Educational psychology is generally considered to be the study of human learning processes. As a major discipline in social sciences, educational psychology has become very specialized along its history of development. Currently, the American Psychological Association (APA – http://www.apa.org) lists 53 active divisions corresponding to areas of specialization.

Educational Psychology is Division 15. Each division has subdivisions usually called “areas of interest.” Specialization brings diversity of options. The thematic motif of each educational psychologist is a marriage between personal interests and one of the subdivisions of the discipline. For example, some educational psychologists are interested in researching the quality of social environments conducive to optimal human learning. Others might be interested in examining the influence of biological maturation on the learning processes. Yet, it is common to find educational psychologists engaged in the study of specific concepts areas such as algebra, giftedness, language, resilience, notions of justice, etc.

In this issue of Thresholds in Education, we explore the work being generated by educational psychology faculty and faculty associates at Northern Illinois University. Our goal is to motivate teachers to work with us in collaborative processes or become educational psychologists themselves. This edition includes nine articles addressing a diversity of topics. The authors were asked to contribute to this issue by presenting their individual interests with “a message for teachers.”

Briefly, three articles discuss issues related to adolescence in the context of schools. The article by Schmidt discusses academic resilience among adolescents. She defines resilience as successful adaptation despite challenging or threatening circumstances. She believes that teachers can promote such resilience to prepare youth to deal with adversities in life. Rique’s article addresses the problem of students’ victimization in school from the perspective of moral development and education. He believes that teacher education should provide training on how teachers should use justice and forgiveness to resolve ethical and moral conflicts in schools.

Shumow’s article discusses work regarding parental involvement in their children’s schooling. She offers ways in which school can facilitate such involvement, including parent education programs.

Four articles address teaching practices for better learning performances. DeFrates-Densch presents the importance of meeting the needs of gifted adolescents in schools. She invites participation in her current line of inquiry—the relation between academic challenge and motivation among gifted middle school students. She believes that teachers can be educated to adjust instruction to increase the level of challenge and therefore motivation for gifted students.

Jean Pierce discusses “Learner-Centered Principles” in relation to teacher beliefs about practices linked with student perceptions of those practices and motivation. Teachers believe that “their preferred...
practice” leads to better learning. However, it is students’ perception of that practice that motivates learning. Then, teachers should implement practices that match with students’ perception of the effectiveness of teaching styles. Pierce proposes that problem-based learning encourages students to engage in learning processes that match their preference—thus an ideal practice of teaching.

An article by Stellwagen is specific about mental abilities. He discusses the use of student learning profiles to enhance metacognition among high school students. Metacognition is generally defined as the ability to think abstractly across different content areas. Stellwagen presents us with a case study of his experience and application of the model. Roberts’ article presents us with alternatives. He discusses “the multi-state mind,” a model that according to him will offer future possibilities of education.

Finally, one article addresses parenting styles and education. Smith introduces a website established for parents regarding effective parenting of adolescents. The website offers review of parenting self-help books and invites participation. An article by Shimizu offers a culture perspective to education. He provides us with implications of learning philosophies in Japanese and American schools.

It is our hope that you will find the work of these individuals interesting and informative. Should you desire information regarding the Educational Psychology programs at Northern Illinois University, please contact Jean Pierce at (815) 753-8470.

Júlio Rique is Assistant Professor of Educational Psychology. He is a research associate of the Office of Studies on Moral Development and Education, University of Illinois-Chicago. Dr. Rique’s research involves adolescents’ moral reasoning of justice and forgiveness. Currently, Dr. Rique coordinates an International Project on the Enright Forgiveness Inventory. Dr. Rique works in collaboration with researchers in Brazil and has presented papers in national and international conferences. He has also reviewed and written articles in international journals of psychology.

Nancy DeFrate-Densch is an Instructor of Educational Psychology at Northern Illinois University, where she has been teaching for the past 12 years. She has presented numerous papers at state and national conferences and has published several journal articles. She is a contributing author for McGraw-Hill and has served as a content advisor for them as well. Her past work includes substance abuse counseling for adolescents and their families. In addition, she served her local school district for many years as a board of education member and member of the gifted education committee.
Promoting Educational Resilience Among At-Risk Youth

Jennifer A. Schmidt
Northern Illinois University

Throughout most of the 1990s, I was involved in a research project that gave me the opportunity to visit middle and high schools across the United States. As part of this study, I interviewed students, teachers, counselors, administrators, and parents about students' experiences and plans for the future and administered a variety of questionnaires about these same topics. During my conversations with the participants in this study, I was repeatedly struck by how many students were functioning in spite of having endured some fairly serious hardships in their lives. The students in this study had experienced a variety of adversities such as poverty and dangerous community surroundings, extreme disorganization and discord in the family, serious personal illness, and/or the recent loss of a parent. Even in the most normative of circumstances, adolescence is a period when individuals are especially likely to engage in risky behaviors like reckless driving, substance abuse, and delinquency (Csikszentmihalyi & Larson, 1984; Office of Juvenile Justice and Delinquency Prevention, 1995; U.S. Department of Commerce, 1986). While one might expect adolescents surrounded by the turmoil of puberty to crumble when faced with adversities like those experienced by the students I studied, this is by no means the case. Many adolescents, when faced with extreme adversities, manage to sidestep many of the potential pitfalls of adolescence and forge a healthy, productive, happy existence.

"Resilience" is a phenomenon that has deservedly received much attention in recent studies of school-age children. Resilience generally refers to "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances" (Masten, Best, & Garmezy, 1990). It is essentially the capacity to "bounce back from" or work through adverse circumstances without falling into maladaptive behavior, delinquency, depression, or psychopathology. Students who have experienced adversity are said to be "at risk" for a wide variety of maladaptive behaviors, and it is important for teachers and parents to understand what they can do to foster resilience among at-risk youth.

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Using the data collected from students and school personnel, I have examined some of the factors that contribute to adolescents' educational resilience by identifying certain factors that seem to better equip students to deal with adversity when it arises. In general, students who possess these factors tend to experience greater academic success, feel a greater sense of control over their lives, and are more successful at avoiding school misconduct and other forms of delinquent behavior. This research has important implications for teachers, parents, and other adults concerned with the healthy development of youth.

Following, I discuss a few things teachers, parents, and concerned adults can do to help students remain resilient when faced with larger life adversities.

Provide Opportunities for Engagement in Structured Activities

Schools and communities would be advised to provide opportunities for adolescent engagement in structured activities such as hobbies, sports, art, and academic interests. My research shows that regardless of social class, adolescents who had a greater variety of such activities available to them in their communities were more educationally resilient. The emphasis here must be on activities—simply establishing community

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centers or “safe havens” for students is not an adequate solution unless these centers offer structured activities for teens to interact with their peers. My research suggests that at-risk adolescents who spend large amounts of unstructured time with peers tend to evidence more delinquent behaviors than teenagers who have more structure in their activities or those who spend less time with peers in general. Similarly, Mahoney (1988) studied a variety of community centers intended to provide safe and relaxed environments for at-risk adolescents to interact with their peers and found that if the community center did not have structured activity as a focus, students who used the center actually became more delinquent over time. Simply offering a place for adolescents to “hang out” and get off the streets is not enough to prevent delinquent behavior. Such institutions must provide teenagers with structured opportunities for engagement. My research suggests that the most desirable types of activities might include projects that provide some needed service to others or to the community.

Provide Adequate Challenges for Students and Encourage Them to Create Challenges for Themselves

Teachers and other concerned adults would do well to encourage children and adolescents to become involved in challenging activities, both within the context of structured programs and within the context of academic and leisure-time activities. Challenge refers to the opportunity to get involved or to act in a way that allows individuals to stretch their abilities just a little further. Experiencing moderate challenge (not too high, not too low) on a daily basis seems to serve a protective function for adolescents facing adversity. Among at-risk students, those who are more often challenged in the classroom and in their leisure pursuits tend to cope much better with adversity. They do better in school, get in less trouble, and feel more in control of their lives. Of course, experiencing challenge is important in the development of all students, but my research suggests that the benefits of challenge are far greater for high-risk students than for low-risk students. The experience of challenge seems particularly important for positive development among high-adversity teenagers.

Scholars in the stress and coping field have developed a “challenge model of resilience”—a theoretical model suggesting that daily challenge may play a particular role in the process of coping with adversity (Garmezy, Masten & Tellegen, 1984; Rutter, 1987). This model states that engagement with daily challenge may be particularly effective at building competence and confidence for overcoming larger adversities. According to the model, stressors are treated as potential enhancers of competence: Too little stress in one’s life is not challenging enough to strengthen competence, while excessive stress is potentially overwhelming. According to this view, one way to avoid becoming overwhelmed by excessive stress is to continually build one’s competence by confronting and overcoming more moderate challenges on a regular basis.

Teachers can provide such challenges for students in the classroom by holding high expectations for their students and adjusting instructional materials and assessment in response to students’ abilities and progress. It is perhaps even more important for teachers and parents to help children learn how to create challenges in their leisure activities and in other contexts where little challenge may exist. It is those children who can create their own challenges in their free time through engagement with hobbies, sports, and other interests who tend to be most resilient. Emphasizing the positive role that challenges can play, modeling enthusiasm for engaging in challenge, and identifying and encouraging the pursuit of children’s interests within and outside the classroom are just a few things teachers and parents can do to encourage students’ engagement in challenge.

Foster Perceptions of Success

My research suggests that in order to promote resilience, it is especially important for at-risk adolescents to feel the confidence that comes from successfully overcoming challenges outside of the classroom.
It is particularly important for at-risk students to feel that they are successfully overcoming the moderate daily challenges in their lives. While repeated engagement with daily challenges will build up competence, it is the perception of success in dealing with these challenges that builds up students' confidence in their abilities to deal with increasing levels of challenge.

Too little stress in one's life is not challenging enough to strengthen competence, while excessive stress is potentially overwhelming.

Beyond simply encouraging involvement, it is important for teachers and other adults to offer positive feedback about adolescents' performance when dealing with daily challenges and to provide opportunities for success in many domains. While experiencing academic success in the form of good grades is important for fostering confidence that ultimately leads to resilience, it is as important, if not more important, for students to experience success in other challenges in their lives, such as those presented by extracurricular activities or hobbies.

Conclusion

Daily challenges seem to play an important role in helping youth avoid the potentially harmful effects of poverty, family disorganization and discord, or parental death. Children faced with such adversities are particularly vulnerable to a variety of maladaptive behaviors. Since it is not possible to remove the reality of adversity from children's lives, it is important for parents and educators to help provide children with the skills and supports to successfully deal with such hardships if and when they occur. The recommendations discussed in this article are just a few of many suggestions supported by research. My research suggests that when children and adolescents regularly engage in and overcome moderate challenges both in and out of the classroom, they build up the competence and confidence to face greater and greater challenges, and are thus more equipped to successfully deal with the often seemingly insurmountable challenges created by larger life adversities.

Note: The theoretical background and research that form the basis of this article are discussed in greater detail in Csikszentmihalyi & Schmidt (1988) and Schmidt (in press).

References


Jennifer Schmidt is Assistant Professor of Educational Psychology, Northern Illinois University. She is a research affiliate of the University of Chicago's Sloan Center on Parents, Children, and Work. She has presented papers at national and international conferences on Education and Child Development. She has also reviewed and written articles published in journals of education and psychology.
Interpersonal Forgiveness and Students’ Victimization in Middle Schools

Júlio Rique
Northern Illinois University

Awareness of the increasing number of student victimization incidents in our nation’s middle and secondary schools has led to many cries for a renewed emphasis on moral and character education. Presidents Clinton and G. W. Bush have both given character education a prominent place in major education policy addresses, and both have sponsored White House conferences on character education. A growing curriculum literature offers conflict resolution programs and mediation strategies focused particularly on child-on-child victimization. These programs are based on assumptions that teachers should foster improved problem-solving and communication skills and respect for ethical-humanitarian principles of conduct. If these approaches fail, however, the only action left to educational authorities is constraint or punishment for the identified offender. Although these typical recommendations may seem sensible, I believe that they are incomplete. Public schools are wary of any recommendation that may undermine clear standards of justice or fair treatment of all students; thus, they ignore one creative response to a conflict event—forgiveness.

As an educational psychologist whose primary research interest is in identifying the conditions under which adolescents achieve positive development, I believe that the value of forgiveness, unlike justice, has lost its status as a principle of social relations outside the church or family. Forgiveness after an outbreak of conflict and even violence in schools should support victims and avoid blame and isolation for the offenders.

My research in cross-cultural studies in collaboration with colleagues from Brazil and several other countries has convinced me that, in facing the victimization problem in our schools, forgiveness provides educators with an approach that can better achieve restorative social relations.

What is the Problem? Students’ Victimization and Teachers’ Conflict of Values

The National Center for Education Statistics (2001) reported that students between ages 12 and 18 are frequently victims of non-fatal victimization. These offenses include verbal aggression, neglect, social isolation, thievery, and physical fights. This broad definition of victimization complicates the responsibilities of schools. This is because the victimization in behaviors as previously described is intrinsic to conflict that naturally occurs during adolescence. The educational/developmental psychologist, Jean Piaget, well defined this standpoint:

Social/interpersonal conflicts can promote intellectual and moral development in the child/adolescent. Social/interpersonal conflicts are necessary for the development of logic and the ability for taking the perspective of others as having feelings, ideas, and desires. (Piaget, 1928/1976, 1932/1997, in DeVries & Zan, 1994, p. 80, emphasis added)

Considering that conflicts cannot be eradicated from within the range of normal relationships in school experiences, schools should foster developmental growth equally for victims and offenders. Usually, schools address conflict by bracketing the situation from the interpersonal context in which the conflict initiated by focusing on protecting victims only. This often means limiting a developmental approach for both parties involved. That all parties should be involved in

Forgiveness provides educators with an approach that can better achieve restorative social relations.
resolving the conflict should be understood within developmental (the person) and contextual settings including the family, school, and community.

Teachers are often in the midst of conflicts involving students, parents, and schools. Teachers are constantly exposed to a student’s interpersonal conflicts in the classroom or in the school building. Teachers also report that they are not properly prepared to respond to conflicting situations (Tirri, 1999). Interestingly, interpersonal conflicts between students create an intra-individual conflict of values in teachers. Not knowing how to deal with the situation, teachers face

Across cultures, it appears that when a person forgives, anger expression, anxiety, and depression are significantly reduced.

competing claims of values such as justice, care, forgiveness, etc., to resolve conflicts at schools (Oser, 1991). Therefore, I believe that decision-making processes involving democratic dialogues can balance forgiveness and justice. When everyone is granted the chance to participate and justify their attitudes, adopted strategies for resolution will be acceptable across contexts (i.e., peers, school, family, community). This would shift the attention to the differences in developmental outcomes for adolescents (DeVries & Zan, 1994; Laursen & Collins, 1994).

In my research, I am challenged to provide an account for how principles of interpersonal forgiveness and justice are congruent. How could interpersonal forgiveness relate to a form of justice that would not simply excuse a young person from accepting responsibility for his/her actions but would avoid employing punishment that closes the opportunity for conflict resolution? Education can provide support and recognition for moral actions (i.e., being just) and values (i.e., forgiveness). My previous research findings have begun to verify the value of forgiveness. Currently, I am working on a conceptual link between forgiveness and justice.

Research on Interpersonal Forgiveness

At the University of Wisconsin-Madison, a group coordinated by Robert D. Enright, Ph.D., educational psychologist, pioneered studies on interpersonal forgiveness. The group departed from a literature review that showed almost no publications about the theme in psychology. The first decision from the group was to develop a working definition for interpersonal forgiveness based on the philosophy of Joanna North (1987). The research team defined forgiveness as:

A willingness to abandon one’s right to resentment, negative judgment, and indifferent behavior toward one who unjustly injured us while fostering the undeserved qualities of compassion, generosity, and even love toward him or her. (Enright, Freedman & Rique, 1998, pp. 46-47)

Measure

Enright and the Human Development Group then went on to create a measure for the definition of interpersonal forgiveness. The Enright Forgiveness Inventory (EFI) was created as an objective Attitude Scale that assesses the degree to which a person forgives another person who unjustly hurt him or her. The EFI provides information about the degree of hurt, the agent of hurt, and the degree to which a person has forgiven the offender in the areas of affect, behavior, and cognition. I refer the reader to Enright, Rique & Coyle (2000), Enright & Fitzgibbons (2002), and Subkoviak, Enright, Wu, Gassin, Freedman, Olson & Sarinopoulos (1995) for a review of the development and the statistical properties of the EFI. I am currently a coordinator of the International Project of Studies on Interpersonal Forgiveness using the Enright Forgiveness Inventory (EFI). The EFI is now available in seven languages with norms and analyses from Austria, Brazil, Israel, Korea, Norway, Taiwan, and the United States.

Studies using the EFI are accumulating in three primary areas.

1. Forgiveness Counseling and Education: Social Emotions and Health. Across cultures, it appears that when a person forgives, anger expression, anxiety, and depression are significantly reduced (Rique, 1999; Sarinopoulos, 1996), and blood pressure (Huang, 1990) and cardiac stress are reduced (Waltman, 2002) as compared to another person who

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forgives to a lesser extent. Short-term educational interventions in which the process model of forgiving was applied have shown that forgiveness promotes well-being for adolescents hurt by "emotionally-distant" parents (Al Mabuk, Enright, & Cardis, 1995).

2. The Influence of Contexts of Hurt on the Degree of Forgiveness. Rique and Enright (1998) analyzed offenses reported by college students and adults across four cultures: Austria, Brazil, Taiwan, and the United States. Findings showed that offenses were perpetrated in developmentally appropriate contexts including the family, friendships, and romantic partners. In those contexts, participants’ perceptions of "hurt" varied significantly across similar categories of offenses. Offenses were usually related to everyday issues such as romantic conflicts, lack of trust between friends, borrowing money, etc. These offenses usually involved behaviors such as verbal aggression or emotional neglect. It was concluded that the perception of hurt varies. People perceive hurt from others who are close to them such as family members, friends, and colleagues more than people perceive hurt from strangers. On the other hand, the degree to which participants forgive offenders indicated that victims were more likely to forgive people who were close to them than they were likely to forgive strangers.

3. Forgiveness and Religion. Cross-cultural studies on forgiveness indicated that religion, measured as practice of faith, has a moderate correlation with forgiveness (Rique, 1999; Subkoviak, et al., 1995). Stronger relationships were found in cases where a religious person was more likely to forgive strangers than would a non-religious person. Jennifer Hood’s manuscript investigated forgiveness in a sample of middle school students in relation to religious affiliation in early adolescence. Initial findings showed that religious education and practice of religiosity across three different affiliations (Protestant, Catholic, and Jewish) had no effect on the degree to which adolescents forgave others after conflicts with friends, family, or teachers developing a model of co-existence implying that independent constructs stem from the same moral root. That argument should consequently be useful for discussion and research on personal moral development and public actions in terms of mercy and justice.

What would that argument be like? According to Piaget's (1932/1997) model of moral development, forgiveness emerges from "the morality of autonomy and cooperation." A person comes to understand that the eye-for-an-eye rule leads to a cycle of revenge. Reciprocity, a more advanced moral perspective of forgiveness, becomes associated with equity, an advanced concept of justice. Piaget thinks that this association is made because of two related cognitive capabilities of the human mind. First is the capacity to think of a person is capable of relating that two concepts into one form of reasoning that simultaneously motivates "meritorious judgments of justice" and the "supercroratory action of forgiving," educators have the responsibility to reintegrate a more balanced...
approach to victimization events by recognizing and nurturing forgiveness in all parties in conflicts.

The Rique and Lins-Dyer study (in press) showed that the schools protect student victims and value when the student (victim) forgives offenders. However, an offender often receives no protection despite his acceptance of responsibility and request for forgiveness. Many are understandably left with anger. Then, what is the moral benefit of forgiveness for offenders? Piaget would say that although an adolescent could function in high levels of moral and ethical behaviors, one-sided justice models burden both adolescent victims and offenders in schools with an unfair weight on deliberation. If punishment exceeds the violation, a young person’s understanding of right and wrong will be impeded by the emergence of a sense of injustice. Or, if forgiveness exceeds the rights of justice, a young person’s understanding of right and wrong will be impeded by egocentrism.

Endnote

If readers are interested in the EFI, they should contact the International Forgiveness Institute at http://www.forgiveness-institute.org. P. O. Box 6153, Madison, WI 53716-0153, or email jm@niu.edu for information.

Finally, readers might refer to http://www.education.niu.edu/riques for further inquiries on specific research issues.

References


For author bio, please see page 2.
Heterogeneous grouping of students has been recommended by many (e.g., Carnegie Council of Adolescent Development, 1989; Johnson & Johnson, 1991), however, some debate exists regarding the efficacy of such arrangements for students who are gifted (e.g., Feldhusen, 1989; Tomlinson, 1999). While heterogeneous grouping benefits some students, it may have an adverse effect on those students who have already mastered the material being taught or can do so at a much faster pace than others in the group, possibly resulting in these students being under-challenged. This lack of challenge can negatively impact student achievement, motivation, and classroom behavior.

Research Inquiry and Relevance
Many gifted students become bored with classes and assignments that do not adequately challenge them. Some become frustrated with the entire system (e.g., Friedel, 1993; Winner, 1997). According to Plucker and McIntire (1996), gifted middle school students who do not feel challenged in their classrooms engage in a variety of survival strategies. They pay attention in class only on a selective basis, saving their attention for those things they do not already know or that particularly interest them. So, what do these students do instead of paying attention in class? They often involve themselves with others around them, which can be disruptive to learning. Sometimes they work on material from other classes or read pleasure material instead of doing their coursework. Others may try to entertain their peers with witty remarks made at their teachers’ expense. Some gifted students focus all of their school energy on extra-curricular activities. Many stop trying in school, effectively tuning out of the educational process, leading to tremendous underachievement, by doing just enough to “get by” (Feldhusen, 1989; Gallagher, 1991, Reis, 1989).

Some gifted students in heterogeneous classrooms try to disguise their talents out of fear of social rejection. This is particularly a problem for girls at the secondary level (Covington, 1992; DeLisle, 1984). These students are less likely to respond to classroom questions or may purposely give incorrect answers to questions to appear more like their peers and thereby gain acceptance. Still others become perfectionists. Having never experienced academic struggle, they do not learn how to cope with less than perfect scores on tests or assignments. In essence, they view anything other than perfection as failure (LoCicero & Ashby, 2000). At the very least, these students have a need to out-perform their classmates. This sets up a situation in which they are likely to develop an ego-focused or performance goal orientation in which the students are focused on receiving favorable judgments of others (Ames & Archer, 1988). This ego-focused goal orientation is associated with the avoidance of challenging tasks (Dai, 2000) as well as the use of inefficient and ineffective learning strategies such as rote memorization (Pintrich & DeGroot, 1990). This, in turn, could obviously lead to even greater under-achievement.

Gifted middle school students who do not feel challenged in their classrooms engage in a variety of survival strategies.

Messages for Educators
How can teachers prevent such dire consequences associated with heterogeneous classroom grouping? First, they need to recognize under-challenged students in their classrooms. Plucker and McIntire (1996) found that teachers did not recognize the survival tactics of gifted students as coping mechanisms for dealing with boredom. Careful observations of students may suggest that some are in need of additional academic challenge.
Comparison of standardized test scores and classroom performance may also yield additional information regarding the benefits of greater challenge. Second, teachers must adjust their instruction to adequately challenge students who have already mastered grade level material or whose learning pace is much faster than the norm. To this end, several instructional possibilities exist. Teachers can differentiate instruction so that lessons are taught at various levels within a class (Tomlinson, 1999). Teachers can compact the curriculum (Winebrenner, 2000) so that students who do not need repetition can move on once they have mastered a topic. Individual learning contracts are another possibility (Winebrenner, 2000). Implementation of the parallel curriculum model (Tomlinson, et al., 2001) is another means of ensuring adequate challenge for students.

Given that students in need of greater academic challenge are identified and that their need for that challenge has been met, one might expect them to achieve at expected levels, maintain a task-focused or mastery goal orientation rather than adopting an ego-focused goal orientation, and behave appropriately in class.

My current line of inquiry investigates the relations between perception of academic press or challenge, goal-orientation, and disruptive classroom behavior among gifted, middle school students.

My current line of inquiry investigates the relations between perception of academic press or challenge, goal-orientation, and disruptive classroom behavior among gifted, middle school students. Teachers who are interested in their students participating in the study can contact me at (815) 753-4608 or e-mail me at ndefrates@mu.edu. Teachers interested in learning more about differentiating instruction are encouraged to read the work of Carol Ann Tomlinson and her colleagues. Samples of differentiated lesson plans are available for teachers at http://www.hottlinx.org.

References

For author bio, please see page 2.
Using Student Learning Profiles to Develop Cognitive Self-Assessment Skills

Joel B. Stellwagen
Northern Illinois University

shift from behaviorism to cognitive psychology in the late 1950s has initiated a new focus on how individuals learn, think, and acquire and apply knowledge. Cognitivists claim that students need to develop skills that allow them to appraise his or her own thinking, including the ability to plan, activate, monitor, and evaluate actions (Walberg, 1994). These goals for student learning are also reflected in the metacognitive activities.

This article provides evidence that strategies can be designed to engage students in skills of metacognition. I have outlined a problem-based learning scenario that can be efficiently and effectively used by classroom teachers. Students have been given the problem of trying to analyze their own test-taking skills and to prescribe specific learning strategies that will allow them to improve their classroom performances. Specific computer software, learning style inventories, and knowledge of study skills are recommended.

The next phase of this research will be to see if other teachers can use the same method and have consistent, quantitative gains in student performance.

Research Inquiry

I use John McConnell's (1992) AMSOFT computer software to generate subtest scores to lead individual students to self-assess and diagnose their own performance. After every multiple-choice test, each student is given a printout that identifies his/her performance on each subtest category through the use of a z-score. A z-score provides the student with a standard score for comparisons with other students. For example, a z-score of zero places the student as the middle student. A positive z-score places a student in the upper half; a negative z-score places student in the bottom half of test scores. Students keep a record of their z-score performance on a Learning Profile Sheet. Halfway through the semester, each student inputs their z-scores on an Excel spreadsheet, which allows them to generate a graph of their performance scores so that they...
can observe a visual representation of their efforts. Using the graph, the students are asked to describe their test-taking efforts and prescribe learning plans to aide them in improving their classroom performances. With the remaining tests of the semester, the students can examine the success of their newly-formed learning strategies.

I have divided the subtests of my multiple-choice exams into the following five self-assessment categories:

**Instructional Style:** Was the test question based on information that was presented orally or from information that came from the assigned reading?

**Question Format:** Is there a difference between the student test scores of multiple-choice items and true-and-false items?

**Thinking Style:** Do students perform better on recall questions or on higher-order, abstract-thinking items?

**Attention Duration:** Are students doing better on the earlier or later items of each test section?

**Content Areas:** Are students doing better on content that is presented to them at the beginning of each unit or at the end of each unit?

To further the student's interest and knowledge of their learning capabilities, I also discuss various study skills and have the students keep a record of the method and extent of their study for each test. Additionally, I have the students do activities such as completing a learning style inventory (Silver, 1995) and assessing their brain hemispheric dominance (Taylor, 1992). An example of a complete Student Learning Profile is included in the Appendix.

**The Collection of Student Observations**

In an effort to assess the merits and potential of the proposed teaching strategy, students were asked to describe what they had learned from their experiences when using a student learning profile. Their responses were divided into the following metacognitive domains: self-awareness, proposing study strategies, designing test-taking strategies, monitoring and evaluation, and affective reactions.

**Student Comments**

**Self-Awareness**
- From the z-score analysis, I learned many things about myself. I found that I do equally well on oral and written and presented material. However, I found out that I am always better on abstract ideas. Maybe I just need to concentrate more on memorizing facts.
- From looking at my learning profile trends, I find that I am very inconsistent in performing. I have done well on a number of things, and then on the next test I don't do well. This is really how I study. Sometimes, I do and then I don't.
- My oral scores are pretty low. The main reason for that is because I have had health problems and missed classes. I could get notes from people who were in class. It is real hard for me to concentrate, so I guess that is why I have trouble with attention duration.
- I am going down in all areas of a test. I just need to start studying. I mean real studying.
- I have three main problems in my test-taking skills. One is memorizing, another is cramming, and the last is finding the right information.
- I am not a very good test-taker even though I try. I get very bored with what I am studying easily. I can't study long if it is extremely quiet.
- I don't do well on a section of the test that focuses on the class because I do not pay attention. I do better on the beginning of each test and slack off at the end—especially when I don't think I am doing well.
- I believe I am a terrible test-taker because of my lack of preparation. I could take notes and pay attention. This analysis shows that when I do study, I get results.
- My tests started off pretty good. Then they all went downhill. As it comes closer to the end of the year, my thinking skills are getting worse. I just want school to end.
- I have never been a good test-taker. I am afraid of tests; I am better at sports. I really need the teacher to take more time so the stuff sinks in. These graphs tell me a lot about myself that I didn't know before this class. I learn best if it is taught to me instead of my reading it.
- My grades are directly correlated with how much time I study. If I fail a test, it is just because of dumb mistakes. I am a slow test-taker, but when I rush I make dumb mistakes.
- My teacher and me both have the same learning style. We are intuitive thinkers. This makes the class interesting.
- My test taking-skills really vary. It all depends
upon how much I study. One thing I learned was that I am a social learner and that I do well if I talk over the test with friends.

- I haven’t done well on attention duration, and I need to stay focused on the whole test.

Proposing New Study Strategies

- I am going to try to develop questions just like the teacher would ask so that I can practice trying to think abstractly. Taking tests is a skill. Depending on the person, each have different skills that can be improved. For myself, I need to question better, space my practice, and take more notes on what I read.
- I have noticed that I do not do well on items that come from the book. After examining this problem, I will begin to highlight and take notes about what I read.
- I get bored when I am studying very fast. I especially can’t study long if it is extremely quiet. I need some music or some variety to keep me going. I do far better when I make questions in my own words so that I can answer them thoughtfully. Like: What do I want to learn from this chapter? Why are they this way? I learn differently than others in that I need more detail, explanations, and the possibility of talking to someone who understands the material.
- I am a visual learner; I need to do something with the information (highlight to actually understand it). After I have highlighted everything, then I am able to memorize the material. I especially need teacher demonstrations. I really liked it when he showed us interesting pictures like when we had to guess who the homecoming queen was.
- I need to re-read the book before tests. I always read it right away and then never check it before the tests.
- Besides studying for a longer period of time, I need to take notes on important points and main ideas. I need to question myself as to what kind of questions to expect on a test.
- I need to study in a quiet room where there are no distractions.
- I would do better if I would get more sleep. I cram all night for a test and then I am tired. I should start to study 2 or 3 days ahead of a test so I am not cramming. I also need to read the chapters more than once and pick out the important ideas.
- I need to follow an organized plan of studying such as spacing my studying. Maybe flash cards would help my factual recall.
- I am a social learner, and I need to work with others to do well on tests.
- I need to spend more time reviewing. My mother says that I study best when I like the subject. I am always turning on the TV and I need to get in a quiet environment. With me, it is more of a motivation problem. I need to concentrate more and stop talking in class. Just spending more time on my school work would help.
- I need to put more emphasis on reading and reviewing material covered. If I take notes in class or ask the teachers more questions, I am sure that I could improve the section of the test that comes from oral background.
- I especially need to work on learning the new material instead of just going over the material that I know. Plus, I do not manage my time very well.
- I need to space my practice time and read the chapters before we talk about them. I could participate more in class. I especially need to get my confidence up before the tests. I have a defeated attitude before I start.
- I have a great capacity to learn, but I am only spending 10 minutes studying before each test.
- I need to ask myself questions when I read and then see if I can recite the material to myself before I take the test.
- I need to control my nerves at the beginning of the test. I could do this by encouraging myself and studying more. I heard somewhere that a healthy breakfast and rest will help.
- I simply need to get organized and study before I find out that I am failing.
- I need to turn off the TV when I study. Because I have an attention deficit disorder, I should not be allowed to have TV or a telephone.

Designing Test-Taking Strategies

- I believe that I can improve my late concentration on tests by trying to answer all the easy questions first and then come back to the hard ones. This way I won’t miss an easy question just because it is towards the end of the test.
- I think that I am better on tests when I skip all the hard items and do all the easy ones first. Thus I don’t seem to get so frustrated.
- How about this. because I do better on the beginning of the test, I could take the test backwards or
maybe I should split the chapters up into smaller sections.

- I need to read all the questions on multiple-choice questions and then cross out the ones I know to be wrong. I should go over the test after I finish.
- I am answering the multiple-choice questions like they are true and false. I need to carefully eliminate more of the answers instead of picking the one I like right away.
- I am taking the test too fast and need to stop worrying about finishing.
- When I actually take the test, I need to read through the questions and all answers before deciding on the first answer I like. I just don’t try very hard.

Evaluating and Monitoring New Methods

- I noticed that I do not do well on items that come from the book. After examining this problem, I began to highlight and take notes about what I read. It worked. My multiple-choice responses were not good. I now sort of understand what the problem was. I wasn’t being logical in eliminating all the answers but was answering the questions immediately. This strategy is helping me in my other classes.
- After the first test, I noticed that I was not doing well on items that came from our book. Since that time, I have concentrated on reading more and have a better understanding of the material.
- One thing I noticed was that if I talk over the test with friends and then review my notes right before I take a test, I do very well. I was not doing this.
- My test questions that come directly from the book have improved dramatically since the first test because I have learned how important they are and saw I need to work there. To help myself do better on abstract ideas, I could look for the abstract ideas in the book and then try to do the thinking questions at the end of each chapter.
- My abstract thinking has been improving steadily. I am helping myself by not just studying the definitions but also by getting the basic idea behind the definition.
- This test analysis shows that when I do study, I get results. When I studied for an hour, I did better.
- My scores on the last test are better. I found that when I study more, my book portion goes up but not the other test areas.
- I am showing improvement on the tests by being aware that I need to work hard right up to the end of the test.
- I am doing better in all the sections. Studying longer, repetition, and spaced practice are my methods. Plus, I do well in this class because I like it.
- From doing this, it seems as if I found out that I did bad in the book section so I studied hard to bring this grade back up.
- These graphs tell me a lot about myself that I didn’t know before this class. After my first test, I decided to take my time and read each question through even if I am getting tired and can’t concentrate. It is working!
- This study shows that when I do study, I get results.

Affective Reactions

- In conclusion, I enjoyed being able to chart my test-taking skills because I really learned a lot. I can now tell myself that I can get good grades since I know what to do to improve my scores.
- These test performance characteristics provided me with a lot of good information.
- The learning profile has allowed me to make an assessment of what I need to do if I want to improve my test-taking skills.
- I have learned a lot about my test-taking skills in this class. The only reason that I am not a good test-taker is that I do not study.
- This strategy is helping me in my other classes.
- Because I am using some of these strategies, I am not getting so frustrated.
- I have learned how important this is and have been able to correct my mistakes.
- It is important for me to have good test-taking skills, and I am learning many things about myself by this method.
- With these examinations, I am able to learn more about my study habits and test-taking skills. Not only is it easier for me to improve in psychology class, but other classes as well.
- I enjoyed being able to chart my test scores because I really learned a lot. I can now tell myself that I can get good grades since I know what to do to improve my scores. I basically have my grade in my hands. I learned very much from this experiment, and I am glad that we’re able to do it.

A Consideration of Parent Reactions

The student learning profiles have proven to be a
very popular tool for teachers to use during parent conferences that were conducted while I was teaching a psychology class at Hinsdale South High School, Darien, Illinois. Parents are interested in finding out the specifics of their children’s strengths and weaknesses. It is claimed that parents of intelligent children have found analysis of assessment in this form as being particularly rewarding. Instead of common sense comments reflecting the student performance, teachers now have information which they can use to make professional and substantive identifications of learning strengths and weaknesses. It is believed that because each student is involved in their own assessment, these types of activities have a greater probability to be understood, used, and accepted by parents than if the teacher were solely responsible for the recommendations. In conclusion, I am including some of the comments that I received during a parent conference day:

- Can we have copies of this printout so that we can discuss it with our daughter?
- If our child is having problems on questions dealing with the reading section, it is simply because she just does not bring her book home. You can see this in her test results.
- Thanks for taking the time to do this. All teachers could benefit from this analysis.
- Wouldn’t it good if the guidance department had a learning profile on every student?
- You are right, she has always had a problem with being able to apply abstract ideas.
- This is all very interesting. Thanks so much for taking the time

- This is really neat. How do you suggest we use this to help her at home?

References

Joel Stellwagen, Ph.D. from University of Illinois, worked in the micro-teaching lab here and is the recipient of the U of I 1997 Distinguished Alumni Award. He has taught at the Illinois Math and Science Academy for 33 years, and at National Louis University and Northern Illinois University. His interests are in values education, psycho-linguistics, and applying technology to metacognitive skills.
## Appendix

### LEARNING PROFILE

#### NAME: RISHI

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### LEARNER CHARACTERISTICS

**Learning Style Preference:**

- Social (SF): 80
- Practical (ST): 92
- Theoretical (NT): 52
- Creative (NF): 45

**Method of Processing:**

- Auditory: 9
- Visual: 0
- Kinesthetic-Tactual: 1

**Brain Hemispheric Dominance:**

- Left: 
- Balanced Left: 
- Balanced: 
- Balanced Right: 3
- Right: 

**PERSONAL RATING**

- (1-5) 1 - low, 5 - high
- Verbal Ability: 3
- Cognitive Skill: 5
- Personal Motivation: 4
- Self Regulation: 3

M Cecil Smith
Northern Illinois University

For several years, secondary education graduate students in my course on adolescent development have been reading and reviewing self-help books that are written for parents of adolescents. These parenting books are typically written by child psychologists, pediatricians, family therapists, or by parents themselves, and they are brimming with advice on how to raise emotionally healthy teenagers through the “difficult” years of adolescence. The basis for the authors’ advice is a combination of common sense and folk wisdom, scientific research, and clinical experience with teens and their parents.

The goal is to provide parents with helpful information for selecting books that are appropriate to their needs—and the needs of their teenage children.

Generally, the predominant themes of these books can be split into two camps. Some authors claim that raising adolescents today is more challenging than ever, and therefore parents need to be prepared to engage in a prolonged war of attrition (i.e., shape up the kid before he or she wears you down) until the teens reach adulthood and independence. These authors hold fast to the pervasive myth that adolescence is a time of “storm and stress” and that the primary role of parents is to weather the storm and set firm boundaries that serve to minimize parent-adolescent turmoil. Other authors, however, adopt a more positive view of adolescents.

Their advice is generally based upon emerging scientific evidence about adolescent development (i.e., the role of genetic factors; findings from neuroscience on brain development). Typically, these authors encourage parents to enjoy the challenges of parenting.

I am currently developing content for a new website, Parentsreview.org. This website will publish brief, objective reviews of parenting, self-help books. Many of these reviews are written by classroom teachers, family therapists, experts on adolescence, and school counselors. The goal is to provide parents with helpful information for selecting books that are appropriate to their needs—and the needs of their teenage children. Hundreds of parenting books are published annually, which creates a daunting task for parents to select appropriate books from exhaustive lists of clever titles (e.g., Now I know why tigers eat their young: Surviving a new generation of teenagers. Marshall, 2001). Also, there are numerous websites that promote and sell parenting resources such as books, audiotapes, and other self-help programs to parents, but such sites lack any objectivity and are clearly designed only to sell products—not to educate parents. Parents need an information source that they can trust. This is the purpose of Parentsreview.org.

Why should this website be of interest to secondary education teachers?

Parenting self-help books are a valuable, but long-ignored, resource for teachers that can help to foster effective parent-teacher communication and positive relationships. There are several potential benefits to be obtained when teachers are knowledgeable about parenting books. First, many parenting books contain information on normative patterns of adolescent behavior and development, much of which is based

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upon scientific studies. This information gives parents and teachers a common basis for discussing and preparing for "what's next" in regards to the adolescent student's behavior. Second, reading some of the better parenting books can give teachers (and parents) useful insights into the factors that motivate adolescents' behaviors. Third, these books can be informative for middle and high school teachers who do not have teenage children of their own. By learning about adolescent behavior outside of the classroom—in the family and the larger community—teachers will be better able to relate to the concerns of parents and adolescents.

Secondary teachers have frequent opportunities to interact with the parents of their students. Clearly, some of these interactions are positive, such as during open house events, parent-teacher conferences, and extracurricular activities. Other interactions may be much more troublesome, such as discussions concerning a student's behavioral problems or academic struggles. Typically, parent-teacher meetings are brief and focus on the student's academic performance (identifying some home and classroom strategies that serve to increase academic performance) or are simply information-gathering sessions that benefit parent, teacher, and student.

Parents tend to be less involved with their child's schooling as they progress through the secondary grades—a consequence of the child's growing autonomy and ability to work independently (Eccles & Harold, 1993). Nonetheless, many parents remain highly involved through participation in school functions, monitoring homework, and encouraging career exploration (Epstein & Sanders, 2002). Teachers and parents can work together to assist the adolescent in adjusting to junior high or high school, encourage responsible student behavior, and reinforce student learning. Thus, there are many potential opportunities for parents and teachers to communicate with one another about students. Some of these occasions may present opportunities for teachers to share parenting resources, i.e., "good books to read" about issues such as parent-teen communication, building self-esteem in adolescents, how to help the child with homework, coping with learning disabilities or emotional disorders, or what to do if the student has a substance-abuse problem. These are all topics addressed by many contemporary parenting books.

I believe it is important for secondary teachers to be not only aware that such books exist, but also to have a critical understanding of the books' contents and to share such information with parents. I encourage middle school, junior high, and high school teachers to sample from among the hundreds of titles and to read these selections.

Well-informed teachers can pass along recommended books to parents. Parent-teacher groups can be organized around discussions of some of the more popular or provocative parenting books.

This paper is an invitation to secondary teachers to read parenting books and to contribute book reviews to Parentsreview.org. Log on to my website at http://www.cedu.niu.edu/~smith/whatsnew.htm to learn more about Parentsreview.org and how to submit brief book reviews for publication. You can examine a list of more than 100 titles of recently published parenting books—all need to be reviewed!—and read examples of submitted reviews. If you would like more information about Parentsreview.org, contact me at (815) 753-8448 or mcsmith@niu.edu.

References

M Cecil Smith is Professor of Educational Psychology, Northern Illinois University. Dr. Smith's research involves studies of adults' literacy practices and how different practices contribute to literacy skills. His work has been published in a number of leading journals in education. Professor Smith teaches courses in adolescent development, adult development, research methods, and educational psychology.
Parental engagement in their children's education is of interest to educators today as it has been throughout the history of education. In fact, educators believe that parental engagement is one of the most important factors in children's academic adjustment and achievement. As an educational psychologist, the central strand of my research program has focused on understanding parental engagement in their children's education. Some of the questions I have investigated include: In what ways are parents involved? What is the impact of those forms of involvement on the learning and development of children and adolescents? Are some parents more involved in certain ways than other parents? How can teachers and schools increase parental involvement and form a partnership with parents based on the best interest of children and adolescents? How can teachers be prepared to work with parents?

I have conducted studies in smaller suburban and exurban school districts serving predominately middle-income, white families and in large urban school districts serving many low-income, minority families. Several of my studies used large, nationally representative data sets.

**Studies with Parents of Middle-Class Suburban Second Graders**

The first set of studies described here was conducted with middle-class parents of second-graders attending an elementary school in a small town within commuting distance to a medium-size, midwestern city. The children of the parents were involved in a reform mathematics program. There was some dissent about the reform program in the school district. Several parents vocalized their extreme dislike of the program and criticisms of the teachers who were participating. The dissatisfied parents were successful at having articles published in the local newspaper and at electing a school board member in a low-voter-turnout election. The teachers felt besieged and under attack by the parents. In the first two studies described here, all parents of second-graders participating in the reform program were invited to participate in interviews in order to gather the views of all parents.

Parent beliefs pertaining to their school involvement were studied (Shumow, 1997). Parents defined their role as one of joint responsibility with the school in terms of fostering their children's interests and abilities. Parents saw themselves as being "cheerleaders," believing it important that they support and encourage their children as well as providing them with experiences and materials.

The parents were interested in knowing how their children were doing in school and thought that they could tell how children were learning (in order of importance to the parents) from (a) the schoolwork children brought home, (b) the feelings the child expressed, (c) interactions with the child, and (d) conferences with the teachers. They were less interested in the results of standardized achievement test scores, expressing that tests were more important when the children were older. Since few parents understood the purpose or approach of the reform program, it was difficult for them to ascertain how their children were doing in mathematics.

During the interviews, parents were shown eight videotape vignettes, one for each of the practices that characterized the reform program (Lehrer & Shumow, 1997). The vast majority of parents thought that having the children share solution strategies and make

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**How can teachers and schools increase parental involvement and form a partnership with parents based on the best interest of children and adolescents?**

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Lee Shumow
Northern Illinois University

Thresholds in Education (Vol. XXIX:3, 2003)
conjectures about problems and how to solve them was very valuable. Collaborative group work, discussion of concepts, and indirect assistance were the most controversial practices in that they were endorsed strongly by some and rejected as worthwhile learning activities by other parents. Parents presented diverse views about education and teaching practices even in the homogenous community studied. Many parents believed that they did not have knowledge to judge professional practices. Not surprisingly, most parents based their views of reforms and teaching practices on the needs and best interests of their individual children, not on those of the whole class.

Some of the parents who participated in the interviews were videotaped helping their children solve a difficult problem similar to one that we observed the teacher helping the child to solve (Lehrer & Shumow, 1997). Each instance of adult assistance was coded. Parents were more controlling and directive than were the teachers. The teachers helped children model the problems, asked children to explain, and discussed reasons for strategies with the children more than did parents.

For the following study, a pilot version of a parent education program was developed (Lehrer & Shumow, 1997). The parent education program included providing parents with a simplified version of the material teachers had received about typical patterns in children’s thinking and problem-solving in arithmetic and geometry. Each week, several problems representing a particular type of problem were provided with the description of children’s thinking so that parents could observe their own child’s level and progress related to each problem type. Children whose parents participated in the pilot test performed better on a test of problem-solving given at the end of the school year than did children whose parents did not participate.

The parent education materials were upgraded and expanded. Newsletters were developed on each topic covered in the curriculum. The next study compared the homework assistance provided to children by parents who received the newsletters and did homework with their children to that of parents who, in addition to reading the newsletters and helping with homework, had four conversations with the researcher who observed regularly in the child’s mathematics class (Shumow, 1998a). All parents improved in the assistance they provided. They became less directive and better at supporting the child’s thinking. However, those parents who participated in the conversations about their children’s mathematical development improved more than the other parents. Evidence was collected that those parents who had participated in the conversations developed deeper knowledge of their children’s thinking than the parents who read the newsletters and observed their children.

A related study examined parents’ development as they participated in the parent education program (Shumow, 1998b). The data on parent participation indicated that parents were actively involved as monitors of their children’s progress. Understanding how children are expected to learn and develop in mathematics was important to the parents who were deeply concerned about their children. They wanted their children to learn without being too distressed by the work. As the parents developed understanding, their concerns decreased. Observing their children’s burgeoning competence contributed to their own generativity and was deeply satisfying to them. Importantly, the parents transferred their knowledge beyond the homework tasks to ongoing family experiences.

Longitudinal Studies with Low-income Urban Parents of 3rd to 5th graders

A second set of studies was conducted in an urban setting. These studies looked at parenting and the effects of parenting on children in context.

Socialization Practices

One of my studies examined socialization practices of low-income, urban parents (Shumow, Vandell, & Posner, 1998a). Harsh, firm-responsive, and lax parenting approaches were considered. Parents who were married, had relatively more formal education, and relatively more income were less likely to report harsh parenting approaches than those parents who were single and had less income and formal education. Race also was associated with harsh parenting such
that African American parents reported harsher socialization practices than European American parents. Harsh parenting strategies were related to teacher reports of problematic behavioral adjustment (work habits, peer relations, compliance with adults, emotional well-being at school) during third grade and lower achievement test scores among the children when they reached fifth grade, controlling for demo-

Harsh parenting strategies were related to teacher reports of problematic behavioral adjustment.

graphic differences among parents. Firm, responsive parenting was associated with more responsible behavior among the children but did not translate into better academic performance as has been shown in many studies with middle-class families.

School Choice
Another study with the same, low-income, urban families examined their use of a school choice plan (Shumow, Vandell, & Kang, 1996). Those families who chose to utilize school choice were different from those who did not. The families who chose schools had more effective parenting skills. Controlling for those differences, children who attended choice schools did slightly better on mathematics assessments but no better on reading assessments than those attending assigned schools. Parental involvement at school had a far larger effect on school performance than school choice, and parental involvement was higher in assigned schools than in choice schools probably because most of the assigned schools were neighborhood schools which were accessible to the parents. Teachers in both types of schools reported using similar strategies and effort to involve parents.

After-School Options
I also assisted in other studies with this population in which the after-school activities of the children were examined (Vandell & Shumow, 1999; Vandell, Shumow, & Posner, in press). Parents are a factor in after-school care because they make decisions about the after-school settings to which children are exposed. Parents with more resources have more choices. However, even in this low-income sample, parents made some decisions including determining when the child was ready for self-care (“latch key”). We found that the parents were influenced by the child’s age (younger associated with less self-care), maturity (immaturity associated with less self-care), gender (girls had less), and neighborhood safety (risky neighborhoods associated with less). The children who spent more time alone in third grade had more behavior problems in third grade, and those problems persisted for the two years the study continued. Children who began self-care in fifth grade did not demonstrate those problems. However, children who spent more unsupervised self-care time with peers were more likely to have behavior and academic problems than children who spent less time unsupervised with peers.

In another case study, we observed the conditions under which after-school programs for school-aged children can enhance or impede child development. We identified a number of ways in which two neighboring programs serving children from high-risk families and neighborhoods differed. The successful program had a child and community-centered philosophy, dedicated and trained staff, as well as age appropriate organization and activities that balanced autonomy and support. The successful program’s director was attuned to the backgrounds of the children. She was able to articulate a clear vision for the program, supervise and train her staff actively, and communicate well with parents. The staff managed children’s behavior positively and worked to support children’s development. In contrast, the unsuccessful program had a director who did not monitor or train her staff and had little to no communication with parents. The children experienced rather boring and poorly prepared activities. Unfortunately, the staff was often negative and punitive with the children.

The children who spent more time alone in third grade had more behavior problems in third grade and those problems persisted for two years.
The children who attended the child-centered program improved in their abilities to relate to peers whereas the children attending the unsuccessful program suffered in their peer relations.

**Neighborhood Risk and Parenting**

The families we studied lived in neighborhoods that ranged in safety and quality. We examined how that neighborhood quality affected the children and found that the level of neighborhood risk predicted children's school adjustment such that children from higher risk neighborhoods tended to have more academic and social-emotional difficulties at school than children from moderate risk neighborhoods by fifth grade but not during third grade (Shumow, Vandell, & Posner, 1999). However, some of the children who lived in the highest risk neighborhoods displayed resilience—they did relatively well despite residing in risky circumstances.

We analyzed characteristics operating in their lives and found that parental involvement in school was a large predictor of resilience. We also examined children's conduct problems and psychological distress using teacher, parent, and child reports (Shumow, Vandell, & Posner, 1998b). Actual (objective measures) neighborhood risk was associated with children's and with parents' perceptions of the danger in the neighborhood. Teacher reports of behavior problems in school were associated with the level of danger in the neighborhood. However, teacher reports of psychological distress symptoms were not associated with neighborhood dangers in which the children lived. Parents' and children's reports of psychological distress symptoms in the children were associated with neighborhood danger. Parents' and children's perceptions of the risk served as a psychological link between the actual risk and children's behavior problems and psychological distress as reported by parents and children.

**Teacher reports of psychological distress symptoms were not associated with neighborhood dangers in which the children lived.**

**Studies with Nationally Representative Samples of Adolescents and Parents**

**School Involvement of Parents with Young Adolescents**

Recently, I studied seventh-graders and their parents, using a nationally representative sample, and found that parent involvement at school and parent involvement in academics at home were different types of involvement (Shumow & Miller, 2001). Parent involvement at school included school visits, parent-teacher organization participation, and attentiveness to school issues. Parent involvement at home included assistance with writing assignments, mathematics homework, special projects, and the amount of time parents helped. The data indicated that fathers were less involved at school than mothers but equally involved at home. Parents of struggling students were more involved with homework help than other parents. In general, parents' educational level also predicted the type of involvement in that high school graduates helped their children with homework more often than parents who had not graduated from high school, and college graduates were more involved at school. However, parents of children who were succeeding in school were more involved at school regardless of their own educational level. Parents who had not graduated from high school and whose children were struggling were the most discouraged about school involvement.

The two types of involvement were used to predict the seventh-graders' achievement test scores, grades, and school orientation (motivation and valuing of school). Parents' at-home involvement was associated negatively with student grades and achievement test scores but positively with students' school orientation. At-school involvement was associated with higher grades but was not related to standardized achievement test scores or school orientation.

**Parents of Students 10- to 17-Years of Age**

Another recent study (Shumow & Lomax, 2002) utilizing a different, nationally representative data set collected from adolescents and their parents focused on parental efficacy (how much parents believed that they could influence peer and community contexts impacting their child). That study found that more efficacious parents engaged in behaviors that influenced positively their adolescents' development such as parental...
involvement (attendance at school and extracurricular events, talking to teachers, attending school meetings, volunteering, and working with youth organizations) and monitoring of their adolescents' activities and whereabouts. Those parenting behaviors were associated with better academic performance among the adolescents. The study also looked at contributors to parental efficacy. Not surprisingly, parents were less efficacious with older adolescents and more efficacious in better quality neighborhoods.

Parent and adolescent perceptions of school safety were investigated using the same data set as the efficacy study (Shumow & Lomax, 2001). In those analyses, school climate predicted more parental involvement, which in turn predicted parent and adolescent perceptions of the school as a safer environment. Another notable finding of this study for educators is that younger adolescents were more likely to report that their teachers knew them and their parents than were older adolescents. Those reports were linked to identification of more caring adults in their life, which, in turn, were linked to perceiving the school as safer. Taken in combination with recent studies that adolescents do want their parents involved in their schooling, educators might want to make more efforts to connect with parents of older adolescents.

Messages for Educators

Educators can derive a number of messages from my work. The first is that parental involvement is multidimensional. Parents are involved in many ways. Some of those ways are very visible to educators. Other ways are not as visible and, consequently, can be overlooked and unrecognized.

Another message of my work is that parents care about their children's education and want the best for them, but they do not always have the skills and knowledge to help their children. Thus, teachers, with the help and support of their administration, can work in partnership with parents around the common goal of the child's best interest. One way to accomplish that is by creating a welcoming climate and by listening to parents. When parents perceive the school climate positively, they are more likely to be involved at school. Another important aspect of building a partnership includes ensuring parents that their children are learning and cared for at school. Yet another aspect might include providing parents with information that allows them to understand their children's learning and development and how to support it.

Teachers also should be careful not to assume that all parents speak with the same voice. Parents are diverse in their views even in homogenous communities. My research points out that it is important not to assume that the "squeaky wheel" speaks for all or even most parents. It might be best to gather ideas and feedback from all parents.

Findings from my research on parental socialization practices suggest that children do best when parents are not harsh. Educators might help to lessen harsh parenting by modeling and endorsing alternative approaches to disciplining children by using a problem-solving approach with specific proactive suggestions provided when presenting and discussing children's problems to parents. Schools might offer or sponsor parenting classes or parent education programs presented by school social workers, psychologists, or community agencies about discipline.

Recently, school-choice programs have been touted as a solution to the difficulties of urban public schools. My study on choice suggests that parents who choose schools are different in ways that advantage their children. Further, the findings demonstrate that parental involvement was more important in predicting school success than participation in choice programs. That study suggests that policy might be more productively aimed at involving parents in school than in establishing choice programs.

The studies of neighborhood risk and after-school options suggest that programs need to reach children before they reach adolescence when symptoms begin to appear. The study also suggests that parents are sensitive to children's psychological distress. Teachers can benefit from parental insight by calling upon parents as allies who can explain children's behavior.

**School climate predicted more parental involvement, which in turn predicted parent and adolescent perceptions of the school as a safer environment.**
and help prevent the problems from worsening. Parents' and children's perceptions might make them amenable to messages of personal safety programs. Some researchers have found that residents in high-risk neighborhoods who know and take safety precautions suffer less fear than those who do not. Safety programs offered by the police or other community agencies might be of high interest to parents and could be offered at the school and sponsored by parent-teacher organizations.

There are a number of important implications of the study of middle-school students and their parents. First, fathers are involved but their involvement is at home, not at school, and so is less visible and probably less recognized than that of mothers. Another important finding of that study is that parents, at least of middle-school students, are more involved in trying to help their children with homework and school assignments when their children have been struggling in school. Those same parents do not have as much contact with the school as parents whose children are performing well. This might occur because of prioritizing and time constraints—parents might choose to give the most direct form of help they can. Or, it might occur because parents of struggling children are discouraged about involvement with the school. After all, most of us prefer to avoid situations that make us feel unsuccessful. It is important for teachers not to mistakenly conclude that the parents do not care and are not trying just because they do not see them. The parents of successful children involve themselves with the school, possibly because they have the time and feel empowered in connecting with the school. Teachers might make extra efforts to provide parents of less successful students with some positive and optimistic messages which might help foster hope and increase parents' willingness to come to the school. Parents also might benefit from information that helps them to monitor their young adolescents' homework and to find assistance for their struggling children.

Finally, and importantly, my recent work demonstrates that teachers can learn about how to engage parents and feel more knowledgeable and confident as a result. I have worked with colleagues to design and implement activities in the preservice teacher curriculum. A course has also been designed and offered to practicing teachers. That course can be delivered in our partnership school districts and allows teachers to earn graduate credit as they develop parental engagement projects for their classrooms. The research on this project is forthcoming.

Questions about the research presented in this article may be directed to me at 815-753-8445 or lshumow@niu.edu.

Endnote

1 Parenting approaches were defined by the following behavior:

Harsh: Value obedience, demand respect for authority,
favor punitive discipline and expect children to accept
authority unquestioned.

Firm-responsive: Set attainable standards, explain reasons
for the rules, are firm as a means of meeting children's
needs.

Lax: Set few requirements for the child, do not monitor
activities, and are lenient about behavior standards.

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Learner-Centered Practices and Student Motivation

Jean Pierce
Northern Illinois University

Message for Educators Regarding Student Motivation

Student motivation is related to their perception of the learner-centeredness of teachers' practices.

Research Base

In the 1990s, the American Psychological Association (APA) gathered a task force consisting of many of the top researchers in educational psychology. They identified 14 “Learner-Centered Principles” which summarize research findings that have been confirmed repeatedly. The principles are listed in Table 1. More details about each one can be found at http://www.apa.org/led/ lcp.html.

Practices and beliefs consistent with these principles can be measured with the Assessment of Learner-Centered Practices (ALCP). All levels of the ALCP surveys from grades K through college are

<table>
<thead>
<tr>
<th>Table 1. Learner-Centered Psychological Principles</th>
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<tbody>
<tr>
<td><strong>COGNITIVE AND METACOGNITIVE FACTORS</strong></td>
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<tr>
<td>1. Nature of the learning process. The learning of complex subject matter is most effective when it is an intentional process of constructing meaning from information and experience.</td>
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<tr>
<td>2. Goals of the learning process. The successful learner, over time and with support and instructional guidance, can create meaningful, coherent representations of knowledge.</td>
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<td>3. Construction of knowledge. The successful learner can link new information with existing knowledge in meaningful ways.</td>
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<td>4. Strategic thinking. The successful learner can create and use a repertoire of thinking and reasoning strategies to achieve complex learning goals.</td>
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<tr>
<td>5. Thinking about thinking. Higher order strategies for selecting and monitoring mental operations facilitate creative and critical thinking.</td>
</tr>
<tr>
<td>6. Context of learning. Learning is influenced by environmental factors including culture, technology, and instructional practices.</td>
</tr>
<tr>
<td><strong>MOTIVATIONAL AND AFFECTIVE FACTORS</strong></td>
</tr>
<tr>
<td>1. Motivational and emotional influences on learning. What and how much is learned is influenced by the learner's motivation. Motivation to learn, in turn, is influenced by the individual's emotional states, beliefs, interests and goals, and habits of thinking.</td>
</tr>
<tr>
<td>2. Intrinsic motivation to learn. The learner's creativity, higher order thinking, and natural curiosity all contribute to motivation to learn. Intrinsic motivation is stimulated by tasks of optimal novelty and difficulty, relevant to personal interests, and providing for personal choice and control.</td>
</tr>
<tr>
<td>3. Effects of motivation on effort. Acquisition of complex knowledge and skills requires extended learner effort and guided practice. Without learners' motivation to learn, the willingness to exert this effort is unlikely without coercion.</td>
</tr>
<tr>
<td><strong>DEVELOPMENTAL AND SOCIAL INFLUENCES</strong></td>
</tr>
<tr>
<td>1. Developmental influences on learning. As individuals develop, there are different opportunities and constraints for learning. Learning is most effective when differential development within and across physical, intellectual, emotional, and social domains is taken into account.</td>
</tr>
<tr>
<td>2. Social influences on learning. Learning is influenced by social interactions, interpersonal relations, and communication with others.</td>
</tr>
<tr>
<td><strong>INDIVIDUAL DIFFERENCES</strong></td>
</tr>
<tr>
<td>1. Individual differences in learning. Learners have different strategies, approaches, and capabilities for learning that are a function of prior experience and heredity.</td>
</tr>
<tr>
<td>2. Learning and diversity. Learning is most effective when differences in learners' linguistic, cultural, and social backgrounds are taken into account.</td>
</tr>
<tr>
<td>3. Standards and assessment. Setting appropriately high and challenging standards and assessing the learner as well as learning progress -- including diagnostic, process, and outcome assessment -- are integral parts of the learning process.</td>
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intended to provide self-assessment tools for students and their teachers regarding the degree to which classroom practices are consistent with the APA Principles. Two items from the ALCP which measure fourth through eighth grade teachers' practices consistent with the first principle are: "I encourage students to express their own unique thoughts and beliefs." And, "I encourage students to think for themselves while learning."

Normative data are available for four versions of the ALCP: (a) for grades K-3, (b) for grades 4-8, (c) for grades 9-12, and (d) for higher education. Instructors can see how their ratings of their own education beliefs and practices relate to ratings by other teachers. Instructors can also see how their students' perceptions of their practices and their students' reports of motivation compare to norms compiled for thousands of students throughout the United States.

McCombs (1999) has recommended that instructors use feedback from the survey to inform their reflective teaching while trying to develop learner-centered practices. This information is intended solely for self-monitoring. It is not meant to be part of teacher evaluation criteria for a school or district unless an individual teacher chooses to reveal his or her scores.

Research by McCombs, Pierce, and others using the ALCP has supported the premise that teachers' learner-centered beliefs are related to their practices, and students' perceptions of these practices tend to be related to the learners' motivation. While teachers' beliefs do tend to be related to their practices, it is the students' perception of those practices that is most strongly related to their motivation. This has been shown both for increased student self efficacy (e.g. "I am certain I can do even the hardest work in this class if I try.") and for learning goal orientation (e.g. "I want to learn as much as possible in this class.").

Pierce and others have found that problem-based learning is one example of a learner-centered practice which encourages students to express their opinions and to think for themselves. In problem-based learning, students construct ideas about a topic while they confront a simulated or real problem. They wrestle with identifying and defining the problem from different perspectives as they realize that they need to learn and integrate information from various disciplines. Developing a practice such as problem-based learning is not easy for instructors. However, using the ALCP to monitor and inform their efforts while they see the impact on their students provides feedback which assures teachers of their progress.

References for additional information:


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What Can American Educators Learn from Japanese Education?¹

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Northern Illinois University

As a cultural psychologist, I study culture notions and its implications for human development and learning. In this article, I shall discuss the notion of learning in Japan. I have conducted a large-scale, ethnographic study of the Japanese education system (Shimizu, 1998) funded by the U.S. Department of Education as a part of the Third International Mathematics and Science Study (TIMSS). This and other studies that focused on Japanese preschool and elementary education (Lewis, 1995; Peak 1991; White, 1987) show that learning in Japan may be more adequately described as an interpersonal and relational concept, rather than an exclusively intellectual and cognitive concept.

Parents I interviewed during the TIMSS Case Study project described teachers whose intention was to teach students, but not to develop personal relationships with them as, "salary men teachers." One parent complained, "Teachers today are no different from salary men (white collar workers who work for big corporations). All they care about is to teach, get their salaries, and go home." This remark suggests a belief that education takes much more than the transfer of knowledge between the teacher and the student, for it involves committed relationships between the two parties.

One notion that epitomizes this interpersonal and relational frame of mind is that of whole-person education (zenjin kyoiku). The philosophy behind whole-person education is that students must be educated for not only their intellectual and cognitive development, but for their overall social and moral character as well. (Lewis, 1995; Shimizu, 1999). In preschools and elementary schools, for example, children are inculcated to identify themselves as members of a group. The group can be a preschool playgroup, elementary school class, or Japanese as a whole. Educating children to be members of a group is not simply a pedagogical ideal. Rather, it is the moral foundation of Japanese preschool and elementary education.

What brings students together in a classroom is the culturally routine practice of showing sensitivity toward and subsequent identification with other people’s feelings and thoughts. Before discussing this practice in the classroom, however, let me share with you how people follow this general, cultural script in their daily lives.

One example is an anecdote of a woman who was troubled by her neighbors who put their garbage in front of her house despite her plea not to (Keiko Kashiwagi, personal communication, July, 1988). First, she put out a sign merely stating the rule: "Please don't put the garbage here because you are supposed to place it at the designated place." Since no one followed this instruction, she posted another sign that indicated her honest feelings, "I'm so greatly inconvenienced because no one is willing to listen to my plea!" Immediately her neighbor stopped putting out the garbage. A second story comes from my wife. When she and I were living in Japan for the TIMSS project, she found a sign in a university’s women’s bathroom saying “Keep this room clean. The toilet is crying.”

I used these two examples because they seemed to describe Japanese style humanism. Japanese human-

The philosophy behind whole-person education is that students must be educated for not only their intellectual and cognitive development, but for their overall social and moral character as well.
isn’t is uncomfortable with the idea that people (and even an inanimate object) function without having feelings for each other. This is one of the reasons why abstract rules and regulations do not appeal to many people. What appeals to them is what they call hito no kimochi or (other) people’s feelings. A logical explanation of why rules must be followed exerts little power over people’s desire to follow them. However, they are likely to follow a rule if they are told that breaking the rule might inconvenience others or hurt their feelings. To be sensitive to other people’s needs and feelings in a way that you actually accommodate yourself to fulfill their desires is called omoiyari in Japanese (Lebra, 1976). The word omoiyari is a combination of two words omou, to think of, and yaru, to give. So omoiyari means giving one’s thoughts to improve the well-being of other people.

One could argue that Japanese preschool and elementary education is built upon the moral foundation of omoiyari. To pay close attention to and to identify with perspectives of others is not one of several pedagogical objectives: It is the essential goal of education. Educators try to instill this fundamental value early in a child’s life. Peak (1991) reached this conclusion in her research of Japanese preschools. One vivid example she gives is an incident that took place in a preschool she visited.

After a morning, outdoor play session, the teacher told her pupils to go inside; but one child, Satoshi, was engrossed in playing with toys in the playground and refused to go inside. In her effort to bring Satoshi inside, the director of the preschool (who was acting as an assistant teacher at the time) used a method that Peak described as “psychologically out-maneuvering” the child. Specifically, she presented herself and the indoor activities as attractive to the child as possible. While she persistently played this role of the benevolent figure, she gradually persuaded Satoshi that playing alone outside and refusing to join the rest of the group would be the least attractive option for him.

Here is how her technique worked. When she first approached Satoshi, she told him that everyone was having fun inside and she wanted him to join them. When the child refused, she remained friendly to him, but told him quietly but firmly that it was better for him to go inside. She picked him up and tried to take him inside. The child cried and hit the teacher, but she remained calm and told him, “OK, if you want to play so much, let’s stay here and play.” But, by the time two of them returned to the sandbox, Satoshi was already upset. He was no longer in a good mood although he was granted his wish to play outside. The teacher repeated this process until it became obvious to the child that the only way to have fun was to do as the teacher said and to join everyone else.

From the teacher’s point of view, the child lacked omoiyari because he refused to join the rest of the group. He was causing trouble for his classmates because they were supposedly waiting for him inside. To make him understand this, the director avoided relying on her authority by ordering the child to come inside. Instead, she appealed to the child’s budding sense of omoiyari, empathy, and helped him accept that it was much more interesting to play as part of a group than to play all by himself.

**To be sensitive to other people’s needs and feelings in a way that you actually accommodate yourself to fulfill their desires is called omoiyari.**

Lewis (1995) also made an observation about the intimate connection between learning and omoiyari in Japan. She gives another memorable incidence entitled, “Preschoolers ‘Bomb’ Goldfish.”

Two hours into a morning of free play at National University Preschool, several 5-year-old boys began to roll small clay balls and drop them into the class’s goldfish aquarium, shouting, “Bombs away.” Ms. Nomura, standing nearby, looked over and commented softly, “That could hurt the fish.” The boys continued dropping the “bombs,” and Ms. Nomura explained in a matter-of-fact tone, “That clay looks like the food we give them, but it’s not good for them like food. In fact, it could hurt them.” The boys continued to drop clay balls into the aquarium, and Ms. Nomura said wistfully, “How sad the class will be if the fish get hurt.” Several boys continued to drop clay
balls into the aquarium, but Ms. Nomura said no more. (p. 125)

At the end of the school day, Ms. Nomura summoned her whole class and told them that some members of the class were trying to help the fish by feeding them clay balls without knowing that it could hurt the fish. The whole class was involved in the discussion of

**Some might think that the children were dropping the clay balls only to get a “kick” and were lying that they were trying to help the fish.**

what one should do in a situation like that. Many children voiced their opinions that they did not want to hurt the fish. In response, Ms. Nomura ended the discussion by making the following two suggestions to her students. First, next time someone sees someone else dropping clay balls in the fish tank, he should tell her students. First, next time someone sees someone misbehaving. In one study (Conroy, Hess, Azuma, & Kashiwagi, 1980), for example, researchers heard a mother say to her child, “Stop drawing on the walls, or the walls would feel sad!”.

Second, notice how the teacher’s instruction to the children hinges on the assumption that the children who were dropping clay balls in the fish tank genuinely wanted to help the fish and did not understand that doing so could hurt them. The teacher’s assumption might appear rather naive to some Western observers. Some might think that the children were dropping the clay balls only to get a “kick” and were lying that they were trying to help the fish. Ms. Nomura firmly denied this possibility. When Lewis asked later if she really thought the children were trying to help the fish by throwing the clay pellets, the teacher said, “Yes.” When Lewis asked her if she really believed that the boys did not understand that they could hurt the fish by throwing the clay pellets, the teacher said, “If they understood it was wrong, they wouldn’t do it” (Lewis, 1984, p. 77).

These two examples demonstrate how teaching and learning in Japan require empathetic understanding of what goes on in other people’s minds instead of simply understanding rules and principles stated in an abstract way. Note that Ms. Nomura never told the child that throwing objects other than fish food in the fish tank was wrong in terms of rule-setting. Instead, she asked her students to empathize with the fish who could get hurt by their mistreatment. Second, she empathized with the children who were throwing clay balls by simply accepting their claim that they were merely trying to help the fish. Finally, she asked her students to empathize with her to understand that throwing clay pellets in the fish tank could hurt the fish. In all cases, learning evolves around putting oneself in other people’s shoes and figuring out how one can best respect others’ feelings.

In elementary school, teachers emphasize the

**While preschool teachers emphasize affective identification with others, elementary school teachers emphasize cognitive identification with others.**

importance of identifying one’s cognitive processes with those of others in the same way that their preschool counterparts emphasize the importance of identifying one’s feelings with those of others. In other words, while preschool teachers emphasize affective identification with others, elementary school teachers emphasize cognitive identification with others.

Specifically, elementary school teachers rely on the teaching method called whole class instruction (Lewis, 1995; Shimizu, 1998; Stevenson and Stigler, 1992). In
whole class instruction, the whole class studies one given topic at the same time. There is no grouping or tracking of students by ability. However, students are encouraged to think of many different ways to solve a problem. Both as classroom work and as homework, teachers give students ample time to generate their own solutions to a class problem. After the students have the answers, much of the classroom instruction is focused on discussing merits and demerits of each answer provided by the students.

Many elementary school teachers discount the value of giving the right answer without truly understanding the logic behind it.

One elementary school I visited had a system of hand signals that indicated students’ responses to their classmate’s answer. The hand with the first finger pointed up means, “I agree.” The hand with the second finger pointed up means, “I have an opinion to add.” The hand with the third finger pointed up means, “I disagree,” and so on. With the use of these signals, the teacher could easily get the sense of how each member of the class thought of an answer given by a student. Usually, the teacher called on students with the “I have an opinion to add” sign and compared and contrasted many different ways of solving the one problem. Each student was commended for participating in this group problem-solving process regardless of whether he or she had the right answer. Many elementary school teachers discount the value of giving the right answer without truly understanding the logic behind it. This is one of the reasons why they solicit reasoning behind students’ problem-solving processes. The other method by which teachers involve students into the thinking process is to use students’ incorrect answers (or a lack of the correct answer).

In another class I visited, the whole class worked on the question of, “How many ways are there to unfold a cube” (Shimizu, 1996). The answer was twelve, but someone suggested that there were thirteen ways to do this. The teacher simply posted the number 13, the name of the student who came up with this answer, and the heading, the “13-way theory given by [student’s name].” Some other students insisted that there were only 12 ways to unfold the cube, but the teacher never told the class this was the right answer, and the class continued trying to find the 13 ways to unfold the cube. Later when I interviewed the teacher, he told me that simply telling students the right answer was throwing away the golden opportunity for learning. He said that sooner or later most of the students in the class would come to the conclusion that there were only 12 ways to unfold the cube instead of 13. He said having to engage in the thinking to arrive at the conclusion was more important than knowing the right answer.

In summary, learning in Japan is much more than the understanding of abstract concepts or demonstration of practical knowledge. It involves understanding of how such knowledge is shared in the minds of other people. It involves understanding of what it means for other people to have certain feelings and cognitive processes and identifying oneself with their feelings and thoughts. Such identification is the necessary prerequisite condition for any type of learning, not one of several “traits” or “skills” to be included in a given curriculum.

My hope is that the insights provided by the Japanese evidence cited will help American educators, students, and parents move beyond the common habit of merely seeing Japan as a competitor (see LeTendre, 1999). Instead, I hope that we see each other as the mirror to ourselves (see White, 1987). Take, for example, the currently popular notion of constructivism based on the theory of Russian psychologist Lev Vygotsky. Although it is often credited as a theoretical cornerstone of “collaborative” learning, one must not forget that the ultimate goal of learning, according to Vygotsky and many American educators, is to scaffold students to help them transition from being dependent...
learners to independent learners. In Japan, the goal is opposite, i.e., to make dependent learners (with omoiyuri) out of independent (i.e., self-regulated) learners. The Japanese may have a goal opposite to ours, but they generally achieve the very outcome we desire in our students: cooperative, yet self-motivated (sunaod) learners. As a cliché goes in many in Japanese classrooms, there are indeed many ways to solve a common problem—of figuring out how students learn best.

Endnote
This article is a modified, shorter version of a chapter that appeared in Gerald LeTendre’s (1999), Competitor or ally? Japan’s role in American educational debate (pp. 65-81)—Individuality, learning, and achievement in Japan: Japanese perspectives.

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A New Relationship with Our Minds—Multistate Mind

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When a new view of the human mind begins to influence the social sciences, it sets off a domino-effect cascade of new ideas. This is happening now. The new idea is the multistate paradigm—the recognition that our minds produce and use many mindbody states. From the multistate perspective, our usual state of being awake is just one among many possible states, and its education is a fraction of our mind’s fullest education. This article outlines the multistate paradigm and identifies some of the domino cascade in educational studies. To me, discovering, exploring, and developing the great variety of mindbody states (and even inventing new ones) is the major intellectual opportunity of our times.

Introduction

I find the best way to teach a multistate paradigm to my classes is the following imaginary situation:

Imagine that a friend of ours has just bought a powerful new computer and is telling us about it. "What are you going to use it for?" I ask. "I’m going to play chess," he answers. "Are you going to use it to write, check your spelling, and look up words in the thesaurus?" you ask.

"No," he responds, "I’m going to play chess." Another friend asks, "You’re going to send email, aren’t you? You can communicate around the world on the Internet and find information on the World Wide Web."

"No!" he insists, "I told you, I’m going to play chess!"

"What about bookkeeping, spreadsheets, tracking your financial records, and taxes?" asks another friend who is an accountant. "You’re going to use it for these, aren’t you?"

"NO! NO!" our friend shouts angrily, "I’m going to play chess!"

We all recognize that our friend is underutilizing a powerful information-processing tool. He doesn’t have to limit himself to the chess program.

In some ways we resemble our chess-playing friend. Just as a computer has many information processing programs, each good for its specific purpose, so do our minds. These “programs” are our various mindbody states, also called “states of con-

Discovering, exploring, and developing the great variety of mindbody states is the major intellectual opportunity of our times.

The Multistate Paradigm

By extending research on standard topics such as learning, cognition, and development into other mindbody states, the multistate paradigm envisions...
expanding education to include learning to use all productive mindbody states, not only our usual, awake state. Educational studies take on the exciting challenge of exploring and developing the multistate frontiers of our minds.

If education is to be realistic about the human mind, it must recognize its multistate nature. This recognition is not new, but its current re-recognition is. As William James wrote (1902/1982):

[O]ur normal waking consciousness, rational consciousness, as we call it, is but one special type of consciousness... apply the requisite stimulus, and at a touch [other potential forms of consciousness] are there in all their completeness, definite types of mentality which probably somewhere have their field of application and adaptation. No account of the universe can be final which leaves these other forms of consciousness quite discarded. (pp. 298-299)

And, we might paraphrase: no account of education can be final which leaves these mindbody states quite discarded. Chess is not the only game in town.

The multistate paradigm recognizes that our minds and bodies produce and use many mindbody states, our ordinary state being one. Adapting from Charles Tart's many works (e.g., 1969), I define mindbody state as

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**Some people solve problems in their sleep, in their dreams, and in other mindbody states.**

"an overall, unified pattern of physiological and mental functioning at any one time."

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**Mindbody Psychotechnologies**

These states can be produced by many kinds of meditation, breathing techniques, certain exercise routines, the martial arts, hypnosis, psychoactive drugs, spiritual routines, diet, and biofeedback, among others. Just as a person who has a computer can continually learn to use new programs or even write new ones, humans can learn mindbody psychotechnologies to develop a variety of mindbody programs.

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**Extending Intelligence**

Using Sternberg's (1988) concept of intelligence as "mental self-management," it is clear that someone who can use a larger repertoire of mindbody programs has more mental self-management options and flexibility (is potentially more intelligent) than someone with a more limited selection. Our current definitions of intelligence all have to do with optimally using our usual awake state. That is, we call someone intelligent if he or she uses this state well. But some people solve problems in their sleep, in their dreams, and in other mindbody states. Doesn't this call for a multistate extension of "mental self-management" into other states?

Examples abound: Robert Louis Stevenson dreamed some of his plots. French philosopher Condorcet solved a difficult mathematical equation in his sleep. William Blake dreamed that his dead brother instructed him in an engraving technique. Kekule literally dreamed up the benzene ring. Archeologist Hilprecht dreamed that a Babylonian priest showed him how to decipher cuneiform (MacKenzie, 1965). Mullis attributes his Nobel Prize winning invention of the PCR technique to a cognitive skill that he learned during LSD experiences (Mullis, 1998); and Roberts proposes that psychedelic-induced mystical experiences may strengthen the immune system (1999) and promote spiritual development (2001).

If skillful, mental self-management includes using one's dreams to "solve problems and produce products and services of value in a culture" (to use Gardner's definition, 1983), can one become more intelligent by learning dream-based cognition? The optimal use of each state represents intelligence in that state, but our educational system specializes in developing the intelligence of only our usual state. To go a step further, is selecting and producing useful mindbody states a sort of meta-intelligence?
Redefining Possible and Impossible

What we habitually think is possible or impossible is largely determined by looking only at the capabilities of our ordinary, mindbody state. When we learn to use our minds in new ways, it is natural to expect new possibilities to emerge, changing what we now think are possible and impossible. Current claims that a cognitive skill is possible or impossible need to be preceded by “according to what we now know about our ordinary mindbody state.”

A Fully Educated Person

The impact of an increasing number of psychotechnologies is altering our view of what our minds are capable of and what education can become. Like new programs for computers, new mindbody programs make it possible to learn to do additional things with our minds and bodies. Examples abound.

Through biofeedback, one can learn to control the autonomic nervous system to an extent unimagined a few decades ago, thus, expanding the psychomotor domain manyfold (Biofeedback and Self-Regulation, 1976+). Meditation increases both the content learned and classroom behavior of students (Murdock, 1987). Imagery seems to be especially powerful in other mindbody states and has been used successfully in sports (Murphy, 1992), as a teaching technique (Wass, 1991), and as a way to strengthen the placebo effect (Harrington, 1997). Hypnosis raises questions of how one learns to be a talented, hypnotic subject and about the kind of memory that is tapped during these and other mindbody processes (Rossi, 1986). Taken together, these examples indicate a wider meaning for what it means to be a well-educated person: A fully educated person can select and use a large number of mindbody states.

Multistate Research Inquiry

In effect, the multistate paradigm enriches educational studies’ research questions and methods manyfold.

More Inclusive Databases

Because the singlestate fallacy leads us to exclude observations about human behavior and experience in states other than our normal, awake state, our knowledge about the human mind displays a sampling error. Tart (1969) in his landmark book Altered States of Consciousness makes the point succinctly:

The most important obligation of any science is that its descriptive and theoretical language embrace all the phenomena of its subject matter; the data from [altered states of consciousness] cannot be ignored if we are to have a comprehensive psychology (p.5).

Similarly, if we are to have the most complete understanding of our mind’s fullest education, then we must include evidence about all mindbody states, not just one.

The Criterion of Multistate Breadth

Because researchers hope to formulate principles that apply across many situations, a common rule for evaluating a generalization’s strength is: the wider the range of observations, the stronger the conclusion. Most current generalizations in the social sciences and education will be strengthened (or their limitations recognized) if they are informed by observations from additional mindbody states. Testing today’s singlestate knowledge claims in other states is another opportunity for future generations of researchers.

Wrestling with Anomalies

Anomalies mark the boundaries of current theories; they alert researchers to possible errors; and they are leads to future research directions. Where are anomalies that can challenge our graduate students? The multistate woods is full of anomaly trees. Practically any good book about research on hypnosis, meditation, psychedelics, or other altered states will provide enough anomalies to keep a whole class struggling intellectually.

The Central Mindbody Research Question

As with other paradigms, the multistate paradigm asks a new series of questions: How does ___ (insert topic here) vary from mindbody state to mindbody state?
THE CENTRAL MULTISTATE RESEARCH QUESTION

How does/do ____ vary from mindbody state to mindbody state?

To invent new hypotheses, questions, and research agendas, insert the following topics or others of your own choosing into the central mindbody research question.

- cognition
- consciousness
- movement
- meaning
- learning
- memory
- development
- emotions
- perception
- performance
- sensations
- observation
- values
- identity
- reason
- motivation
- health
- social interaction
- intelligence
- self-concept
- etc.

Independent Variables, Dependent Variables, and Research Object

In experimental terms, as we insert our favorite topics into the central research question, each state becomes an experimental “treatment”—an independent variable that allows us to reexamine psychological and educational processes as they vary from state to state. But mindbody states can also become the object or process being researched—a dependent variable. How many states are there? How do we produce them? What states do various psychotechnologies produce? How do we describe them? What abilities reside in them? What typologies best categorize and organize them?

Researcher’s Mind as Variable

While the human mind is the primary instrument used in all research, we use it in only one of its modes. As psychiatrist Kubie (1954) pointed out in another context:

A discipline comes of age and a student of that discipline reaches maturity when it becomes possible to recognize, estimate and allow for the errors of their tools. . . . Yet there is one instrument which every discipline uses without checking its errors. This, of course, is the human psychological apparatus. (p. 349)

While Kubie was discussing the influence of the unconscious, his point is well-taken when we recognize that the singlestate fallacy leads us to selectively restrict our “mental instrument” to only one program. In a very real sense, almost everything we know is an artifact constructed by the cognitive processes of our mind’s ordinary awake program. When we learn to use our minds in new mindbody states, what will we discover about reality? In the future, will the most skillful researchers use their minds in multistate ways? The challenge of developing methods and techniques with mind-state as a variable remains one of the most difficult and intriguing areas for creative minds to explore.

New Mindbody States and New Cognitive Processes?

To date, most mindbody psychotechnologies tend to be used alone, but by combining them in novel recipes or by sequencing them in new ways, will it be possible to construct mindbody states that have not before existed? Can one construct previously unknown states? Which current abilities will become stronger or weaker in them? Will our current abilities have cognates in these new states? What presently unknown abilities might future researchers discover or construct?
Summary

Among the benefits a multistate paradigm offers are: (1) including phenomena which have been neglected, (2) integrating anomalies, (3) adding useful concepts, (4) positing new relationships among observations, (5) providing new variables, treatments, and methodologies, (6) strengthening generalizations and theories by broadening the scope of observations they are based on, (7) proposing questions that can launch new research agendas, (8) constructing previously unknown mindbody states with their own cognitive processes, and (9) strengthening the professional preparation of educational researchers. This view hints at future graduate programs that collect mindbody states and psychotechnologies worldwide to study them for their possible uses.

Mapping our minds’ virtually endless mindbody frontier can invigorate educational studies and place them in the forefront of the multistate view of the human mind. If we can believe current leads, it may be possible to discover multiple mindbody states, explore them, and develop unrecognized cognitive processes (and perhaps even invent new ones).

References

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