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INTERVIEW

An Interview with Dale Schunk

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Dale Schunk is a professor of Curriculum and Instruction and Dean of the School of Education at The University of North Carolina at Greensboro. His expertise lies in the areas of student motivation, academic self-efficacy, human learning and cognition, and self-regulated learning. He has published over 100 journal articles and book chapters and has authored, coauthored, or edited 15 books including *Learning theories: An educational perspective* (Schunk 2008), *Motivation and self-regulated learning: Theory, research, and applications* (edited with Barry Zimmerman; Schunk and Zimmerman 2008), *Motivation in education: Theory, research, and applications* (coauthored with Paul Pintrich and Judith Meece; Schunk *et al.* 2008), and *Self-regulated learning and academic achievement: Theoretical perspectives* (edited with Barry Zimmerman; Zimmerman and Schunk 2001). He has served on the editorial boards of major journals including the Journal of Educational Psychology, Educational Psychologist, Educational Psychology Review, and Contemporary Educational Psychology. In this interview, he discusses how he became interested in Educational Psychology and how he developed his professional interests. He also talks about some current issues in the field and motivational themes expected to attract attention in future, and he provides tips to graduate students and new Ph.D.s on how to succeed in the education profession.

Q1: How did your interest in Educational Psychology begin?

It began when I was an undergraduate Psychology major at the University of Illinois at Urbana. One summer I took a course in Educational Psychology and loved it. After graduating in 1968, I served as an education and training officer in the Air Force including four years at NATO Southern Headquarters in Naples, Italy. Boston University offered an on-site master's program in education there that was staffed by professors. I enrolled in that program because I had decided to return to graduate school to earn a doctorate and felt this would give me good preparation for my doctoral work. The professors who taught these courses exposed me to some of the great readings in education. When it came time to apply for doctoral work, I applied to Educational Psychology programs where I felt I could combine my interests in education and psychology.

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I was very fortunate to be admitted to the Psychological Studies in Education program at Stanford University in 1974. I was thrilled that my academic advisor was Nate Gage, an internationally-renowned scholar. The program at Stanford proved to be every bit of what I hoped it would be. I was exposed to exceptional professors and students who helped to broaden my thinking about the role of psychology in education.

Q2: Your work on self-efficacy is well known. How did that interest begin?

While I was at Stanford, Al Bandura in the Psychology Department was conducting his initial research studies on self-efficacy. I had read Bandura's work on observational learning when I was an undergraduate at the University of Illinois and was impressed by it. As part of my Psychology minor at Stanford, I took a course from him. I learned that he had expanded his theory beyond observational learning to include cognitive variables such as self-efficacy and outcome expectations. His theory fit very well with what I believed. He devoted considerable discussion in the course to self-efficacy, or people's beliefs about their capabilities to learn or perform actions at designated levels. Self-efficacy immediately appealed to me because it seemed relevant to student motivation and learning. I felt that students who were self-efficacious about learning would be motivated and would learn better.

At the end of the course, I discussed with him the idea of applying self-efficacy to education. He was very interested in this idea because his self-efficacy studies were conducted in clinical settings and he also thought that self-efficacy was pertinent to student learning. So he agreed to work with me. This led to his becoming my dissertation chair and to my working with him as a research assistant.

Q3: What do you think your contributions are to the field of Educational Psychology?

I have emphasized that self-efficacy, motivation, and self-regulation affect student learning and achievement. I am pleased to see the increasing amount of research on these topics as reflected in professional journals and papers at conferences. Compared with when I began my career, we know much more now about the operation of cognitive and motivational variables in learning settings. And this research base also has affected educational policy and practice. For example, current teaching standards reflect the idea that teachers must address student motivation.

Q4: Who influenced your way of thinking early in your academic career? Have you had mentors throughout your professional journey?

I have had several mentors who have helped me tremendously. My academic advisor at Stanford was Nate Gage. He was an authority on teacher education and he forced me to consider how the topics I was interested in applied to teaching and learning. My dissertation advisor was Al Bandura and I worked as a research assistant with him and with Herb Clark in psycholinguistics. From these Stanford professors I learned how to conduct research.

Since graduate school I have had close professional collaborations with Barry Zimmerman, Judith Meece, Paul Pintrich, and Frank Pajares. They have been mentors, colleagues, and friends. I have learned how important it is to have others to talk to, work with, and provide support.

Q5: What types of studies on self-efficacy do you think researchers should be conducting?

We need a lot more research on the assessment of self-efficacy. Bandura conceptualized self-efficacy as a domain-specific construct that should be linked to actual performances. For example, to assess children's self-efficacy for solving subtraction problems, a researcher might show children briefly sample subtraction problems and for each ask them to judge how confident they feel about correctly solving problems like those shown (e.g., similar format and difficulty). Then the researcher could give children actual problems to

solve that were similar in format and difficulty to those on the efficacy test. These assessments provide measures of self-efficacy, performance, and calibration (i.e., how well self-efficacy judgments correspond to actual performances).

Over the years, researchers have assessed self-efficacy in many different ways including by having students respond to one or two questions (e.g., "How confident are you about doing well in math?"). Many of these assessments represent a clear move away from Bandura's original conception. We should re-examine how we assess self-efficacy to ensure its distinctiveness from other expectancy variables (e.g., outcome expectations, perceptions of ability), as well as from other important but more-general variables such as self-concept and self-esteem.

We also need more research on the operation of self-efficacy in different cultures. Most self-efficacy research has been conducted in the United States. I am encouraged by the increasing amount of self-efficacy research being conducted in other parts of the world. This research will determine whether self-efficacy is just as important for learning, motivation, and self-regulation in places such as Singapore, New Zealand, Belgium, and Turkey, as it is in the United States.

Third, I recommend more longitudinal developmental research. Children often are unrealistic about what they can do. With development comes an increased cognitive capability to weigh and combine sources of self-efficacy information to arrive at self-efficacy judgments. Learners should become more accurate, but research does not always support this point. Research that tracks developmental changes in self-efficacy judgments and the conditions that affect these appraisals will be valuable.

Q6: How is self-regulated learning associated with self-efficacy?

Self-efficacy is closely linked with self-regulated learning. Researchers investigate self-efficacy for self-regulated learning, or people's self-efficacy for structuring their learning experiences and regulating their performances and learning outcomes. People might enter a learning situation with a sense of self-efficacy for self-regulation. As they work on the task they assess their progress. The belief that they are making progress substantiates their self-efficacy and keeps them motivated. Self-efficacious students who are dissatisfied with their progress are apt to change their strategy to one they believe will be more effective. Successful task completion further substantiates self-efficacy and leads to subsequent self-regulation. Self-efficacy and self-regulated learning are intertwined during all phases of learning.

Q7: What motivational themes do you think will become major issues in schools?

One theme is developmental changes in motivation. Developmental researchers have shown that transitions in schooling—such as elementary to middle school and middle to high school—can be disruptive and lead to declines in perceptions of competence (self-efficacy) and motivation. This is a serious situation because lower motivation can result in less student engagement and an increased risk of dropout. Student retention is a major issue throughout the world and motivation research has implications for retention policy.

A second theme is the role of social factors. There is a good literature on how family, community, peer and cultural variables affect students. That literature needs a better linkage to education. For example, research on parent involvement shows that it can affect children's motivation and learning. Research also shows that peer groups can influence students' motivation and achievement. Research on social factors is critically important for education.

Q8: Do you feel that motivation is a key variable influencing school dropout?

School dropout is a major educational and societal problem today. There undoubtedly are many factors that influence dropout including low academic interest and motivation, inadequate skills to succeed in school, and disengagement from the school environment. Motivational variables such as low self-efficacy for learning and low perceived value of

learning can diminish motivation and lead to further skill deficits. We need more research on dropout prevention including studies that investigate the role of motivational variables.

For example, motivational measures such as interests, values, and self-efficacy, might be collected from students beginning in middle school and changes tracked during high school to determine whether declines in motivation predicted subsequent school dropout. Such studies also would show whether programs to improve students' skills (e.g., effective study skills) lead to increased motivation.

Q9: Why do you think it is important to integrate the social, cultural and motivation literatures in the examination of learning and motivation?

It is critical to integrate these literatures because they don't exist in isolation. Children's social and cultural environments will affect their academic motivation and learning and vice versa. What happens outside of classrooms affects what happens inside the classrooms. Children are part of social and cultural communities. When these communities do not value education, it may be difficult for teachers to interest children in learning. Conversely, there are many success stories showing how strong role models outside of school help to motivate children to learn in school. We have tended to examine the social, cultural, and motivation literatures in isolation, but we definitely need a better integration because research supports their interdependence.

Q10: What do you think is the relation among cognition, motivation, and emotion in learning environments?

This issue has been around for a long time. It has received added attention lately as researchers have explored in greater depth the role of students' emotions in learning and motivation. I think that cognition, motivation, and emotion reciprocally influence one another. For example, let's assume that I believe I am knowledgeable of algebraic rules and operations, that I am confident about continuing to improve my skills, that I value algebra, and that I believe that doing well in algebra will led to more benefits. I would expect that when I solve a difficult algebra problem I'll feel a sense of pride and satisfaction. My passion for algebra should motivate me to seek further challenges and continue to build my skills. With more educational research on emotions—and especially research in learning settings—we will understand better how they relate to motivation and cognition and potentially raise or lower student learning and achievement.

Q11: You included a chapter on neuroscience in your latest revision of your learning theories test. What insights did the neuroscience literature provide you?

Writing this chapter forced me to examine that literature carefully. What I found was a remarkable consistency with non-neuroscience research on teaching and learning. For example, cognitive science has identified various information processing components such as the sensory registers, short-term or working memory, and long-term memory. Neuroscience research has validated those functions and shown in which areas of the brain these processes principally occur. Cognitive science discusses encoding, or the process of integrating new information in the processing system and storing it in memory. Neuroscience research shows that encoding involves forming and strengthening synaptic connections, and in so doing actually changes the physical structure of the brain.

Q12: How can neuroscience research be integrated better into Educational Psychology?

Educational psychologists may have avoided neuroscience research because they didn't understand it, especially the methodology. And the methods are complex. Most people know that X-rays examine solid structures (e.g., bones) and that electroencephalographs (EEGs) measure electrical patterns. But they are less certain about the functions of computerized axial tomography (CAT) scans, positron emission tomography (PET) scans, magnetic resonance imaging (MRI), and functional MRI (fMRI) methods.

This field is expanding rapidly and compared with only a few years ago today we know much more about the operation of neural processes not only in learning but also in motivation and emotion. Thus, with respect to rewards, neuroscience research suggests that the brain may be predisposed toward experiencing and sustaining pleasurable outcomes. The expectation of receiving a reward for learning may activate this pleasure network and in fact store this expectation as part of a neural network. A moderate amount of emotion can facilitate learning, which may occur because the hormones epinephrine and norepinephrine—which are secreted as part of an emotional response—can enhance memory for the attending event.

Another thing that the neuroscience literature shows is that the brain is complex. Simple generalizations from brain research may be misleading. There are examples of educational programs that purport to use brain research to offer suggestions for teaching, such as ways to teach to certain sides of the brain. Many of those suggestions are not supported by neuroscience research, which instead shows that the brain is dynamic and undergoes periods of rapid development and change.

Neuroscience research offers us tremendous insights into the processes that underlie teaching and learning. There are at least five solid implications that should be infused into Educational Psychology texts. (1) Early childhood education is critical to help develop children's brains for optimal functioning. (2) Cognitive processes are complex. We must specify which aspects of attention and memory we are concerned with (i.e., memory for what?) and tailor instruction accordingly. (3) Diagnose specific learning difficulties and address these. Addressing problems generally, such as with reading improvement programs, will be less effective. (4) Multiple factors in learners and environments affect learning. Teachers must consider these various influences in designing instruction. (5) Use active learning methods, such as problem-based learning, discussions, simulations, and role playing.

Q13: Do you think that current Educational Psychology textbooks provide enough classroom applications for given theories that help pre-service teachers feel more efficacious when they enter actual classroom environments?

The field of Educational Psychology is continually expanding. In the past few years, Educational Psychology textbooks have grown in size by including more information relevant to teaching. There is not a lot of available space in textbooks for applications. Most of these involve short vignettes designed to show how Educational Psychology principles apply to teaching. It probably is not feasible to expand texts significantly to include more applications because text length would become unwieldy. Reading applications in text—a vicarious source of self-efficacy information—is not the best way to build teacher self-efficacy. A better way is by having students serve internships in schools working under the guidance of professors and classroom teachers. Then students actually can apply educational psychology principles to learning contexts in schools. Actual performances by students offer a much better means of building self-efficacy.

Q14: Are there any approaches/theories in the field of motivation that you did not give much attention to at first but grabbed your interest later and changed your view of some problems in the field?

Three areas that merit increased emphasis today are the role of social and cultural factors in schooling, the relevance of neuroscience research to education, and the operation of contextual influences on motivation. Since I've already discussed the first two I'll focus on the third, which addresses how specific influences associated with instructional settings can affect student motivation. Although students have some general motivational dispositions—for example, some students generally are more interested in mathematics than others—

instructional and classroom factors can affect motivation. Researchers have shown that how teachers present instruction, how students are grouped, and what activities they engage in, can affect students' motivation for learning. I expect to see a growing emphasis on research on these three topics.

Q15: What advice would you give to graduate students and new Ph.D.s studying/working in the field of educational psychology?

I suggest you find a niche—a topic that's important, that you're interested in, and that you believe can develop into a systematic research program. Research requires hard work and persistence, and it's easy to become discouraged. This happened to me early in my career and I came close to quitting education. Fortunately some influential people in my life helped me get beyond this point. Having a good professional network can get you past the rough spots and provide you with much satisfaction with the work you do.

I also recommend developing time management skills. The transition from graduate student to professor is challenging. There always is too much to do and not enough time to do it. I suggest you work out a system that allows you to stay focused on the important activities connected with your professional responsibilities. Further, scheduling some time for scholarship (research, writing) every day is important. There may be days when you can't find this time, but by making it a priority you will find the time you need.

Q16: What advice would you give to researchers trying to publish their work in major journals?

Find a topic that you believe is important and that interests you. This will motivate you to conduct research on that topic. The topic must be important in its own right, because the most elaborate methodology or data analyses cannot make a topic important. If you believe in your topic then stick with it, even if you can't find much written on it. Persistence and effort are key motivational outcomes that lead to systematic programs of research, which contribute to our understanding of teaching and learning.

Form a good professional network. Go to conferences and attend sessions, business meetings and receptions, such as those of the AERA Motivation in Education SIG. Introduce yourself to others. These activities will help connect you to others with similar interests, which can lead to productive professional collaborations.

When you write for professional publication, write clearly so that your ideas are understandable. Don't use 20 words when 10 will do. State the purpose and focus of your article, why the topic is important, and how this project contributes to our understanding of the phenomenon you are investigating. You might ask others to read your papers and give you feedback on whether you presented your ideas clearly. Collectively all of these actions will build your self-efficacy for research and publishing.

Q17: Who do you think are the leading researchers giving direction to motivation research today?

There is a lot of significant research being conducted today and it is impossible to name everyone involved. Jacquelynne Eccles and her colleagues such as Allan Wigfield and Judith Meece have done exceptional research on achievement motivation and especially on values, developmental changes, and transitions in schooling. My late friend and colleague Paul Pintrich was a leader in the field of motivation, and his research on achievement goals, along with that of Andrew Elliot, Judith Harackiewicz, and their colleagues, has broken new ground. Ed Deci and Rich Ryan have done seminal research on intrinsic motivation. Barry Zimmerman is a leading theorist and researcher on the role of motivation during self-regulation. Frank Pajares is a prolific scholar on self-efficacy. Sandra Graham and Cynthia Hudley have done phenomenal work on the relation of race and ethnicity to motivation. I

am impressed with the research by Carol Dweck and her colleagues on mindsets. Kathy Wentzel's work on social and peer influences is important.

There also are researchers giving direction to the field who are earlier in their careers. Some people who come to mind (and there are others) are Allison Ryan, Helen Patrick, Lisa Linnenbrink, Julianne Turner, Avi Kaplan, Barbara Hofer, Johnmarshall Reeve, Eric Anderman, Lynley Anderman, Mimi Bong, Tim Urdan, Tamera Murdock, and Chris Wolters. For a good overview of many of the leading researchers in motivation I recommend the edited volume by Elliot and Dweck (2005).

Q18: What is your current research interest?

Barry Zimmerman and I recently released an edited volume, *Motivation and Self-Regulated Learning* (Taylor and Francis 2008). My current interest lies in exploring how motivation enters the self-regulation process as students are engaged in learning. There are different perspectives on this issue, as detailed by the chapters in this book. By understanding better how motivation relates to self-regulation we can offer teachers solid suggestions on ways to integrate these processes into their instructional activities and thereby improve student learning and achievement.

Q19: I would like to end this interview by asking you about your current assignment. You are a Dean of Education. Has your research influenced your work as an administrator?

Most of my job involves working with people. I try to practice what I preach by learning what motivates people and then helping them to nurture and develop these passions for the improvement of education. As I work with faculty and staff I apply motivation principles by building their self-efficacy, helping them set goals and monitor progress, teaching them self-regulatory skills, providing them with progress and attributional feedback, and rewarding them for competent performances. I apply these same ideas to myself so that I stay motivated in my work. I don't want to burn out as a scholar or dean!

I appreciate the opportunity to respond to these questions. Education is a helping profession. I hope that readers find this interview helpful for their professional lives.

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References

Elliot, A. J., & Dweck, C. S. (2005). *Handbook of competence and motivation*. New York: Guilford.

Schunk, D. H. (2008). *Learning theories: An educational perspective* (5th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.

Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education: Theory, research, and applications* (3rd ed.). Upper Saddle River, NJ: Merrill Prentice Hall.

Schunk, D. H., & Zimmerman, B. J. (2008). *Motivation and self-regulated learning: Theory, research, and applications*. New York, NY: Taylor & Francis.

Zimmerman, B. J., & Schunk, D. H. (2001). *Self-regulated learning and academic achievement: Theoretical perspectives* (2nd ed.). Mahwah, NJ: Erlbaum.