4cyd CENTER FOR YOUTH DEVELOPMENT

RESEARCH You May Have Missed

UNIVERSITY OF CALIFORNIA
Fall 2009

RESEARCH YOU MAY HAVE MISSED . . . provides brief summaries of recent research relevant to youth development practice. It is designed to help youth development professionals keep up-to-date with contemporary research.

Editor's Note: The subject for the following research articles is motivation - its various forms and how its development can be supported or hindered. One purpose for selecting these articles was to learn more about those factors that can influence a child's interest and about how interests are developed. A central focus was to learn how those factors affect a youth's academic and personal achievement.

■ Bissell-Havran, J.M., & Loken, E. (2009).
The role of friends in early adolescents' academic self-competence and intrinsic value for math and English.
Journal of Youth and Adolescence, 38, 41-50.

This study of 227 eighth graders in a rural, mid-Atlantic middle school examined the influence of peer motivation and support levels on one's own achievement motivation. Peers are an important group during adolescence, and peers provide significant levels of support. Previous research has indicated that youth often select similar individuals as friends. In the study, youth identified up to ten friends and other indicators of friendship closeness such as time spent together and peer pressure, as well as information about their own self-perceived academic capability and their perceptions of their friends' levels of academic motivation. 207 of the youth named at least one friend and thus were included in the study. Youth were asked how much they, and how much their friends, like English and math (Likert scales were used). Youth self-reports of academic competence correlated with their friends' self-reports, more closely for English than for math. Subject and friend reports also tended to be more similar in relationships that were perceived as more supportive. Youth reported that their friends liked both English and math significantly less than the friends actually self-reported. The young people's perceptions of their friends' academic motivation correlated more strongly with self-reports than did the friends' actual reports. This suggests that students may overestimate friend similarity. These findings are parallel to findings about youth perceptions of peer smoking and drinking; youth tend to report higher levels of substance use among friends than are actually true. These results suggest that interactions with peers are important components to understanding academic motivation.
–KH

■ Davidson, J., Isom, A., Mitchell, A., et al. (2007).
Pumped: Motivation as the foundation for learning, a review of research literature on motivation and who is responsible for it.
Asian Social Science, 3(11), 128-131.

This review of motivation literature states that "Motivation is the foundation for learning." Motivation may be either intrinsic or extrinsic. Intrinsic motivation can be undermined by external forces, such as gold stars for achievement. Rewards do not have an impact on youth who are intrinsically motivated. Interesting and challenging activities that are personally meaningful help to develop intrinsic motivation. Inquiry based learning that incorporates group work and discovery also helps to motivate learners. Motivation is affected by

adults, including parents, teachers, and other adults with whom the student has a relationship. Parents with high expectations but a positive attitude tend to have more motivated children. A caring and respectful teacher-student relationship can create student motivation. Having a choice of positive extracurricular activities also improves motivation in the classroom. Behavior of school administrators can also influence teacher motivation, which in turn can influence student motivation; when teachers feel that they have a voice in decision making they feel more motivated. These findings show that there are several layers of influence when it comes to student motivation. Youth may motivate themselves, and parents, teachers, and other caring adults also have an influence over student motivation. ***–KH***

- Dweck, C. (2007).
  The perils and promises of praise.
  Education Leadership, 34-39.

In this article the author describes the findings from thirty years of experiments on student motivation, specifically with regard to two different types of attitudes called fixed mind-set and growth mind-set. Students who have a fixed mind-set believe that intelligence is innate and that having to work hard actually indicates inferior intellectual capacity, while students who have a growth mind-set believe that their intellectual ability is something they can develop through effort and education. Those who show a fixed mind-set tend to be less eager to take on challenges, since they are more vulnerable to facing the risk of failure, while those who have a growth mind-set are eager to take on new challenges and feel exhilarated from the success that their efforts bring. Experimental studies among 5th grade students showed that praise that highlights innate intelligence, such as "You are so smart at these problems" creates a fixed mind-set, while praise that highlights efforts such as, "It's great that you worked so hard at this" creates a growth mind-set. In line with the earlier experiments, the group of 5th graders who developed a fixed mind-set lost motivation when the problem became harder, and then did poorer when the problem became easier, since they had lost their confidence. A greater majority of those who had developed a fixed mind-set also lied about their final scores, compared to those in the growth mind-set. The author goes on to describe an intervention based on these findings where 7th graders in an experimental group participated in a workshop that explained that the brain was like a muscle and students could grow their intellectual ability if they wanted to. In the control group, 7th graders were only taught time management and other learning skills. The experimental group's scores in math went up significantly after the workshop, indicating that the intervention was successful in creating a growth mind-set in the classroom. Dweck's research and intervention has implications for all educators, both formal and non-formal who are interested in promoting a generation of learners that believe in their capacity to enhance their own intellectual ability and performance. ***–AS***

- Gottfried, A.E., Marcoulides, G.A., Gottfried, A.W., Oliver, P.H., & Wright Guerin, D. (2007).
  Multivariate latent change modeling of developmental decline in academic intrinsic math motivation and achievement: Childhood through adolescence.
  International Journal of Behavioral Development, 31(4), 317-327.

Research has indicated that across childhood through adolescence there exists a significant decline in academic motivation, including academic intrinsic motivation. Academic intrinsic motivation reflects an enjoyment of school learning, including wanting to master the subject matter, being curious about and persistent in completing tasks, and learning challenging, difficult, and novel tasks. High academic intrinsic motivation has been found to contribute to school competence, greater academic achievement, lower academic anxiety and less extrinsic motivation. The goals of this study were two-pronged. Through the Fullerton Longitudinal Study, a long-term investigation that began in 1979 with 130 children, the authors have investigated the sources of math motivation and achievement. Earlier research in the FLS has revealed a decline in intrinsic math motivation and math achievement from childhood through adolescence. One purpose of this study was to examine whether math achievement is a significant contributor to the developmental decline in intrinsic math motivation. An additional focus of this article was the use of a multivariate longitudinal model, which would provide a method for analyzing longitudinal data. All of the 114 participants in the study had been part of the FLS since age 5, although many had moved from the original area and now lived in various states and other countries while

still participating in the longitudinal study. The results indicated that there were significant changes in both math motivation and achievement from ages 9 to 17, and that math achievement is a significant contributor to the developmental decrease in intrinsic math motivation from childhood through adolescence. The authors found that children's level of math achievement at age 9 is a significant factor for their level of math achievement and motivation at age 17. This may indicate that poorer initial levels of math achievement place students at risk for long-term declines in both math achievement and motivation. The authors found more variability in levels of achievement and motivation at the younger ages and less variability at the oldest ages, which may reflect a general openness to all subject areas at younger ages, but with ensuing success or limited success in a particular subject area, a focus on those areas where there has been more success. These interests very likely influence students' choices of high school courses, college majors and career paths. The study is valuable when considering the impact nonschool activities may have at the elementary school age, on developing interests and motivation for learning about math and other science related subjects. ***–RC***

- Guay, F., Ratelle, C.F., & Chanal, J. (2008).
  Optimal learning in optimal contexts: The role of self-determination in education.
  Canadian Psychology, 49(3), 233-240.

Self-determination theory is a theory of human motivation that addresses a range of issues such as personality development, self-regulation, life goals and well-being. A central distinction of self-determination theory (SDT) is between autonomous motivation and controlled motivation. Autonomous motivation is what results when someone derives pleasure in what they are doing, is encouraged for performing the activity, and performs the activity because it has value to them. The intrinsic motivation that results from that activity is said to be autonomous in that it is not based on an external contingency such as a reward or punishment. Controlled motivation is a result of feeling pressured to behave, feel or think in a particular way. The present paper is a literature review of education studies that have focused on how SDT has helped to explain underlying motivations in the learning process. The authors discuss factors that are important for encouraging autonomous motivation and for helping students thrive in school. Autonomous motivation has been found to be positively associated with persistence in school, increased retention and depth of learning. Students with autonomous motivation have been found to take more challenging coursework and be involved in challenging activities. Controlled motivation may undermine creativity in students. Autonomous motivation has been found to be positively related with academic achievement. Students are more likely to perform better if they are involved in educational activities for pleasure or because they are important to the student. Also highlighted is the significant influence parents and teachers have on the development of autonomous motivation in children. Parental autonomy support and autonomy supportive teaching styles both contribute to the development and internalizing of autonomous motivation. The studies reviewed in this article highlight the importance of supporting the development of autonomous motivation in youth in any educational setting. Encouraging youth to be involved in activities they like and are important to them will contribute to their academic achievement, feelings of confidence and positive self-worth, and overall educational success. ***–RC***

- Ntoumanis, N., Barkoukis, V., & Thogerse-Ntoumani, C. (2009).
  Developmental trajectories of motivation in physical education: Course, demographic differences, and antecedents.
  Journal of Educational Psychology, 101(3), 717-728.

Increasing motivation to participate in physical education class may improve health for young people. Motivation for physical activity typically begins to decline around age 12 to 13. Self-determination theory helps explain motivation in physical education. Extrinsic motivations in PE include rewards, punishment, guilt or shame, and performing actions because one believes them to be valuable even if one does not enjoy them. In addition to extrinsic and intrinsic motivations, social and contextual factors influence students' PE motivation. This study repeatedly surveyed 394 youth over three years in five junior high schools in Greece (ages 13-15) to examine motivation according to self-determination theory. Youth were

asked how much they agree or disagree with statements such as "I participate in PE because it is fun" (intrinsic motivation), because they "want to improve in sports" (identified regulation), "so that the teachers won't yell at me" (external regulation), and "I can't see what I am getting out of PE" (amotivation). Adaptive motivation decreased over time, while maladaptive motivations increased. These results are consistent with other research showing decreases in adaptive motivation over time in early adolescence. Girls reported more satisfaction with peer relationships (relatedness need) than boys, and students who participated in sports outside of school reported greater feelings of competence than other students. This study provided new insights into change in specific forms of motivation for physical education over a longitudinal period in early adolescence. ***–KH***

- Tenenbaum, H.R., Porche, M.V., Snow, C.E., Tabors, P. & Ross, S. (2007).
  Maternal and child predictors of low-income children's educational attainment.
  Journal of Applied Developmental Psychology, 28, 227-238.

Although many low-income youth do graduate from high school and continue their education in college, a large percentage (approximately 22%) of low-income youth do not complete high school. The factors contributing to low-income youths' educational motivation was a focus of this study. Individual and family factors (i.e., mother's education and family income) were considered predictors of low-income adolescents' decisions to complete high school and continue to college, or to drop out of high school. In addition to demographic factors' affects on educational achievement, other research has found that how mothers talk with their children can influence a child's self-esteem and affects early school success. In the present study, the authors focused on mother-child conversations, when children were preadolescents, and measured the encouragement and emotional support with regard to decisions children make concerning their friendships and homework to see if parent encouragement or non-encouragement of autonomy in decision-making would predict their child's education decisions in late adolescence, or would affect their child's internal motivation. There were 44 youth who participated in this study. They were part of a larger, longitudinal study investigating literacy development. Home observations and assessments took place at ages four and five, and in the second, fifth and seventh grades. Family visits when the children were in seventh grade included a discussion between mother and child about decisions regarding homework and friendships. Results indicated that most youth (39%) completed high school, 32% enrolled in college, and 30% dropped out of high school. Mother-child decisions during discussions about friends, whether mothers either encouraged or discouraged their child's autonomy in choosing who they wanted to hang out with, predicted later educational decisions, with more autonomous-encouraging discussion being positively associated with higher educational attainment. Mother's use of emotionally supportive speech was also positively related to their child staying in school longer. Intrinsic motivation was not related to children's decisions, mother-child decision making or mother's emotionally enabling speech. The authors speculate that the timing of the measuring of intrinsic motivation, e.g., if measured in high school instead of seventh grade, a positive relationship between intrinsic motivation and educational decisions may have resulted. The study supports the need to encourage low-income mothers to provide emotional support and encourage the development of autonomy in their children as one means for educational success. ***–RC***

- Waeytons, K., Lens, W., Vandenberghe, R. (2002).
  Learning to learn: Teachers' conceptions of their supporting role.
  Learning and Instruction, 12, 305-322.

This article brings attention to the phrase, "learning to learn" - a phrase that is popularly used as a desirable component in modern day learning contexts. While the research in this area has indicated that 'learning to learn' needs to be embedded in the curriculum, rather than taught as a separate component, few studies have addressed how this actually looks in practice, and more centrally, how teachers conceive of the notion. The authors hypothesized that teachers would fall into two camps - a narrow view of learning to learn and a broad view. In the narrow view, teachers would see learning to learn as specific techniques and skills that are meant to support specific learning. In the broad view teachers would emphasize learning to learn as teaching students

to use higher order cognitive skills, and be concerned with facilitating a new relationship between the learner and the learned material that could be transferred across other contexts. In their qualitative analysis of 53 Dutch middle school teachers, the authors found the following characteristics that described narrow view vs. broad view of learning to learn. In the narrow view, teachers described that learning to learn was not an end goal in and of itself; the curriculum took all their time and it was not possible to integrate learning to learn. Learning to learn was used for poorer students, for those that had difficulty learning the subject matter, or for younger students (7th and 8th grade) and not older (high school) students. Teachers saw students as passive recipients of learning and tended to control their learning process, such as telling them what was most important to focus on or sharing with them the relationships between different subjects, rather than asking students to discover it for themselves. They believed their role was to transmit information. In the broader view, learning to learn was considered integral to the learning process and sometimes even more important than simply transferring information, since students could get this information from other sources. Learning to learn was important for all learners, both young and older. Teachers integrated learning to learn in their lessons by allowing students a lot of autonomy in developing their schemes as well as expecting them to discover learning methods that worked the best for them. This article clarifies the different ways in which 'learning to learn' may be conceptualized by educators and consequently encourages teachers to move towards a broader conception that manifests in constructivist practices and a collaborative relationship with the learner. ***–AS***

Book Reviews . . .

on topics relevant to youth development will be periodically published. We encourage submissions for future editions. Reviews may be sent to Ramona Carlos (rmcarlos@ucdavis.edu).

The capsule reviews were written by

- Academic Coordinator Ramona Carlos, M.S. (RC)
- Specialist in AES Katherine Heck, MPH (KH)
- Assistant Project Scientist Aarti Subramaniam, Ph.D. (AS)

Reprints of articles reviewed may be obtained by contacting the 4-H Center for Youth Development at (530) 754-8433.

4-H CYD CENTER FOR YOUTH

RESEARCH You May Have Missed

- **Sharon Junge**, Interim Director
- **Ramona Carlos**, Editor
- **Carrie Matthews**, Publications Coordinator

4-H Center for Youth Development
Dept. of Human and Community Development
University of California
One Shields Avenue/3325 Hart Hall
Davis, CA 95616-8523

Phone (530) 754-8433
Fax (530) 754-8440
http://fourhcyd.ucdavis.edu