motivation, SRL, and such issues as the importance of making education relevant in a changing world ([Albrecht & Karabenick, 2018, 2019](#)).

ENTER EARLI

Continuing on my intellectual journey, in addition to playing a larger role in AERA, including the Motivation in Education and the Study and Self-Regulation Learning (SSRL) Special Interest Groups (SIGs), and the American Psychological Association (APA), another consequence of the NCRIPAL connection was further opening the door to the international motivation and SRL communities. This began with my participation in a Pintrich memorial session at the 2003 European Association of Research on Learning and Instruction (EARLI) meeting. That event resulted in my integration into the Motivation and Emotion SIG that was combined with the International Conference on Motivation (ICM). Although Paul and Bill McKeachie had frequently extolled the virtues of their international experiences, I cannot begin to describe the full significance of direct connection with the EARLI community. Although I was familiar with numerous non-US researchers who attended APA and AERA, from the first conference it was crystal clear that EARLI was an opportunity to expand understanding about motivation and SRL in ways not captured by the primarily US-based meetings. It was also a time of expansion of the primary EARLI journal, *Learning and Instruction* (JLI). My involvement in EARLI significantly increased when I was elected co-chair of the Motivation SIG (the first from the United States), and my subsequent appointment by Anastasia Efklides as an associate editor of JLI. Both even further expanded my grasp of motivation theory and research. This also exponentially increased my

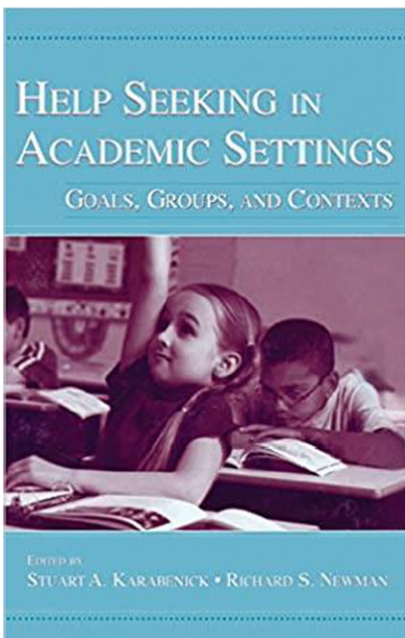
international contacts, particularly graduate students globally, and broadened the audience for my research related to motivation and SRL, especially in Europe. Receiving a lifetime achievement award from the EARLI Motivation and Emotion SIG was a wonderful capstone to the entire experience.

BACK TO HELP SEEKING

Another consequence of this expanded network was a second volume on help seeking, with Newman: *Help Seeking in Academic Settings: Goals, Groups, and Contexts* (Karabenick & Newman, 2006) that further promulgated the expanding focus on help seeking. In addition to help seeking in classrooms, both volumes promoted contributors whose research has implications for areas such as student support services, collaborative learning, cultural influences, learning in nonschool organizational settings, and the influences of technology. Ruth Butler had conducted several influential studies of help seeking, including exciting new avenues of research on how teachers' achievement goals for teaching, using new scales that she has developed, are related to both their own help seeking and that of their students. Simone Volet and I reported that the likelihood of seeking help decreased as a function of the cultural distance between the help seeker and helper. Another of my favorite studies during that interval examined classroom help seeking in large college classes framed by AGT, specifically achievement goal structures (Karabenick, 2004). Within-class differences in perceived class emphasis on mastery positively predicted help-seeking approach and negatively

predicted help-seeking avoidance patterns, whereas perceived class emphasis on performance-avoid goals positively predicted help-seeking avoidance.

Technologically mediated help also raises an issue of whether we can maintain the claim that help seeking is an inherently social-interactive learning strategy given that help is often delivered by nonpersonal sources. One response is to recognize that what we consider "social" is determined not by the real presence of others, but by the existence of social influence, which has traditionally been defined as interpersonal influence that is real, imagined, or implied. What matters, then, is not the physical presence of another person or the medium, but the degree of social influence. When so much of what we do is tracked, gauging the degree of social influence would be a good way to



determine the motivation-related effects of privacy. I have stressed that point to those developing help systems, reminding them that such systems do not operate in a vacuum but rather are connected to and potentially influenced by the instructional context in which they are employed. Yet much of the technology-based research on help seeking has not taken the motivation-related context (e.g., degree of mastery and performance focus) into consideration. A related point concerns the development of various forms of artificial intelligence (AI) that decrease the ability to distinguish between human and artificial sources, especially when present in human-like forms. It would be better to think of a continuum of social influence and a definition of help seeking that can accommodate different positions of social influence along that continuum.

Minna Puustinen and I published a volume ([Karabenick & Puustinen, 2013](#)) that includes chapters by leading contributors on help seeking that involves technology. The explosion of social networking and connectivity more generally has completely altered the help-seeking landscape. Examples of contributions to the volume include help seeking in virtual worlds, in collaborative learning environments, and by Minna on natural language analyses of students' interactions in online tutoring sessions with teachers. Following the emphasis on resource management, former graduate student Kara Makara and I proposed a schema that dimensionalized help resources and reported the incidence of college students' use of the many help resources on a college campus ([Makara & Karabenick, 2013](#)).

FORAYS INTO CULTURE

Cultural issues have continued to play a role in the way I think and how work generalizes. An early experience occurred when appointed to Akane Zusho's dissertation that addressed Anglo and Asian American views of self as independent or interdependent. Another issue explored Western versus Middle Eastern differences in the Hofer-Pintrich dimensions of personal epistemology. We found Omani Arab students, more so than US college students, were more likely to accept scientific authorities as the basis of scientific truth ([Karabenick & Moosa, 2005](#)). Closer to home, a multimethod study with Revathy Kumar examined the cultural experiences of middle-school students and their teachers in districts with significant representations of Muslim Arab and Christian Chaldean backgrounds (e.g., [Kumar et al., 2019](#)). Among several advances, we described a way to capture cultural influences in this school population using the concept of Culturally Inclusive and Responsive Curricular Learning Environments (CIR-CLEs). Finally, similar to my collaboration with Moosa, interdisciplinary collaboration with Mansoor Moaddel, a sociologist colleague with expertise in Middle Eastern religions, provided the opportunity for me to examine relations between religious fundamentalist beliefs and peoples' reliance on information and attitudes from religious and secular authorities. We devised a scale to assess religious fundamentalism defined as a set of beliefs about religion rather than specific religious beliefs and tested it on representative adult populations in eight Middle Eastern countries ([Moaddel & Karabenick, 2018](#)).

ON MOTIVATION, SRL, AND TECHNOLOGY

Motivation and SRL continues to be a major focus for me in two ways: one theoretical, the other applied. The theoretical study concerns sources of motivation in SRL. Despite their differences, goals are considered the primary determinant of motivation, which can be labeled as outcome-based. However, models of the process have not taken the motivational influence of the strategies themselves into consideration – that some strategies are more worthwhile and cost more than others. New studies indicate that this strategy-based motivation can more adequately explain students' use of strategies, as reported in a recent EARLI keynote – <http://www.youtube.com/watch?v=1A55kxn3ssM>.

The two applied efforts fuse motivation and SRL to improve college students' learning and performance. The first involves being part of an interdisciplinary team that designed a new student dashboard to accompany learning management systems. For example, EVT principles were brought to bear when determining the cost-benefit ratio of using information, and SDT autonomy principles contributed to providing users the capacity to customize how information is presented. We found more motivated and strategic students were more likely to take advantage of information the dashboard provided (Kia et al., 2020). That the research used both self-report and online tracking is an example of the ongoing controversy about the relative value of these sources of information. A second project to begin soon will test effects on help seeking and other variables like identity and persistence when students are provided a “back channel” to ask their own questions and anonymously observe others asking questions during large interpersonal introductory STEM classes. The study design even includes the potential to determine effects of backchannel access on metacognitive monitoring. And so the work continues.

ACQUIRED WISDOM? – MORE LIKE LESSONS LEARNED



International Conference on Motivation in Thessaloniki, Greece (2016) with (left to right) Fani Lauermann, Author, Marina Lemos, Anastasia Efklides, Eleftheria Gonida, and Marold Wosnitza.

The trajectory of my work on motivation and SRL began when I was an undergraduate and has taken many forms since then. However, a core element remains from very early in life – being a scientist. For what it's worth, here are a few observations that may guide your thinking about your trajectory.

- As should be obvious from the history of my career, I believe collaboration is important. There is so much to be gained by working with others: peers, junior researchers, and students.

- Explore other disciplines and ways of thinking.
- Don't be discouraged! As in every science, setbacks are the norm rather than the exception.
- Some of the most important findings are those unexpected.
- In our Google world there is no excuse for not keeping up with the literature. It's really disheartening when reading journal submissions and articles that omit important work.
- Applied work can be frustrating and may not result in publishable research, but it can be enriching in ways that are not always predictable.
- You will be frustrated by the publication process, but remain committed. I have finally published articles that required more than one journal and multiple revisions. That's just the nature of the process. Not all reviewers are as perceptive as you are, but those who take their time to provide constructive criticism are to be applauded.
- Being a journal editor requires a major time commitment but is worth the effort.
- Cultivate and sustain positive connections with colleagues.
- You are never finished; there is always something more to learn.
- Colleagues are critical to your success in so many ways.
- Finally, celebrate the opportunities this lifestyle affords. Few occupations provide the chances to make contributions to knowledge and the satisfactions that come with it, and the opportunities to mentor and continue to "pay it forward."

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