Abstracts of Motivation Research Articles

This document contains 53 abstracts of research studies that include constructs related to motivation. These abstracts are not intended to represent all motivation research or even quality motivation research. They were written by students in a graduate-level motivation course at Virginia Tech and are provided here with their permission. You might want to use the "find" feature to search for your areas of interest.

ABSTRACT by Laura Lester

Article Information. Scharlach, T. D. (2008). These kids just aren't motivated to read: The influence of preservice teachers' beliefs on their expectations, instruction, and evaluation of struggling readers. *Literacy Research and Instruction, 47,* 158-173.

Motivation Keywords: self-efficacy, expectations, teacher beliefs

1. Why this article is interesting. This article is interesting to me because the focus was pre-service teachers' beliefs of their ability to teach struggling readers and teaching reading is the focus of my doctoral study.
2. Background. Researchers have argued that the choices people make are based on their beliefs. The decisions of teachers can influence their students and have a significant effect on their learning experiences. The rationale for this study was that teacher's choices are influenced by their beliefs, which can then influence student learning and choices.
3. Purpose. The purpose of this study was to examine pre-service teachers' beliefs of their ability to teach struggling readers and their beliefs influenced their expectations, instruction, and evaluations of struggling readers.
4. Method. This qualitative research study consisted of six case studies of preservice teachers employed as tutors. Over a five month period, they were asked to describe their beliefs on teaching struggling readers through several methods data collection: background information sheets, autobiographies, interviews, observations of tutoring sessions, and written expectations and evaluation of struggling readers. A cross case analysis was used and categories, themes and patterns were found and tested for alternate explanations. All data were subjected to data reduction and the patterns which emerged were used in a descriptive narrative. Based on the data analysis, several research questions were answered: What are preservice teachers' beliefs about teaching reading in general and teaching struggling readers in particular?; How do preservice teachers' beliefs influence their expectations for struggling readers?; How do preservice teachers' beliefs influence their instruction for struggling readers?; How do preservice teachers' beliefs influence their evaluation of struggling readers?
5. Results. The results indicate several common beliefs of the preservice teachers: parental involvement was important for reading acquisition, children learn to read when they are developmentally ready, and children learn through exposure to print. They also agreed that socioeconomic status, poor behavior, or having a reading disability could hinder reading acquisition. They viewed the responsibility for teaching struggling readers as that of the classroom teacher, resource teacher, parents, or the struggling reader. Two preservice teachers felt they could teach all students, four felt they could teach the majority, and none felt they could teach all struggling readers or children with reading disabilities.
6. Conclusions. The majority of preservice teachers did not believe they were responsible for teaching all of their students to learn to read; therefore, they had low self-efficacy and low expectations for the tutoring sessions. Instruction was impacted in that they did not take responsibility for student progress or lack of. Student learning was impacted as excessive support was provided, creating passive learners. In contrast, preservice teachers who did believe they were responsible for teaching all of their students had higher self-efficacy and expectations. They accepted responsibility for all students whether or not they made progress, provided support, and promoted engaged learning during tutoring sessions. All preservice teachers attributed reading struggles to lack of motivation and behavior.

ABSTRACT by Cory Epler

Article Information. Ng, W., Nicholas, H., & Williams, A. (2009). School experience influence on pre-service teachers' evolving beliefs about effective teaching. *Teaching and Teacher Education, 26*(2), 278-289.

Motivation Keywords: self-efficacy

1. Why this article is interesting. This article addresses the need for teacher educators to help pre-service teachers better understand their epistemological beliefs in order to promote learning and their development into critically reflective educators.
2. Background. Teacher preparation programs are becoming increasingly diverse. Today's pre-service teachers enter their formal training with a variety of experiences and beliefs that ultimately affect their perception of teaching and of themselves as teachers. Constructivist theory notes that pre-service teachers enter teacher preparation programs with a well-established set of beliefs that are often resistant to change. While these beliefs are central to teacher development, it is often difficult to change them during the training program. Therefore, teacher beliefs should be addressed in teacher preparation programs. These beliefs include perceptions about what makes good teaching and self-perceptions of one's ability to be a good teacher. Engaging teaching beliefs along with knowing and learning (or epistemological beliefs) can help teacher educators improve the teaching and learning of pre-service teachers.
3. Purpose. The research objectives for the study included an examination of the impact school placement experiences have on pre-service teacher's beliefs about good teaching and the impact those placement experiences have on teacher self-efficacy.
4. Method. The results reflect completed questionnaires from thirty-seven pre-service teachers in a teacher preparation program in Australia. The questionnaires were administered four times over the course the preparation program. All questionnaires contained Likert-style statements about the characteristics of good teaching and personal beliefs about good teaching. Efficacy beliefs were elicited through open-ended statements that asked the pre-service teachers to describe their strengths as a teacher. Data from the Likert-style questions were entered into SPSS. Independent t-tests were used to analyze gender differences and age groups, ANOVA was used to analyze and compare Likert responses, and factor analysis was used for all 22 statements about 'what makes a good teacher.' Finally, open-ended responses were analyzed qualitatively. The responses were coded and categorized according to themes.
5. Results. The results suggest that pre-service teacher's experiences can change their belief structures. However, certain elements of their epistemological beliefs remained the same throughout their pre-service experiences. The researchers agree that beliefs can change, even though some beliefs held by pre-service teachers are more resistant to change. The results suggest that teacher preparation programs can utilize experience to increase teaching efficacy of pre-service teachers.
6. Conclusions. It can be implied that teacher preparation programs use the epistemological beliefs of their pre-service teachers to promote teacher efficacy throughout the program. Additionally, the research suggests that teacher efficacy should be a central component of teacher preparation programs, and teacher educators should connect pre-service teacher's beliefs about their teaching with their learning needs.

ABSTRACT by Stephen Biscotte

Article Information. Sungur, S., & Tekkaya, C. (2006). Effects of problem based learning and traditional instruction on self-regulated learning. *Journal of Educational Research, 99*(5), 307-317.

Motivation Keywords: value (interest, importance, usefulness), goal orientation

1. Why this article is interesting. This is a neat, clean empirical study of the effects on motivation, intrinsic and extrinsic, of problem-based learning compared to traditional teaching practices in a tenth grade biology classroom.
2. Background. There has been an educational paradigm shift from teacher-centered to student-centered practices in educational research and theory over the past 30 years. According to the literature, the authors found that problem-based learning (PBL) has a positive affect on knowledge transfer, critical thinking, teamwork, interest in the material, and the ability to use the scientific method to solve an ill-structured problem. The authors wanted to explore the effects of this student-centered approach on student self-regulation which includes metacognitive, motivational, and behavioral participation in their learning, since the literature is lacking empirical evidence on the topic.
3. Purpose. The authors wanted to empirically test the effect of problem-based learning on student self-reported motivation and their self-reported use of learning strategies as well as to identify whether there is a relationship between these two.
4. Method. The authors used a quasi-experimental design where a control class, treated with traditional practices, and an experimental class, treated with PBL practices, covered two human body systems. The teacher used lecture, the textbook, and teacher-guided discussions as primary methods in the traditional classroom. In the PBL class, the teacher provided groups with different real medical patient case studies to try to solve over the course of the unit. The students researched, hypothesized, gathered data, and presented findings. Sixty-one Turkish high school students participated in the classes taught by the same teacher. The students then self-reported on their self-regulation using the MSLQ, with scores analyzed through MANOVAs.
5. Results. PBL students had higher levels of intrinsic goal orientation, task value, use of elaboration learning strategies, critical thinking, metacognitive self-regulation, effort regulation and peer learning compared with the control class. In regards to the relationship between motivation and use of learning strategies, the results revealed that higher levels of intrinsic goal orientation and task value correlated with all of the learning strategies. Overall, student motivation is positively correlated with self-regulation strategies.
6. Conclusions. The students who received PBL instruction were more likely to participate for the challenge, to satisfy curiosity, or to achieve mastery compared to the control class. The PBL students also found biology more interesting, important, and useful, supporting the literature that suggest biology teachers should incorporate PBL practices to increase student self-regulation. PBL students used paraphrasing, summarizing and note-taking, applied previous knowledge to new situations, and planned and self-monitored more often than the control class. The PBL students also saw greater importance in peer cooperation and recognized this process as critical to revising ideas and recognizing deficiencies. Lastly, the pre-presentations and student reports further assisted students in monitoring their learning, evaluating themselves, and setting goals, all self-regulatory practices

ABSTRACT by Joseph L. Salmon

Article Information. Tachannen-Moran, M., & Barr, M. (2004). Fostering student learning: The relationship of collective teacher efficacy and student achievement. *Leadership and Policy in Schools, 3*(3), 189-209.

Motivation Keywords: collective teacher efficacy

1. Why this article is interesting. This article discusses the relationships among the constructs of *Collective Teacher Efficacy*, socio-economic-status, and student achievement which provides information, support, and data for my dissertation topic which loosely examines the affects of instructional coaches on these concepts.
2. Background. A review of the literature on *Collective Teacher Efficacy* (CTE) states the importance of this construct by underscoring the assertion that the success of schools depend on CTE. Schools that have high CTE believe that they are responsible for the success of their students, in contrast, schools with low CTE attribute success or failure on variables such as family background or ability. The rationale for the study is that there have been many studies on the relationship between individual teacher efficacy and student achievement but few on collective teacher efficacy and student achievement.
3. Purpose. The purpose of this study was to determine whether or not CTE had a significant effect on the achievement of middle schools students in the Commonwealth of Virginia. The hypothesis was that "there would be a positive relationship between collective teacher efficacy and student achievement, and that this relationship would hold even when controlling for the socio-economic-status (SES) of the school" (p. 197).
4. Method. Subjects were sampled from 66 middle schools in Virginia. The *Collective Teacher Belief Scale* was used to collect teacher belief data, and the Virginia SOL mathematics, writing, and reading tests were used to collect student achievement data. SES of the schools was measured by the percentage of students receiving free and reduces lunches. The teacher surveys were given at faculty meetings, SES was determined from the Virginia Department of Education website, and the SOL data was provided from the Virginia Department of Education. A multiple regression analysis provided analysis for the combined and independent effects of CTE and SES on student achievement.
5. Results. Combined significance was found for SES and CTE and their effects on student achievement on SOL math, writing, and reading tests, and independently, SES and student achievement; however, the only assessment that CTE significantly affected independently was the SOL writing test.
6. Conclusions. Results indicate that CES independently affected the writing assessment. Reasons given were that possibly teachers had received more training in this area because of the emphasis that the Commonwealth of Virginia has placed on this subject and the amount of professional development that has been provided in this area. This suggests that schools should seek out ways of increasing teacher efficacy and that attention to subject areas with effective staff development may be one method of accomplishing this. These researchers suggest that variables such as "school climate, principal leadership behaviors, staff development, [and] teacher training programs" (p.206) may provide methods for enhancement of CTE. For my dissertation, this leads me to examine whether or not instructional coaches affect CTE through effective staff development.

ABSTRACT by Luka Ngoyi

Article Information. Cinkara, E., & Tilfarlioglu, F. T. (2009). Self-efficacy in EFL: Differences among proficiency groups and relationship with success. *Novitas-ROYAL, 3*(2), 129-142.

Motivation Keywords: self-efficacy

1. Why the article is interesting. The article is interesting because it was studying the self-efficacy of students when studying English as a foreign language at Gaziantep University's School of Foreign Languages (GUSFL) in Turkey, a country that doesn't use English as a medium of instruction.
2. Background. There have been numerous studies in the field of English language teaching dealing with the psychological aspects of learning, such as: motivation, anxiety and self-beliefs. Various researchers have shown that both motivation (Clement et al. 1994; Gardner and McIntyre, 1993) and anxiety (Horwitz et al. 1986) are key factors in second language acquisition and affectivity. These studies inquire how and why students approach different tasks in different ways. The studies in these fields are growing in quantity and quality as the psychological factors, such as learner beliefs, perceptions, and motivation are considered as key elements in learning.
3. Purpose. The major purpose of this study was to determine English language learning self-efficacy levels of preparatory class students at the GUSFL and correlate the results with their language proficiency levels. The results of the correlating statistics will reveal the relationship between self-efficacy and EFL success, as various researchers have predicted .
4. Method. This study was investigating whether students' EFL self-efficacy levels have a relationship with their EFL success. A pilot study was conducted to see how well the questionnaire was adapted and how much time was needed to fill it out. The data collected using English as a Foreign Language Self-Efficacy Questionnaire (EFL-SEQ). The questionnaire was administered to the students at GUSFL in the spring semester of 2007/2008 academic year. They were handed out to students during regular class hours in their classrooms. The administration of GUSFL was informed about the study and permission was granted. The researcher visited three groups in each proficiency level, namely pre-intermediate, intermediate, and upper-intermediate. They were each given practical information on the nature and the objectives of the study. The students were also told that they had the choice not to fill out the questionnaires or to quit any time they wanted. It was done anonymously.

There were 175 students in this study. The students were placed into three proficiency level groups (pre-intermediate, intermediate, and upper-intermediate); and in each proficiency group they were placed into classrooms with 20 students. Nine groups of students (three groups in each proficiency level) were chosen on the basis of cluster random sampling from three proficiency levels and 30 classrooms. The students' ages varied from 19 to 25 years. In terms of gender, 115 of the participants were male students and 60 of them were females.
5. Results. The findings for the first research question have disclosed the students' EFL self-efficacy levels and the difference among three proficiency level groups. The analysis to reveal the students' EFL self-efficacy level has pointed out that they have a higher level of self-efficacy beliefs in learning English when compared to the findings of Aliegro (2006).
6. Conclusions. The above mentioned review and results make it clear that self-efficacy theory is cardinal for explaining many aspects of student achievement. The participants were chosen using cluster random sampling. This had slightly affected the results. In future studies, a random sampling method, instead of a cluster random sampling, needs be used. Also needed were other universities in different parts of Turkey.

ABSTRACT by Lee Rakes

Article Information. Brinthaupt, T., & Shin, C. (2001). The relationship of academic cramming to flow experience. *College Student Journal*, *35*(3), 457-471.

Motivation Keywords: flow

1. Why this article is interesting. This article is interesting because it offers the experience of flow as a potential explanation for academic "cramming."
2. Background. Procrastination and cramming are typically loathed by educators, as this type of learning behavior is thought to produce superficial memorization and not deep understanding of material provided by the professor or instructor. The authors acknowledge the potential detriments such behaviors potentially hold (e.g., increased stress levels). On the other hand the authors speculate students may engage in such behaviors because they bring about desired states of affect, such as flow. Explanations for procrastination or cramming may stem from the inherent boredom and monotony course materials may afford, making waiting to begin studying more challenging and interesting.
3. Purpose. The authors hypothesized that experiencing flow would be more likely for crammers than non-crammers, thus providing a different perspective from which to consider why students engage in such behaviors.
4. Method. Participants included 161 undergraduates enrolled in an undergraduate psychology course at a large southeastern university. There were two major components to this study, the first of which used self-report measures in the assessment of student study habits and general flow experiences. The second component involved a simulation in which participants were subjected to a mock cramming session and then administered the Flow State Scale.
5. Results. A two-way ANOVA (cramming status X study neglect status) indicated a significant effect of cramming status on flow state score, $F(1,157) = 4.28$, $p < .05$, and a marginally significant effect of cramming status on test score, $F(1,157) = 3.48$, $p < .07$. T-tests indicated students were relatively unfamiliar with the reading material $t(160) = 15.90$, $p < .001$, they perceived it as moderately difficult $t(160) = 6.22$, $p < .001$, and they rated the simulation as between "a little bit similar" and "moderately similar" to non-simulated cramming behavior $t(160) = 6.85$, $p < .001$.

The data indicated several relationships between variables. Frequency of cramming during the current semester was positively correlated with general preference for cramming, $r(159) = .43$, $p< .001$, cramming by choice, $r(159) = .54$, $p< .001$, cramming by necessity, $r(159) = .21$, $p < .01$, and last-minute cramming, $r(159) = .42$, $p < .001$. Cramming frequency was shown to be negatively correlated, with giving oneself enough time to study, $r(159) = -.34$, $p < .001$, and overall satisfaction with study habits, $r(159) = -.20$, $p < .01$. Students who reported a greater frequency of flow also reported more satisfaction with study habits, $r(159) = .23$, $p < .005$.
6. Conclusions. The data support the researchers' hypothesis that positive effects of cramming may lead to positive states of affect, namely flow. Self-reported crammers performed better in the simulation and reported a greater amount of flow-like experiences during the simulation. Importantly, self-reported procrastinators were not as likely to experience flow during the task as were non-procrastinators. Indeed, the data indicated a positive correlation between procrastination and cramming, yet their relationships to flow were opposite. The authors infer that crammers may engage in such behavior to make academic tasks more challenging and engaging, which are key ingredients to experiencing flow. Procrastinators, however, may engage in such behaviors due to a lack of intrinsic interest in certain academic tasks. Under such conditions flow is less likely, especially if the task is perceived as stressful or burdensome.

ABSTRACT by Krista Landon

Article Information. Stone, J. & Sjomeling M. & Lynch, C. & Darley, J. (1999). Stereotype threat effects on black and white athletic performance. *Journal of Personality and Social Psychology, 77*(6), 1213-1227.

Motivation Keywords: self-worth, stereotype threat

1. Why this article is interesting. This article is interesting because it focuses on the theory of stereotype threat and examines how white college athletes along with black college athletes self worth and performance are negatively impacted by the presence of stereotype threats.
2. Background. There is plenty of research showing how minority groups such as women and black athletes' performance and self worth are affected by negative stereotypes. However the rationale for this study being conducted was to determine if white college athletes also experience concern and/or suffer distress when facing negative stereotypes, based on the theory of stereotype threat.
3. Purpose. The researchers' hypothesis was guided by the belief that participants in an athletic sport hold negative racial stereotypes about athletes, which can threaten the overall self worth and performance of athletes. However, with this hypothesis the researchers are assuming that people hold racial stereotypes and that the presence of negative stereotypes negatively impact both white and black athletic performance.
4. Method. In their first experiment a 2 (race: black or white) x 4 (test frame: natural athletic ability, sports intelligence, race prime or no control) experimental design, performance questionnaire, and a standardized measure of athletic performance based on the game of golf was used. Performance was measured by how many strokes it took to complete a 10-hole golf course. In their second experiment the experimenters tested the reliability of the stereotype threat effect on White participants and addressed questions that arose from experiment one. Experiment 2 addressed issues such as performance anxiety, and alternative interpretations of the performance differences observed by experiment one. In experiment 2 White participants engaged in a golf game of either high-threat or low-threat. The second experiment was a 2 (chronic athletic disengagement: engaged vs. disengaged) x 2 (test frame: high threat vs. low threat) x 2 (misattribution: high vs. low), where performance on the golf test was the primary measure and double blind procedures were used. After experiment one was conducted analysis of variance (ANOVA) was conducted to determine the effects of stereotypes along with MANOVA. Experiment two also used analysis of variance (ANOVA) to address and sharpen some of the results concluded by experiment one.
5. Results. The simple interaction effect between race and natural athletic ability, sports intelligence, and race prime conditions was significant, $F(1, 72) = 7.15$, $p < .001$. This finding suggested that, among black participants, performance was significantly better when test frame was measured on natural athletic ability ($M = 23.10$), compared to sports intelligence ($M = 27.20$). Performance in the sports intelligence and race-prime conditions did not differ significantly ($F < 1$). Among Black participants when the test was framed as sports intelligence or when race was primed was significantly worse compared with the no-prime group control group using Dunnett's two tailed t-test $t(72) = 2.45$, $p < .05$. When the test frame was natural athletic ability, White participants' performed significantly worse on the golf task ($M = 27.80$) compared to the task being framed as sports intelligence ($M = 23.30$).
6. Conclusions. Based on the findings of this experiment the presence of stereotype threat in context of athletic performance can negatively affect the performance of both Black and White athletes. Black participants were negatively affected by the stereotype of having less sports intelligence than that of White participants, while White participants were negatively affected by the stereotype of natural athletic ability.

ABSTRACT by Lauren Bryant

Article Information. Okeke, N., Howard, L., Kurtz-Costes, B., & Rowley, S. (2009). Academic race stereotypes, academic self-concept, and racial centrality in African American youth. *Journal of Black Psychology, 35*(3), 366-387.

Motivation Keywords: self-concept

1. Why this article is interesting. This article hypothesizes that academic race stereotypes will impact the academic self-concepts of students with high racial centrality, i.e., for whom race is more central to their identity.
2. Background. Research on stereotype threat has demonstrated the fact that race stereotypes can have a negative effect on students' academic performance. Research has also shown that positive self-beliefs about academic abilities lead to better performance in African American students. Therefore, it would make sense that awareness of negative academic race stereotypes would lead to a more negative academic self-concept. However, previous research has found few differences between African Americans and Whites with regard to academic self-concept.
3. Purpose. The researchers hypothesize that this difference would only be found in students with high racial centrality, since these students are the most likely to internalize the negative stereotypes regarding their race.
4. Method. Two studies are used to test this hypothesis. For study 1, African American seventh and eighth graders were given self-report questionnaires assessing academic race stereotype endorsement, academic self-concept, and racial centrality. Academic race stereotype endorsement was measured using visual analogue scales: the students were asked to mark on a 100 millimeter line how well African American and White students perform in the different academic domains. The distance between the marks for African American and White students was measured to determine the strength of the stereotype endorsement. Academic self-concept was measured by having students circle one of 25 stick figures for several academic domains. Lower numbers indicated a lower self-concept. Racial centrality was measured using a subscale of the Multidimensional Inventory of Black Identity.
5. Results. Results showed that high racial centrality led to endorsement of negative stereotypes and a low academic self-concept because these students were more likely to endorse negative race stereotypes. Study 2 was used to replicate study 1 and found similar results. The results support the hypothesis that negative stereotypes will have the strongest impact on students with a high racial centrality.
6. Conclusions. The researchers discuss how low racial centrality might be a buffer against low academic self-concept. Previously, racial centrality was assumed to be a buffer against negative outcomes. The researchers argue that, because low racial centrality was related to lower stereotype endorsement, it may actually be a buffer against negative outcomes. It is possible that high racial centrality may be a buffer against discrimination but makes an individual more susceptible to negative stereotypes. The research also demonstrated the importance of measuring racial centrality when investigating stereotype effects. Since the data are cross-sectional, causality with regard to racial centrality and academic self-perception cannot be determine from this study. Longitudinal research is needed to confirm whether or not racial centrality directly impacts academic self-concept. The researchers also suggest that contributions of African Americans be given a more prominent role in school curriculums, as this could help alleviate negative stereotype endorsement.

ABSTRACT by Britta Petrich

Article Information. Chembers, M. M., Hu, L., & Garcia, B. F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology, 93*(1), 55-64.

Motivation Keywords: self-efficacy, expectations

1. Why this article is interesting. The article is interesting to me because I intend to do my dissertation research on first year college students. Additionally, I am a doctoral student in Educational Psychology, and this article was published in the leading journal in the field. By choosing this article, I not only gained a higher understanding of the research that is already being conducted on first year college students, I was also able to develop insights about the type of article that is published in a well respected journal.
2. Background. It should come as no surprise that the first year of college is not only full of change, but also full of potentially stressful situations for young adults. How a first year student copes with the demands of college life, and the level of self-efficacy a student has, might be one avenue to look down when determining how a student achieves academic success during the adjustment period. Previous literature regarding self-efficacy and first year students set the stage for this qualitative study.
3. Purpose. The purpose of this article was to examine "the effects of academic self-efficacy and optimism on students' academic performance, stress, health, and commitment to remain in school" (Chembers, Hu, & Garcia, 2001, p. 55). The authors investigated psychological and social factors that influence college transition according to prior research on this important topic.
4. Method. Two questionnaires were distributed to all first year students at the University of California, Santa Cruz: one during the first week of winter quarter and one in the last weeks of the spring quarter. All together, 1,600 first year students received the packets of questionnaires. The first questionnaire elicited a total of 373 (23%) responses, while the second questionnaire was completed by 256 (69%) of the students. The second questionnaire was only mailed to those students who completed the first questionnaire. Ten items were used to measure (and understand) the psychological and social factors that influence student transition to college: high school GPA, academic self-efficacy, optimism, challenge-threat, academic self-rating, academic evaluation, academic expectations, stress, health, and adjustment.
5. Results. Structural Equation Modeling (SEM) was used to test the hypothesis in this longitudinal study. According to Chembers, Hu, and Garcia (2001), "there were significant and substantial direct effects of self-efficacy on challenge-threat evaluations (standardized coefficient = .27, $p < .001$), academic expectations (standardized coefficient = .28, $p < .001$), and academic performance (standardized coefficient = .34, $p < .001$)" (p. 60). Predictor variables (self-efficacy, optimism, challenge-threat) were used from the first questionnaire to predict outcome variables (performance, stress, health, adjustment) after the second administration.
6. Conclusions. At the conclusion of this article, the authors included a discussion section, which verified that their predictions about self-efficacy were correct. Furthermore, they suggested ideas for future research. For example, it may be useful to test specific behaviors (i.e. study habits, test-taking strategies) of highly efficacious college students to test relationships to academic success. A potential weakness in this study is that the University of California, Santa Cruz differs from a typical university by attracting somewhat less conventional students due to nontraditional approaches to education.

ABSTRACT by Chloe Ruff

Article Information. Graham, A., & Anderson, K. (2008). I have to be three steps ahead: Academically gifted African American male students in an urban high school on the tensions between ethnic and academic identity. *Urban Review: Issues and Ideas in Public Education, 40*(5), 472-499. Doi: 10.1007/s11256-008-008-8

Motivation Keywords: identity, value

1. Why this article is interesting. The researchers have examined how members of a group with a negative academic stereotype are capable of applying values developed within their family and social network to successfully negotiate between their academic identity and their ethnic identity.
2. Background. This study focused on academically gifted African American males in high school. Strong negative stereotypes within American culture suggest that African American students are less capable academically, while social stereotypes suggest that academically successful students are viewed by their peers as “acting White” (p. 473). Numerous studies dating from the 1990s have shown a conflict existing between academic success and perception of ethnic identity for many young African American males. However, several recent studies suggest that high achieving African American males find support for their academic endeavors through their strong ethnic identity.
3. Purpose. The researchers focused their study on three general research questions related to the tension between the students’ academic and ethnic identities. They wanted to know how much the young men valued educational attainment, how much they identified with their ethnic group, and how “significant others” in their life “encouraged or dissuaded” (p. 476) the tension between their academic and ethnic identity.
4. Method. This study was a microethnography involving the case study of three male, high school seniors attending a historically Black high school in North Carolina. All three had taken the SAT and applied for college. The school was considered a “low achieving” school that lagged behind state academic standards. The students were interviewed four times, observed in class three times, and they completed two surveys. The researchers also interviewed the school guidance counselor, the teacher in the classroom that was observed, and one “significant other” that was nominated by the student. A three phase approach was used for data analysis: the data was coded for key words and phrases, these key words were examined for patterns across the data sources, and categories were determined from the patterns that existed across the data sources and themes were developed from these broad categories.
5. Results. Three themes emerged: the value of school and education, importance of Black heritage, and importance of strong relationships within the community. The students were all confident in their academic ability and felt that education was essential to both their long term and short term goals. While all three supported the importance of not conforming to negative stereotypes, they also showed a strong connection to their heritage and drew strength from current and historical role models. All three students also had adults within their social network who connected them to their heritage and challenged the students to succeed.
6. Conclusions. In light of these results, teachers, parents, and community members should make sure that school curriculum includes culturally relevant texts that focus on the successes as well as the struggles of African Americans. They should also provide space for young men to talk with each other and with adults about their challenges and goals.

ABSTRACT by Jennifer Dee Snyder

Article Information. Petrill, S., Deater-Deckard, K., Schatschneider, C., & Davis, C. (2005). Measured environmental influences on early reading: Evidence from an adoption study. *Scientific Studies of Reading*, *9*(3), 237-259.

Motivation Keywords: intrinsic motivation

1. Why this article is interesting. This article was interesting to me because I taught English for eight years in the public school systems, and I believe that environmental influences play a large part in building the intrinsic motivation necessary for students to be early readers.
2. Background. This study provides research on adopted children and their family environments in order to show there is not a genetic influence on reading outcomes. It shows how educationally rich environments will produce better readers who are intrinsically motivated to seek out reading rich environments.
3. Purpose. Through the involvement of 262 children and their families, researches looked at the relationship between environmental processes in non-biologically related family members living in the same home. This purpose of this research was to help improve poor reading skills.
4. Method. There were a few factors that were kept consistent when choosing the participants in this study. Participants were married or cohabitating white couples in the Pennsylvania and Oregon areas. Three-fourths of the parents had a four year degree or higher. Children were genetically unrelated to their parents and other siblings in the home.

Researchers used a **s**tudy questionnaire which examined emotional, educational, and behavioral functioning of the child. The questionnaire also addressed how parents felt toward their children in these areas. Other questions posed included those in which mothers were asked how many books they read in an average month, how many books each child brought home from school each month, and how many hours a week each child was expected to work on homework. Questions also measured the parent's involvement in school work and the child's feelings toward reading and reading related activities.

The second part of the research process was a home visit in which children were assessed on a 90 minute assessment using a short form of the Stanford Binet Intelligence Scale in which they were assessed on the vocabulary, pattern analysis, memory for sentences, memory for digits, and quantitative subtests. Researchers also gave children the letter identification subtest from the Woodcock Reading Mastery Test. Phonological awareness was tested using Robertson and Salter's Phonological Awareness Test. They also assessed Word Identification and Pseudo word Reading using the Word Identification and Word attack subtests from the Woodcock Reading Master Test and receptive vocabulary using the Peabody Picture Vocabulary Test-III.
5. Results. The results showed that there were associations between children's literacy skills, mothers' educational attitudes, mothers' book reading, parental involvement in homework, number of hours child is expected to do homework, and child book reading. This shows that these literacy skills are not caused by the genes that parents and children share. The individual differences in reading outcomes are shown to be associated with aspects of the home environment.
6. Conclusions. This study shows that the environmental interactions in this study show that literacy skills are greatly impacted by a child's environment rather than a gene supported theory. It could also be that more reading-oriented children will look for those reading environments more often than those children who are not as reading oriented. It is important to note that the results of this study do not mean that all genetic influences are not important to reading.

ABSTRACT by Parhum Delgoshaei

Article Information. Hutchison, M. A., Follman, D. K., Sumpter, M. B., & George, M. (2006). Factors influencing the self-efficacy beliefs of first-year engineering students. *Journal of Engineering Education*, January 1.

Motivation Keywords: self-efficacy

1. Why this article is interesting. This is an interesting article since it situates the four sources of self-efficacy beliefs according to Bandura's theory in the context of a freshman engineering course which I have taught for the past four years.
2. Background. A survey was designed and administered to measure students' self-efficacy beliefs in a large (~1400 students) first-engineering course, ENGR 106. The survey included open-ended questions that asked students to list factors impacting their confidence in their ability (self-efficacy) to succeed in the course. They were also asked to rank these factors. The student responses were then categorized and coded using a qualitative data management program. The categories identified in student responses were then linked to the four sources of self-efficacy according to Bandura's theory (mastery experiences, vicarious experiences, social persuasions and physiological states) in the context of their freshman engineering course. Gender based factors that demonstrated themselves in student responses were identified.
3. Purpose. The authors believed that knowledge about student efficacy beliefs will lead to improved insight into how they form such beliefs and how to design learning environments that promote students' self-efficacy beliefs which will eventually result in higher success and retention in engineering programs. Although the authors do not explicitly pose a research question, the paper focuses on the investigation of differences in self-efficacy beliefs between freshman male and female students concerning their first engineering course.
4. Method. The authors have used a phenomenographic approach to study factors that affected the students' confidence in their ability to succeed in the course. The authors point out that from a phenomenographic point of view "there is not a single essence with the experience" of students in the course. Students were first asked to rank the extent to which they agreed with the statement: "I am confident I can succeed in ENGR 106." Following this question, students were asked to briefly describe the factors on which they based their confidence rating. The open-ended survey instrument which was administered as an on-line homework assignment asked students to list up to ten influential factors in their self-efficacy to succeed in the course. Next, the percentage of students citing each factor was computed. During the analysis phase, "purposeful sampling" ensured accurate representation of different ethnic groups. After analyzing the open ended responses using a "qualitative data management program", factors most cited by students impacting their self-efficacy were extracted.
5. Results. The following nine factors were extracted from student responses: understanding or learning the material; drive or motivation toward success; teaming issues; computing abilities; the availability of help and ability to access it; issues surrounding doing assignments; student problem-solving abilities; enjoyment, interest, and satisfaction associated with the course and its material; and grades earned in the course. There is no statistical significance in the differences between men and women in the factors that they have listed as most significant. Out of these factors, students ranked the following the most as their number one ranking: motivation toward success, understanding/ learning of course material, and computing abilities.
6. Conclusion. The factors that students have listed as the ones that contribute to their confidence that they can succeed in the course can be classified according to Bandura's four sources of self-efficacy. With the exception of drive and motivation, all factors can be classified in one of his four classification of sources. The authors link all of these factors directly or indirectly to mastery experiences, validating its position as the single most influential source of efficacy beliefs.

ABSTRACT by Lauren Johnston

Article Information. Costa-Giomi, E. (2004). Effects of three years of piano instruction on children's academic achievement, school performance, and self-esteem. *Psychology of Music, 32*(2), 139-152.

Motivation Keywords: self-esteem

1. Why this article is interesting. This article was of specific interest to me because the author included self-esteem as one of the areas impacted by formal music instruction on children.
2. Background. Past literature indicated that music may perhaps be an effective intervention in therapy for groups with low self-esteem, and seems to show a positive influence in raising self-esteem. Training in music has also been speculated to enhance performance abilities in academic areas.
3. Purpose. The authors stated that the purpose of the study was "to investigate the effects of piano instruction on children's development," and aimed to answer the question of whether the previously reported non-musical benefits of music instruction exist.
4. Method. Costa-Giomi included 117 fourth-grade students in the study, with control (n = 54) and experimental (n = 63) groups. For three consecutive years, the experimental group participants were given a keyboard to practice with at home, and received weekly individual piano lessons for thirty minutes, at no cost to the participant. Participants were administered the Canadian Achievement Test 2 (CAT2), the Coopersmith Self-Esteem Inventories (long-form), several subtests of the Musical Aptitude Profile, and specific subtests of the Bruininks-Oseretsky Test of Motor Proficiency and Developing Cognitivive Abilities Tests (DCAT) prior to treatment. Parental consent was obtained and report card scores from third to sisth grade for each participant was accessed to track progress. Each year into the study, the tests were readministered, and data was tracked and analyzed.
5. Results. No significant differences could be shown for both academic achievement and school performance. However, using ANOVA analysis with repeated measures the self-esteem scores were compared to the experimental group scores. The school self-esteem scores on the experimental group showed significant increased throughout the three year period while the control group scores tended to decrease. Despite this trend, analysis of "simple effects" showed no significant differences between the two groups.
6. Conclusions: Costa-Giomi concluded that there exist specific benefits with piano instruction and the development of self-esteem. The author cites the longitudinal nature of the study asserts the cause of the differences in self-esteem by the end of the study, when at the beginning of the study there was no difference among the experimental and control group's self-esteem. In examining the report cards of all groups, the author concluded that no academic benefits of piano instruction were present. The author also concluded that the investigation did not show a causal link between formal music instruction and children's academic achievement in math and language, as no significant differences were found between scores of the experimental group and those of the participants who had never participated in music instruction. For future implications, Costa-Giomi stated that being that the findings of this study provide evidence that extended participation in formal music instruction show benefits to participants self-esteem and music skill, that perhaps both musical and non-musical benefits may be long-lasting in effect, and provide a valuable resource in the future.

ABSTRACT by Rebekah Brook

Article Information. Reeve, J., & Deci, E. L. (1996). Elements of the competitive situation that affect intrinsic motivation. *Personality and Social Psychology Bulletin, 22*(1), 24-33.

Motivation Keywords: self-determination, intrinsic motivation, competence, autonomy

1. Why this article is interesting. I found this article interesting as it addresses some of the debate over the role of competition in self-determination and intrinsic motivation.
2. Background. Through cognitive evaluation theory (CET), many social environments have been investigated in terms of their affect on intrinsic motivation. This theory states that intrinsic motivation is based on the organisms needs for competence and self-determination. Early research led to the findings that external events undermine intrinsic motivation because they were controlling. Deci, Betley, Kahle, Abrams, and Porac (1981) explored the effects of competition on intrinsic motivation and found that people in a competitive situation are less likely to engage in the activity outside of competition. However, other studies have found that competition can facilitate intrinsic motivation. This disparity between the theories is the rationale for this research. The authors wanted to try to explain which aspects of competition led to enhanced intrinsic motivation and which aspects led to decreased intrinsic motivation.
3. Purpose. The research questions being investigated are: (1) to test whether competition by itself with no feedback has a significant effect on intrinsic motivation; (2) to test whether the competition outcome (winning versus losing) has a significant effect on outcome; and (3) to test whether interpersonal context moderates the effect on winning (i.e., if the person felt pressured to win does that have an effect on intrinsic motivation. The hypotheses in terms of CET were: (1) The competition set will decrease intrinsic motivation by decreasing participants' perceptions of self-determination; (2) The competitive outcome of winning (versus losing) will increase intrinsic motivation by facilitating competence. Further, competence valuation will interact with competitive outcome in affecting intrinsic motivation and (3) A pressuring interpersonal context will decrease intrinsic motivation through its detrimental effect on participants' perceptions of self-determination.
4. Method. One hundred undergraduate psychology students participated. They were asked to complete puzzles in four minutes. They were told that they were "just to try their best" (no competition), "solve the puzzle faster than the other person" (competition), and "make sure you win" (pressurized). In the no competition and competition no feedback condition participants weren't told who won. In the win, lose, and pressure-to win competitions participants were told if they had won or lost (this information was made up). Each participant was interviewed about their motivation. While waiting to be interviewed participants were left in the room with two new puzzles and the four old puzzles. The amount of play with new and old puzzles was recorded.
5. Results. Winners reported higher interest/enjoyment than losers. Winners tended to play with new puzzles more than losers. Pressured competitors played less with new puzzles than non pressured. Losers tended to play more with old puzzles than winners. Competitors not pressured to win had higher levels of intrinsic motivation than those that were pressured. Winners were more intrinsically motivated than losers.
6. Conclusions. The aspect of the competitive situation that facilitated intrinsic motivation was the positively informational element of winning (in non-controlling contexts) and the aspect that undermined intrinsic motivation was the controlling nature of the pressure to win. For competition to affect intrinsic motivation, performance information must be present. Perceive competence and perceived self-determination are the processes that drive certain aspects of competition to affect intrinsic motivation.

ABSTRACT by Parastoo Mokri

Article Information. Ainley, M., Buckley, S., & Chan, J. (2009). Interest and efficacy beliefs in self-regulated learning: Does the task make a difference. In Wosnitza, M., Karabenick, S., Efklides, A., Nenniger, P. (Eds.) *Contemporary motivation research: From gobal to local perspectives*. Cambridge, MA: Hogrefe Publishing.

Motivation Keywords: self-efficacy, interest

1. Why this article is interesting. This article was interesting to me because it reinforces the belief that efficacy beliefs must be considered in the study of self-regulation and that efficacy beliefs vary across different tasks as the students' estimate of task difficulty should be taken into consideration.
2. Background. The authors argue that interest has been shown to have a powerful effect on cognitive performance and affective experience for students in different domains. They also mention that self-efficacy has been shown to be an important motivational factor in self-regulation. Furthermore, interest and self-efficacy are self-regulatory processes that support learning and research suggests that there is a positive association between them as both lead to increased effort, persistence and positive emotional reactions. The article investigates how these two factors function across a problem task.
3. Purpose. The authors ask the following two research questions: "1- At what point(s) in the self-regulated learning sequence do interest and self-efficacy make a significant contribution?" and "2- Do interactions between interest and self-efficacy vary between subject domains?"
4. Method. A software environment was used that allowed participants to be presented with a problem and relevant resource information. Based on student work through the task, interest, self-efficacy and task difficulty were measured as single items (five-point likert scale with labeling for end points). Self-efficacy was assessed pre-task (how confident they were that they could produce a good answer) and post-task (how confident they were that they had produced a good answer). Also, on-task interest (how the participants were feeling at the moment, from "not at all interested" to "very interested") was recorded at three points (pre-task, mid-task and post-task). Also, perceptions of task difficulty were measured on a likert scale at the beginning of task 1 (study 1) and the beginning and end for task completion for studies 2 and 3 (tasks 2 and 3 respectively).
5. Results. There are a number of ways which interest and self-efficacy function across a problem task (at the beginning, on-task and at the end). These two factors at the begining of the task may combine and contribute to efficacy at the time the task is completed. On-task interest may help to predict self-efficacy at the time of task completion or may be influenced by initial self-efficacy and in turn, impact mastery experiences which are one of the factors that influence on-going efficacy beliefs. When these relations were studied for different tasks, it became clear that students' estimates of task difficulty should be taken into account. When students' estimates of task difficulty were different compared to what they saw when working with the task, at the end of the task, their perceptions of task difficulty were more predictive of how they evaluated their performance at the end.
6. Conclusions. There is a positive relationship between interest and self-efficacy that supports learning. However, the nature of the task and students' perceptions of task difficulty should be taken into account in this relationship.

ABSTRACT by Kevin Sevilla

Article Information. Metcalfe, J., & Mischel, W. (1999). A hot/cool-system analysis of delay of gratification: Dynamics of willpower, *Psychological Review, 106*(1), 3-19.

Motivation Keywords: willpower

1. Why this article is interesting: This article is interesting as it proposes a two-system framework contrasting the "cool" cognitive system with that of a "hot" emotional system to determine enablers and inhibitors of self-control, also known as "willpower."
2. Background: Based in behaviorist traditions, research has supported the idea that "humans are driven by impulses pressing for immediate release, ruled by a pleasure principle, and largely indifferent to reason." Assuming this is the case, then how do humans control their behavior and prevent their hot emotion system from dominating their actions? "The cool system is cognitive, emotionally neutral, and strategic while the hot system is based on emotionality, fears, passions, and acts to undermine efforts of self-control."

By studying preschool children, whom are more driven by immediate gratification, four studies were conducted using different control strategies within the context of the delayed gratification paradigm. To this end, the preschoolers were given the option to have one edible treat now, or to wait 15 minutes for twice the reward.
3. Purpose: The purpose of this investigation is to better understand how the interplay of the hot and cool systems of reasoning affects how people are able to control their actions and feelings.
4. Method: Using preschool children, the study examines three control strategies that people can use to better enhance an individual's willpower. These include first the absence of a control strategy, obscuring or ignoring the stimulus, introducing a distraction, and "reframing the meaning of the stimulus that produces impulsive responses." To measure the extent to which these methods were successful in enabling greater willpower the mean response times were recorded and compared across the four strategies.
5. Results: The results of the study confirmed that as people age, they become more self-regulated in controlling their behavior. This has biological implications consistent with the growth of the hippocampus that also affects higher-level thinking and problem solving ability. Beyond this, the three control strategies all yielded positive results related to willpower enhancement. With the absence of a strategy and the reward in plain sight the mean response time for the preschoolers was about one minute; when the rewards were hidden about 75% of the children waited the full 15 minutes, more than half when the rewards were exposed with a distracter, and children that were asked to focus on aspects of the reward that attuned them to the cool system waited overtime before reaching their breaking point.
6. Conclusions: The results show that it is possible to control one's actions and feelings given that one exercises certain control strategies. In the preschool children the most effective means of controlling their behavior was the fourth and most complex control strategy involving appealing to the cool system components of the reward. Other notable findings included that when students were distracted, or the reward was removed from sight, their ensuing willpower was much greater. This has several implications for research in any field that revolves around a system rewards and will most definitely be more important in groups that have a higher disposition to immediate gratification.

ABSTRACT by Tina Bhandari

Article Information. Breuning S. E., & Regan J. T. (1978). Teaching regular class material to special education students, *Exceptional Children, 45*(3), 180-87.

Motivation Keywords: extrinsic motivation

1. Why this article is interesting. This article is of interest because it deals with a topic widely debated and yet poorly executed.
2. Background. According to Breuning and Regan (1978) several high schools place special education students in self contained classes due to poor academic performances, counterproductive behaviors from home and low IQ tests. These are not reasons to be placed in special education programs. The question was then raised about the IQ test scores versus real academic performance and the absence of motivational incentives.
3. Purpose. Breuning and Zella (1978) retested special education students on three mental ability tests under motivated (by incentives) conditions and found an increased average score of 20 points. Under standard testing conditions there was an increase of only 1-5 points. Regular education students had an increase of 1-7 points under motivated testing conditions and only 1-4 points under standard testing conditions. The outcome of these findings showed little difference between the two groups of students. This raised the question of the IQ test scores versus academic performance with and without motivational incentives causing the discrepancies in the scores obtained and not the student's actual mental ability. Two areas that were the possible cause of these findings for special education students were then hypothesized: (1) ineffective classroom management; and (2) lack of incentive motivation and the teaching procedure are directly related to academic performance.
4. Method. The setting was a Chicago high school, where 125 randomly subjects were chosen with two randomly chosen regular education courses (Biology and English) which were used as the instructional material. A form of teaching was chosen, precision teaching. Four phases of this technique, were put in place: (1) Baseline, (2) Incentive, (3) Control, and (4) Retention Testing. Eight randomly selected special education classes were chosen where 4 classes were to be Biology instruction and 4 to be English instruction. Each of all four sections went through the Baseline Phase which had 5 units (performance objectives and study guide questions for each unit). Four units were 30 minutes each and had a specific task/goal and one 60 minute session. Baseline phase went through each unit and had a 60 minute session at home with the parent. Phase 1 used the 60 minute session as the incentive if a student scored between: 85% and 100% = 60 minutes optional activity time; 70% and 84% = 40 minutes optional activity time; 60% and 69% = 20 minutes optional activity time; less than 60% = 0 minutes optional activity time. Phase 1 would take two from each of the two groups and put them through the phase. Phase 2 would exchanges the baseline and phase1 groups. Phase 3 puts all the groups through the incentive phase. The retention test phase was when all groups were tested.
5. Results. In the baseline phase, the students all performed at an average mean of 30%. The first group that went through the incentive phase went up to an average percentage of 70% while the group that stayed in the baseline phase stagnated at 30%. When the first group moved back to baseline and the second group came to the incentive phase, group one regressed less than the 30% and the second group moved up to 70%. When they all went through the incentive phase a second time they averaged between 75% and above. The retention tests then revealed the same average of 75% and above.
6. Conclusions. The results indicate that proper teaching procedure plus proper incentive conditions for special education students equate to an acceptable performance average score when taught regular education material. Small steps, structured timings and meaningful incentives can improve special education student's performances when learning regular education material. To transition these phases such that the motivation goes from extrinsic to intrinsic is not yet determined as seen by the moving of the groups from one phase to another and vice versa.

ABSTRACT by Keyana Ellis

Article Information. Sheppard, J., & Taylor, K. (1999). Social loafing and self-expectance value theory. *Personality and Social Psychology Bulletin, 25*(9), 1147-1158.

Motivation Keywords: social loafing, expectancy value theory

1. Why this article is interesting. This article is of interest because investigating the influence of factors, such as social loafing, is vital to understanding differing levels of individual contribution, team dynamics, and group performance as a collective pursues its goals.
2. Background. Researchers coined the term "social loafing" to describe low motivation and the reduction of a person's effort to produce a desired outcome when working in a collective. Often times, it is the effects of social loafing that deteriorates and undercuts the productivity of both individual and group performance, and can impede the progression of groups toward their goals. Prior research indicates that individuals exert greater effort when they perceive their individual efforts as indispensable, yet loaf when they perceive their efforts as dispensable. Researchers have connected goal pursuit and social loafing through the lens of expectance value theory, which is a function of (a) expectations—belief that performance depends on effort, (b) instrumentality— belief that outcome depends on performance, and (c) outcome value— value attached to achieving the outcome. The instrumentality factor of the model— connection between individual and group performance, group performance and outcome, and group and individual outcome— has been successfully applied to prior research.
3. Purpose. Research objectives for this study were to examine the contingency between individual performance and group performance through testing the instrumentality factor of the model, to explain low motivation and effort in a collective setting. Researchers manipulated experimenter evaluation and value of individual contribution to collective performance.
4. Methodology. The current research was conducted through two quantitative experiments using instrumentality and evaluation manipulation. Experiment 1 compared individual and group performance through a sample of 103 undergraduate students broken into two groups—one group was informed that collective performance would be rewarded and another group which were not given such information. Participants from both groups were randomly assigned into collectives and directed to find uses for an object by placing colored slips of paper into a box. Collectives were observed and evaluated for individual and group performance by the number of uses generated. Analysis was conducted by a 2 (evaluation vs. noevaluation) x 3 (high instrumentality vs. low instrumentality vs. control) between-participants factorial ANOVA.
Experiment 2 explored the contingency between group performance and group outcome through an evaluation condition through a sample of 89 undergraduate students. The same methodology was applied as experiment 1, however, some collectives were offered a reward to work hard and others were not.
5. Results. Results indicated that noevaluation participants worked hard only when they perceived a connection between individual performance and group performance. Evaluation participants generated significantly more uses than did noevaluation/ control participants. Also, noevaluation participants worked hard only when they perceived a connection between group performance and group outcome. Participants in the low instrumentality condition worked hard when their contributions could be evaluated, yet loafed when their contributions would not be evaluated.
6. Conclusions. Results indicate that individuals work hard in a collective for a valued outcome if instrumentality is high, and that participants work hard when evaluated when instrumentality is high or low. Individual social loafing can be delimitated in a collective if participant's value the behavior and the outcome; there is a dependency on individual efforts on group performance; and finally, a dependency of group outcome on group performance.

ABSTRACT by Ralph E. Cornwell Jr.

Brazell-Roberts, S. , & Thomas L. (1989). Effects of weight training frequency on the self-concept of college females. *Journal of Applied Sport Science Research, 3*, 40-43

Keywords: self-concept, self-esteem, weight training

1. Why this article is interesting. This article was interesting because it examined a correlation between self-concept, self-esteem, and the frequency of weight-training sessions per week in college-age females.
2. Background. Society puts tremendous pressure on women to look a certain way. Though many of these stereotypes are unattainable, women still equate their self-concept/self-esteem with societal expectations. Weight training is one of the most effective ways to change body appearance. A woman can increase lean muscle mass and lower body fat. With an improved body, she then feels better about herself, thus boosting her self-concept. Also, with the gains in strength, she can produce greater physical force/power, thus influencing her self-esteem.
3. Purpose. The purpose of this study was to determine the effects of weight-training frequency on the self-concept of college females. The researchers hypothesized that weight training would increase the participants' self-concepts.
4. Method. The study consisted of 164 college females with an average age of 21.03 ±3.3. Two experimental groups were enrolled in a beginning weight-training class; the remaining women were enrolled in a home economics class. Fifty-nine females were enrolled in the Monday-Wednesday-Friday (MWF) lifting class and 53 in the Tuesday-Thursday (TT) class. The women in the home economics class served as the control group; the average age was 22.9 ± 2.2. All three groups were given the Tennessee Self-Concept Scale Test before strength and body testing. The subjects were then tested on two lifts—bench press and half-squat--using an Olympic bar and free weights. A sit-up test also was administered. Three skin-fold measurements (triceps, suprailiac and thigh) were taken to determine levels of body fat.

The study lasted 12 weeks. The study's exercises included the bench press, half squat, military press, leg press, and bent-knee sit-ups. Each subject performed three sets of 10 repetitions at 75 percent maximum on each exercise. The two groups were retested every two weeks. The control group was asked to refrain from any strength-training exercises. The significance of changes in the dependent variables was evaluated using an analysis of covariance. The covariate for each dependent variable was the pre-training measure. Follow-up Scheffe "post hoc" analysis was used when appropriate. This study would be classified as quantitative.
5. Results. At the end of the 12-week program, the control group did not show significant changes in any of the measures. Both the training groups showed strength increases, but there were no significant physical performance differences in them. The women in the MWF group did change their body compositions when compared to the other two groups. ANCOVA revealed significant change ($p=<0.01$) for both strength-training groups on the total positive scores. The TT group was the only one to improve its self-satisfaction scores when compared to the control group. There were no significant differences between the two training groups when self-concept was measured.
6. Conclusions. The study revealed that participation in a strength-training program for two days per week was just as effective in increasing females' self-concepts as training three days a week. The control group only showed slight improvement, and this group's age difference may have affected some of the psychology test scores, researchers reasoned. Even though the Monday-Wednesday-Friday group reduced more body fat, researchers noted there was no significant change in their self-concepts.

ABSTRACT by Chelsea Koonce

Cocks, R. J., & Watt, H. M. G. (2004). Relationships among perceived competence, intrinsic value and mastery goal orientation in English and maths. *Australian Educational Researcher 31*(2), 81-112.

Motivation Keywords: intrinsic value, goal orientation, English, math

1. Why this article is interesting. This article is interesting because it takes a look at how students perceive their competency in English and math and then relate it to their intrinsic value by using both a quantitative questionnaire and qualitative interviews to expand.
2. Background. According to Ames and Archer, Goal theory research was initially based on two achievement goals: mastery goals, or those goals related to task-involvement or learning goals, which focus on development related to task mastery and competence, and performance goals that are focused on ability goals that relate ones competence to others.
3. Purpose. This research article looks at both English and math due to the fact they are both core subjects. The decision to choose how to place the interviewees was based on a matrix of high versus low competence perceptions and intrinsic motivation to see if any relationship exists.
4. Method. There were three focus groups: 1. high perceived competence and high mastery goals, 2. low perceived competence and high mastery goals, and 3. high perceived competence and low mastery goals. The questions that the interview focus groups will address include: 1. how high competence perceptions may foster high levels of master goals, 2. how some students' high master goals are derived despite low perceived competence and 3. why some other students have high competence perceptions have low mastery goals. There were two phases of the research design. The first phase used a questionnaire and the second phase was a qualitative interview phase that focused on students based on the three different conditions listed above to expand on the survey data. There were 60 participants that were Year 6 students in three government schools in the Metropolitan East region of Sydney. The students were from a middle-class socioeconomic background and were predominantly Anglo-Australian ethnic background. Those chosen to be interviewed were a sample size of seventeen taken from the larger sample across the three schools.
5. Results. The findings between perceived competence and intrinsic value for English and perceived competence for English and perceived competence and intrinsic value for math, mastery goals for English and perceived competence and intrinsic value for math, mastery goals for English and mastery goals for math, and intrinsic value for English and mastery goals for math were all found to be statistically significantly correlated at a $p < .05$ level. For those interviewees in the high self-perceptions of competence and high mastery goals, during the interview, they showed a strong liking for the subject in which they were being interviewed.
6. Conclusions. Through positive feedback from parents, friends, and teachers, positive feelings regarding the subject emerged within the participant and an increased level of interest, allowing the student to enjoy the subject and have a desire to improve. Students in this group were motivated by wanting to perform at the level of those around them. Students with low self-perceptions of competence and high mastery goals typically disliked the subject. Unlike the previous group, they received negative feedback from those around them, but those negative comments also added to their motivation to improve. Students with high self-perceptions of competence and low mastery goals enjoyed the subject due to the fact they were good at it. There is a lack of feedback from teachers and a lack of challenge so the student becomes less interested and less motivated in the subject.

ABSTRACT by Chelsea Koonce

Article Information. Hsieh, P., Sullivan, J., & Guerra, N. (2007). A Closer look at college students: self-efficacy and goal orientation. *Journal of Advanced Academics*, *18*(3), 454-476.

Motivation Keywords: self-efficacy, goal orientation, performance avoidance goals, performance-approach goals.

1. Why this article is interesting. This article is interesting because it looks at students' underachievement and then potentially dropping out of school, and I hope by looking at this article, we may be able to help more students.
2. Background. There are many factors that influence students' retention and underachievement. This study examined students' motivation towards learning, which has been found to be a strong predictor of students' achievement. Two factors influence students' underachievement and subsequent dropping-out of college: self efficacy and goal orientation. Self-efficacy refers to peoples' judgments about their capabilities to complete a task. Goal orientations refer to the motives that students have for completing tasks, which may include: developing and improving ability (mastery goals), demonstrating Ability (performance-approach goals), and hiding lack of ability (performance-avoidance goals).
3. Purpose. There are two research questions that are to be addressed in this study: (a) how well do students' scores on the self-efficacy and each of the goal orientations scales predict achievement? (b) Are successful (students in good academic standing, with a Grade Point Average [GPA] of 2.0 or above) and unsuccessful (students on academic probation, with a GPA below 2.0) students different in terms of their self-efficacy levels? If so, among the successful and unsuccessful students, how do those who have either a high or low level of self-efficacy differ in terms of their adoption of different goal orientations?
4. Method. The participants include 112 Undergraduate students from a large, metropolitan, Hispanic-serving institution in the Southwest. The data was collected by having students complete two sets of questionnaires. Six items based on academic efficacy (e.g. I am certain I can master the skills taught in school this year) from PALS (Patterns of Adoptive Learning Survey), 18 items from the Achievement Goal Orientation Inventory measured into three goal orientation subscales: (a) Mastery Goals (e.g. I want to learn as much as possible while in college), (b) Performance-approach Goals (e.g. It is important to me to do better than the other students, and (c) Performance Avoidance Goals (e.g. I often think to myself, "What if I do badly in college?"). Students were rated on a 5-point Likert scale with 1 being strongly disagree and 5 being strongly agree.
5. Results. The results indicated that self-efficacy is statistically correlated to mastery goals, students that were on academic probation and reporting having high self-efficacy tended to adopt performance-avoidance goals than those in good academic standing. The results also indicated that self-efficacy is statistically related to the students' GPA.
6. Conclusions. When examining at the data from this study and at the different beliefs of students and their success in college, the findings provide researchers with a view into students' self-efficacy and how it relates to their overall GPA. As pointed out in this study, teachers not only need to know about students self-efficacy, but their goal orientations for learning because this helps give students a better chance at successfully completing college.

ABSTRACT by Ralph E. Cornwell Jr.

Article Information. Silbernagel, M., Short, S., & Rose-Stuart, L. (2007). Athlete's use of exercise imagery during weight training. *Journal of Strength and Conditioning, 21*(4), 1077-1081.

Motivation Keywords: visualization, confidence, strength training

1. Why this article is interesting. This article was interesting because it examined the correlation between using imagery and the effect it has on strength training.
2. Background. Sports psychologists regard imagery as one of the most effective techniques to cognitively enhance sports performance. Imagery mimics real-life situations. Athletes can use an image to rehearse scenarios of successful outcomes. The athlete is awake and conscious, but visualizes images, movements, smells, and tastes to prepare for his or her athletic event.
3. Purpose. The purpose of this study was to determine the effect that imagery has on athletes in a required strength-training setting. Does imagery change the performance level in the weight room?
4. Method. The study consisted of 295 Division I athletes (157 were women) in a required strength-training environment. Various sports were included. Participants were asked to complete the Weight Lifting Imagery Questionnaire (WLIQ). The WLIQ has three subscales: appearance imagery, energy imagery, and technique imagery. The researchers attempted to use imagery to increase confidence in the weight room. The frequency of imagery also was measured.
5. Results. The researchers hypothesized that because the athletes' strength training was required for their sport, the motivational level would be a determining factor in the study. Effectiveness was assessed by self-reporting. Each subject was asked: "How does this image affect your performance in the weight room?" Ratings were made on a -3 (negative/hinders) to 0 (neutral) to +3 (positive/helps). The results showed appearance imagery was used most often, followed by energy and technique imagery. The highest motivated athletes used imagery more than the less motivated ones. The imagery use subscales were positively associated with confidence in the weight room, except for energy.
6. Conclusions. The results of the study revealed that the athletes were more confident in their ability to use imagery. There was also a positive relationship between imagery use and imagery effectiveness and confidence in the weight room that would possibly lead to confidence in sports and other domains.

ABSTRACT by Keyana C. Ellis

Article Information. Plybon, L. E., Heidi H., Hunter, A., Sheffield, C., Stephens, C., & Cavolo, L. (2009). The impact of body image and Afrocentric appearance on sexual refusal self-efficacy in early adolescent African-American girls. *Sex Education, 9*(4), 437-448.

Motivation Keywords: self-efficacy, African-American, sexual refusal

1. Why this article is interesting. This article is interesting because it hypothesizes a direct connection between body image, Afrocentric appearance, and sexual refusal self-efficacy. Researchers are alarmed concerning increased teenage pregnancy, intercourse rates, and engaging in sex at earlier ages in African-American females compared to statistics of other races.
2. Background. Prior research examining youth self-efficacy and sexual activity has been limited to specific clinical conditions and/or white adolescents. There are few conclusions about the connections of race, body image, and self concept and the influence of such on sexual outcomes in African-American females. Research has shown that there are differences between White and African-American perceptions of beauty, and that African-Americans define attractiveness based on Afrocentric characteristics. Influencing this standard is the media's portrayal of African-Americans through "sexual scripts" and images in pop culture, which continues to manipulate an African-American female's own identity and sexuality. These sexual scripts continue to connect their body image and sex with their socio-cultural ethnic features. Both intervention and education literature is needed to define the relationship between body image and physical appearance to the sexual risk taking in minority youth to reverse current statistics.
3. Purpose. The purpose of this research was to examine the relationships among body image, Afrocentric appearance, and the belief of African-American girls to refuse sexual activity. Results of this study not only could enhance the literature, but also could be used to develop and encourage culturally based teenage pregnancy and related prevention initiatives.
4. Method. This study used a sample of 156 African-American girls who participated in a drug prevention program in a southern U.S. city during the 2001-2002 school year. Project staff worked with officials to randomly select girls as recruit for the program; of this pool, 39% (n = 156) returned the parental consent to participate in this study. Data was collected through a survey comprised of three sections to measure Afrocentic body image (*Image Acceptance Measure*), body weight (*Body Weight and Shape Self Schema Scale*), and sexual activity (*Sexual Refusal Self Efficacy Scale*). Results were analyzed through confirmatory factor analysis and structural equation modeling based on self-reported data.
5. Results. There were no significant correlations between the independent variables of body image and Afrocentric image and the covariants of age, maternal education, and age of menstruation. Bivariate correlational analyses identified no significant correlation between body image and sexual refusal self efficacy; and that afrocentric image was correlated with sexual refusal self-efficacy. The final model connected the 10 factors of the Image Acceptance Measure: hair, natural hair, thinness, dark skin, skin test, straight hair, weave, long hair, small, and face with an African-American girl's ability to refuse sex at this age. This suggests that if there is a positive self concept associated with these Afrocentric cultural factors of an African-American female, there is better chance that the student will make better sexual behaviors and choices.
6. Conclusions. This research has practical implications for the development of intervention programs to decrease pregnancy and sexual activity rates in African-American girls. Researchers suggest that these programs must center proper sexual behavior in a culturally relevant context, and within an Afrocentric ethnic framework. Researchers identified the promotion of culturally-relevant beliefs and values related to image and appearance as a mechanism to assist girls to develop behaviors and assertive attitudes that promote sexual refusal, and thus, decrease current sexual and pregnancy rates.

ABSTRACT by Tina Bhandari

Article Information. Kaufman, A., & Dodge, T. (2008). Student perceptions and motivation in the classroom: Exploring relatedness and value, *Soc Psychol Educ, 12*, 101-112. doi:I10.1007/s11218-008-9070-2

Motivation Keywords: self-determination, relatedness, value, motivation, goal, autonomy, internalization

1. Why this article is interesting. This article is of interest because it deals with a topic that is definitely current in this era of education. Relatedness, value, and their relation to the professor in college has become an increasing need as attrition of students in college settings increases (American College Testing Program, 2007).
2. Background. Ryan and Deci (2000), Vansteenkiste et al. (2004), Waterman (2005), Wild et al. (1997) all state that external rewards such as grades, undermine intrinsic motivation and yet the two are said to go hand–in-hand. For centuries teachers have used grades to promote and encourage intrinsic motivation to do better in class. Yet, research by the above mentioned researchers state it is the relation of the teacher and student that will promote intrinsic motivation to get better grades and do well in class, which equal value given to the class.
3. Purpose. Kaufman and Dodge (2008), much along the same lines as Deci et al.(1999) said that even though there are extrinsic motivators for the student, the school environment can facilitate those motivators to become internalized. Two such characteristics are connectedness between student and teacher, and how valuable the student perceives the task to be. With that in mind, there are too few studies that have examined factors influencing relatedness and value in the academic setting using autonomy and achievement goals, which is the purpose of this study.
4. Method. The setting was a university in four undergraduate psychology classes with 222 participants, of which 90 were men and 132 were women; 72% were Caucasian and 36% were non-Caucasian. The data was collected through consented surveys that included a 7-point scale. Reliability coefficients were used for the study variables: performance-approach, performance-avoid, mastery, autonomy, value, and relatedness. To analyze the data, linear regression was used to test the study variables.
5. Results. There was a positive correlation between performance-avoidance goals which were negatively associated with autonomy and relatedness. There was a significant, positive impact of autonomy and mastery goals on relatedness and value. Performance-approach and performance-avoid were nullified and not predictors of relatedness or value to professor and class/task.
6. Conclusions. The results indicate strong mastery goals and strong autonomy develop a strong relation to the professors and the class to be more valuable. The results of this study contributes towards the theories of Self-determination (Deci & Ryan, 2000) and Achievement Goal (Elliot, 1999) in that relatedness and value can be associated with integrating extrinsic behaviors with intrinsic behaviors; mastery goals are positively and significantly associated with relatedness to a professor and value to course. The implications suggest that if attrition of students returning to college after their first year should be reduced, there should be a focus on mastery goals (based on knowledge) instead of performance based goals (grades); there should be a shift in creating classes that will enhance students taking more autonomous decisions of their education; having an environment where relations with professors are possible and not stressful; rethink course requirements and sequences. These can be structural, policy, or classroom level changes/modifications.

ABSTRACT by Laura Lester

Article Information. Gambrell, L. B. & Marinak, B. A. (2008). Intrinsic motivation and rewards: What sustains young children's engagement with text? *Literacy Research and Instruction, 47*, 9-26.

Motivation Keywords: intrinsic motivation, reading engagement, rewards, incentives, task persistence

1. Why this article is interesting. Teachers use a variety of rewards to build reading engagement. This article is interesting because it focuses on how teachers can use rewards to help students develop intrinsic motivation for reading.
2. Background. Motivation has been found to play a central role in literacy development. Research suggests that it is more important to consider under what conditions, rather than if, rewards undermine intrinsic motivation. Limited research exists on the effect the type of reward and choice of reward on intrinsic motivation, the possible interaction of the two variables, and the effects of reward proximity to the desired learning behavior.
3. Purpose. The purpose of this study was to explore the reward proximity hypothesis and the effect of choice of reward on intrinsic reading motivation of third graders.
4. Method. To assess existing motivation, the *Motivation to Read Profile* assessment was administered to third graders in three elementary schools in a large Mid-Atlantic suburban school district. Seventy-five students were randomly assigned to one of five treatment groups: book/choice (student selected book), book/no choice (randomly selected book), token/choice (student token), and token/no choice (randomly selected token), and the control group (no reward/no choice). Researchers met with each student individually during two phases of the study. In phase one, a library book selection activity, each child read and recommended books for the school library and then received a reward based on their group. In phase two, a free choice activity, the child chose between reading, doing a math game, or doing a jigsaw puzzle, and then received a reward, token, or no reward. Task persistence was used to define intrinsic motivation and three measures were obtained: first activity selected (reading, jigsaw puzzle, math game), number of seconds spent reading, and number of words read.
5. Results. An ANOVA was used to analyze the MRP data and revealed no significant differences in initial reading motivation between groups. For the first activity selected during free choice, a chi-square analysis revealed a significant difference between students in book groups and no reward compared to token groups and no significant difference between students in the choice/no choice group. A one-way ANOVA with multiple comparisons found significant statistical differences between groups for seconds spent reading during the free choice activity. Another one-way ANOVA with multiple comparisons found a significant difference between treatment groups for the number of words read.
6. Conclusions. The findings of the study revealed that students who received a book (proximal reward) and students who received no reward, were more motivated to engage in subsequent reading than students who received a token (less proximal reward). The intrinsic motivation of the token group was lower on all three measures than that of the book and control groups. Therefore, this study suggested that the proximity of the reward to the desired behavior is a prominent factor in enhancing motivation to read.

ABSTRACT by Stephen Biscotte

Article Information. Dammers, J., Spencer, J., & Thomas, M. (2001). Using real patients in problem-based learning: Students comments' on the value of using real, as opposed to paper cases, in a problem-based learning module in general practice. *Medical Education, 35*, 27-34.

Motivation Keywords: interest theory, trigger interest, problem-based learning, curriculum, medical education

1. Why this article is interesting. Students in a problem-based learning based medical program found curricula built on real patients more interesting, relevant, emotionally connecting, and complex than traditional programs built around hypothetical paper cases and case studies.
2. Background. Paper studies, role play, and past case reports are often used in problem-based medical programs. However, since the doctor-patient interaction serves as an integral part in the treatment process, it is surprising that there is so little research available on using real patients as the stimulus for the problem-based learning process. The students use the Maastricht seven step problem-solving method to research and evaluate 10 topics, such as pediatrics and diabetes.
3. Purpose. The authors wanted to gather students' perceptions of the educational value of using real patients. The authors hypothesized that using real patients would be an effective stimulus and would prompt students to formulate and explore important learning objectives using a wide range of resources in a general practice and community setting.
4. Method. Sixty nine students in nine groups participated in the qualitative study over two years. The authors used the responses to the question "was there any particular 'added value' in having real, as opposed to paper cases for the problems?" The responses were then transcribed and triangulated to the teachers' observations.
5. Results. The responses to the questionnaire yielded 10 major themes: 1) contextualization and relevance; 2) interest, purpose, and motivation; 3) focus; 4) responsibility; 5) communication skills and feelings; 6) complexity; 7) opportunity to verify, clarify, and critique data; 8) different perspectives; 9) empathy and a patient-centered perspective; and 10) meeting and talking with people. In regards to interest and motivation, one student said that "the patients gave more purpose and reality to the tasks arising out of the cases." Also, students used a variety of medical and community resources to explore their problems, such as the patient and his/her family, coordinating members of the health team, and case studies and literature.
6. Conclusions. Real patients had a positive effect on the problem-based learning method in the fourth-year medical school program. Using real patients added student perceived value to the process, enhanced the patient-centered approach to teaching, and demanded the use of diverse resources to research and explore the content modules. Students developed different perspectives which stimulated discussion and often achieved a holistic and multidisciplinary approach to understanding complex problems surrounding the patient.

Abstract by Kevin Sevilla

Article Information. Charyton, C., & Snelbecker, G. (2007). General, artistic and scientific creativity attributes of engineering and music students. *Creativity Research Journal, 19*(2-3), 213-225.

Motivation Keywords: artistic creativity, scientific creativity, general creativity

1. Why this article is interesting. This article is interesting in that it compares two major groups of undergraduate students among three different creativity constructs to investigate differences in self-perception and creative potential.
2. Background. There is an ongoing conversation in research about creativity and how its expression differs among different domains. From this conversation, and building off of her dissertation work, Dr. Charyton investigates two sets of undergraduate students, one from music and the other from engineering, and tested them on measures of general, artistic, and scientific creativity.
3. Purpose. This study had four research questions aimed at investigating: the similarities and differences between music and engineering students among general, artistic, and scientific creativity, how these students compared with normative data from the instruments used, differences among majors within these two fields, and differences among demographics. The authors' hypotheses were that the music students would score higher on measures of artistic creativity, the engineering students would score higher on scientific creativity, and that there would be no significant differences on measures of general creativity.
4. Method. The data collection consisted of five previously developed creativity scales and a questionnaire with demographics. Of the five scales, three addressed general creativity, one addressed artistic creativity, and the other scientific creativity. The sample included 100 music students and 105 engineering students from a large northeastern university.
5. Results. The results of this study showed music students scored higher on measures of general and artistic creativity, with no significant difference being found among them and engineering students in measures of scientific creativity. In addressing the second research question, no significant differences were found between different engineering and different music majors. From the demographic data, no significant differences were found among any of the three constructs for age or gender, while ethnicity showed slightly higher scores among Caucasians in comparison with "other" groups.
6. Conclusions. While there were several statistically significant differences between the two groups studied, the authors themselves state that these results "do not indicate that there are substantial creativity differences between engineers and musicians." While the title would leave to one to believe that this study ultimately would have identified attributes that contribute to creativity, none were mentioned, leaving the reader to wonder what the point of this study truly was. As it stands, this research does point to the fact that artists tend to be more creative than engineers. This may be the result of personality types, interests, or the curriculum for which they wish to be a part of. Artists seem to want to express themselves while engineers may have a greater desire to be "correct" than creative. Whatever the case may be, this study at least pointed to several variables which do not enhance or deter any individual from the pursuit of being creative such as age or gender. Given these results, and that creativity is a valued capacity of an engineer, one should seek ways in which to increase this ability within students and ultimately professionals leading to greater ideation and innovating answers to the engineering problems of the future.

ABSTRACT by Britta Petrich

Article Information. Clark, M. H., & Schroth, C. A. (2010). Examining relationships between academic motivation and personality among college students. *Learning and Individual Differences, 20*(1), 19-24.

Motivation Keywords: Academic motivation, Big Five personality traits, Intrinsic motivation, Extrinsic motivation

1. Why this article is interesting. This article is interesting because it uses the Academic Motivation Scale (Vallerand et al., 1992) that we used for our second Motivation Investigation. By choosing this article, not only did I recognize one of the measurement scales, but I also gained a deeper sense of how AMS is being used in the field.
2. Background. What motivates students to attend college? Previous research on academic motivation showed the importance of relationships as well as suggested personality factors have implications on learning. Deci and Ryan's self-determination theory (SDT) of motivation (1985) is used in this study to break down the three types of Extrinsic motivation (external regulation, introjected regulation, and identified regulation), three types of Intrinsic motivation (to know, accomplishment, and stimulation), and Amotivation, which is a lack of motivation. In addition to these seven factors of academic motivation, five personality factors are used. The Big Five (Costa & McCrae, 1986) include: extroversion, agreeableness, conscientiousness, neuroticism, and openness to new experiences.
3. Purpose. The purpose of this article was to examine why first-year students enroll in college using AMS and the Big Five Personality Questionnaire (Goldberg, 2004) to examine relationships between academic motivation and personality factors. Accordingly, "the present study examined how the Big Five personality traits relate to seven factors of academic motivation among first-year college students" (p. 20).
4. Method. This study "consisted of 451 first-year college students enrolled in an introductory psychology course at a rural, mid-western university" (p. 21). The researchers used the AMS-C28 (Vallerand et al., 1992, 2004) and the 50 Big Five Factor Markers scale (Goldberg, 2004) to gather written self-reported responses from the students.
5. Results. Regression analysis was used to determine significance between the seven types of academic motivation and five personality traits. All regression models were significant at $p < .001$. Those who were intrinsically motivated to attend college tended to be extroverted, agreeable, conscientious, and open to new experiences. Those who were extrinsically motivated tended to be extroverted, agreeable, conscientious, and neurotic. Amotivated students tended to be disagreeable and careless.
6. Conclusions. In addition to the findings, authors concluded that the study had implications for teaching, limitations, and potential for future research on SDT. One teaching implication was to provide these findings to instructors, counselors, parents, and even students so they could devise teaching, planning, and learning strategies tailored to the individual. A limitation in this study was the variability of distributions, which were both positively and negatively skewed and leptokurtic; thus, causing possible error in the results. Future research might include more evidence that motivation types are ordinal levels of internal regulation (Deci & Ryan, 2000) because this study could not provide evidence for this claim.

ABSTRACT by Lee Rakes

Article Information. Rathunde, K., & Csikszentmihalyi, M. (2005). Middle school students' motivation and quality of experience: A comparison of Montessori and traditional school environments. *American Journal of Education, 111,* 341-371.

Motivation Keywords: flow, quality experience, motivation, school environment

1. Why this article is interesting. This article suggests that traditional middle schools may not foster a motivational climate conducive to sustained academic motivation.
2. Background. As middle school approaches many students experience a decrease in academic motivation. This decrease is partially attributable to the motivational climate fostered by their learning institution. An environment that fosters a more personalized context for learning, like that of Montessori schools, may be able to partially alleviate some of the issues concerning academic motivation.
3. Purpose. The purpose of this study was to discover if the motivational climate of Montessori schools fostered greater opportunity for optimal experience than traditional schools in terms of academic motivation.
4. Method. Participants included 290 demographically matched students from Montessori and traditional schools. The Experience Sampling Method was utilized to measure student affect, potency, salience, intrinsic motivation, and flow. Background data were acquired through questionnaires and NELS data.
5. Results. In the comparison of motivation and quality of experience variables across school type a two-way MANCOVA with parental education, gender, and ethnic background as covariates showed significant differences for school context (Wilks's lambda = .84, $F(5, 275) = 10.84$, $p < .001$). Follow-up ANCOVAs for school context and ESM variables showed Montessori students reported more flow, higher affect, potency, and intrinsic motivation while doing schoolwork. The traditional students, however, reported higher salience. A second MANCOVA was utilized for interest quadrants created for intrinsic motivation and salience variables and revealed a significant difference for school context (Wilks's lambda= .83, $F(3, 289) = 19.20$, $p < .001$). Follow-up ANCOVAs revealed that students in the two school contexts reported differences in two of four quadrants, being (high motivation and high importance) ($F(1, 291)$ p 35.37, $p < .001$) and the (low motivation and high importance) ($F(1, 291)$ p 45.92, $p < .001$). Traditional students more often perceived their school activities as having high importance and low intrinsic motivation, while the Montessori students' mean percent of divided interest/drudgery (26 percent, SE p 1.9) was lower than the traditional students' mean (44 percent, SE p 1.8). Concerning quality of experience for nonacademic activities at school two-way MANCOVAs revealed significant differences for school context (Wilks's lambda = .92, $F(5, 270) = 4.90$, $p < .001$). Follow-up ANCOVA of the five ESM variables revealed both school contexts reported higher levels of affect, potency, and intrinsic motivation in nonacademic activities, as well as lower levels of salience and flow in nonacademic tasks. Intrinsic level and potency were similar as well. Students in the traditional group reported significantly more flow in nonacademic activities, although the Montessori students reported better overall affect. The traditional students reported that their activities were more important.
6. Conclusions. Data revealed that school environment may indeed promote greater academic motivation. Most critically, Montessori students reported greater affect, potency, intrinsic motivation, flow experience, and undivided interest while engaged in academic activities at school than their traditional school counterparts.

ABSTRACT by Joseph L. Salmon

Article Information. Cantrell, S., & Hughes, H. (2008). Teacher efficacy and content literacy implementation: An exploration of the effects of extended professional development with coaching. *Journal of Literacy Research, 40*, 95-127.

Motivation Keywords: personal efficacy, general efficacy, collective teacher efficacy, literacy, professional development, coaching

1. Why this article is interesting. This article examines a staff development program with instructional coaching and its effects on teacher efficacy. Little research has been done on instructional coaching, and this study provides data to support the use of this method of staff development. This study examines the role of instructional coaches and collaboration with regard to the significant and positive enhancement of teacher efficacy. Additionally, it provides a concise review of the literature which documents much of the research conducted on coaching and builds the body of information that this researcher has collected on this subject.
2. Background. The study examines high school teachers and beliefs about their ability to teach reading strategies which form the basis for higher thinking skills in students and thereby support student achievement in the content areas in which they teach. These educators felt very efficacious concerning teaching their content areas; however, they did not feel confident in their ability to teach reading skills. Twenty-two teachers were provided staff development for teaching literacy skills along with opportunities for collaboration and access to an instructional coach. The review of the literature examines the links among efficacy, effective classroom practices, persistence with struggling students, and student achievement. Relationships are examined in order to determine implementation of the literacy program at the high schools.
3. Purpose. The purpose of this study was to examine the effects of a literacy professional development program with coaching on teachers' efficacy for integrating and teaching literacy within their core areas. Additionally, the effects of teacher efficacy were examined in relationship to the actual implementation of the curriculum. Finally, the study observed the effects of the successful implementation of the program on teacher efficacy.
4. Method. A sequential mixed methods research design was used that incorporated qualitative and quantitative measures. Participants were twenty-two sixth and ninth grade teachers from eight schools. Teachers were part of a staff development program which was designed to provide strategies to assist high school students with reading skills. Teachers had opportunities to collaborate and a coach provided expertise in order to facilitate the implementation process by providing feedback on work and planning and by modeling lessons. Efficacy surveys, classroom observations, and teacher interviews were used to collect data.
5. Results. The first research question focused on the effects of the program on teacher efficacy for teaching literacy, and it was found to be significant, t (21) = -3.000; $p < .01$. The second question focused on efficacy and implementation, and a significant relationship was found, t (21) = -2.093; p = <.05. Qualitative measures revealed that coaching was an important component of this program in order to support efficacy and implementation which supported the third question.
6. Conclusions. The study provides data to support the importance of coaching which was the component of interest for this researcher. Since increased teacher efficacy affects student achievement positively, this has major implications for staff development. The article suggests that more research on coaching is needed since the body of research is still limited.

ABSTRACT by Luka Ngoyi

Article Information. Heyman, G. D., Martyna, B., & Sangeeta, B. (2002). Gender and achievement-related beliefs among engineering students. *Journal of Women and Minorities in Science and Engineering, 8,* 41–52.

Motivation Keywords: Achievement, value, interest, self efficacy, retention, engineering

1. Why this article is interesting. The article examines beliefs that may be related to the differential entry and retention rates in engineering for women versus men. This article is important because it looks at the role gender plays in engineering subjects.
2. Background. The article looked at three major types of beliefs in the study: (a) the nature of abilities and the meaning of difficulties that are encountered, (b) whether male and female engineering students are treated differently, and (c) values and interests. One set of questions focused on how engineering and non-engineering students conceptualize intellectual abilities and how they interpret and respond to the academic difficulties they encounter. The second major set of questions was concerned with how female engineering students perceived the social climate, an important factor affecting women's persistence.
3. Purpose. The purpose of this study was to measure achievement-related beliefs and to determine whether female engineering students would show a greater tendency than males to views of engineering aptitude.
4. Method. Participants were 238 undergraduates enrolled at the University of California, San Diego. Participants were asked to rate their levels of agreement with the following two statements: (a) "You have a certain amount of aptitude for engineering, and you really can't do much to change it"; and (b) "You can learn new things, but you can't really change your basic aptitude for engineering." They rated their agreement on scales ranging from 1 (strongly agree) to 6 (strongly disagree). Those whose average scores were below 3.5 were classified as having an entity theory of aptitude for engineering. Participants whose scores were exactly 3.5 were excluded from all analyses that included the entity-incremental distinction.
5. Results. One goal of the research was to determine whether female engineering students would show a greater tendency than their male counterparts to endorse entity (fixed) views of engineering aptitude. This was indeed the case: Of participants who endorsed either entity or incremental beliefs, 72% of female engineering students were classified as holding entity theories of aptitude for engineering, as compared to 46% of male engineering students. In contrast, no such gender differences were seen concerning more general beliefs about intelligence. Another was to determine the extent to which women might perceive differences in how male and female engineering students are treated. Just over half (55%) of female engineering majors perceived gender differences in how engineering students are treated, as compared to only about a quarter (27%) of their male counterparts,
6. Conclusions. Engineering majors showed a different pattern of emphasis on intrinsic versus extrinsic factors than female non-engineering majors: Female engineering majors were more likely to emphasize extrinsic factors, including prestige, and were less likely to emphasize intrinsic factors, including the opportunity to work on interesting projects. These findings suggest that some women may decide to enter engineering because they are willing to sacrifice doing something in which have great interest in order to achieve the financial rewards and status associated with engineers, whereas men may not see this as a trade-off.

ABSTRACT by Cory Epler

Article Information. Kizilgunes, B., Tekkaya, C., & Sungur, S. (2009). Modeling the relations among students' epistemological beliefs, motivation, learning approach, and achievement. *The Journal of Educational Research, 102*(4), 243-256.

Motivation Keywords: Achievement motivation, epistemology

1. Why this article is interesting. Many variables impact student achievement and researchers have become increasingly interested in how a student's epistemological beliefs impact their achievement in relationship to their motivation and learning approach.
2. Background. Kizilgunes, Tekkaya, and Sungur emphasize the variety of variables that have been empirically connected with student achievement. Both cognitive and motivational variables impact student achievement, but recently, researchers have become interested in the relationship epistemological beliefs have on achievement. A student's epistemological beliefs involve thoughts about the nature of knowledge and the manner in which knowledge is acquired. A student's epistemological beliefs can range from very advanced to very naïve. Often, epistemological beliefs center around four factors: simple knowledge (knowledge is simple rather than complex), certain knowledge (knowledge is certain rather than tentative), innate ability (the ability to learn is innate rather than acquired), and quick learning (learning is quick or not at all). The authors cite multiple studies that indicate students' epistemological beliefs influence their ability to use either deep or surface learning approaches and the relationship between epistemological beliefs, goal orientation, and self-efficacy.
3. Purpose. The purpose of the study was to examine how epistemological beliefs, achievement motivation, and learning approaches are related to achievement. Specifically, this study identified the relationship among younger elementary school students' epistemological beliefs, learning approaches, motivation and achievement in a different cultural context.
4. Method. Prior to collecting data, the authors proposed a path model that considered the relations among the variables established by prior research. Participants were 1,041 sixth-grade science students attending 11 public schools in Turkey. Data was collected using four instruments. The Classification Concept Things Test was used to assess the science achievement of the students after four 40-minute science lessons. The Epistemological Beliefs Questionnaire assessed the students' epistemological beliefs about the nature of science, and the Learning Approach Questionnaire assessed if meaningful or rote learning strategies were used. Finally, the Achievement Motivation Questionnaire was used to assess students' motivation to learn during the four science lessons. The proposed path model assumed that epistemological beliefs influenced achievement motivation and learning approach directly, but that they also influenced learning approach and achievement indirectly through their effect on achievement motivation.
5. Results. Path analysis was applied using LISREL and it was determined that all path coefficients were statistically significant. In the model, achievement motivation, self-efficacy, and epistemological beliefs accounted for 38% of the variance in learning approaches. Epistemological beliefs accounted for 15% of the variance in performance goal, 49% of variance in learning goal, and 10% of variance in self-efficacy. Direct effects of epistemological beliefs on achievement motivation and self-efficacy were statistically significant, and the direction of the relationship between learning approach and achievement was positive.
6. Conclusions. The results of this study reveal that epistemological beliefs, achievement motivations, and choice of learning approaches are important determinants of sixth-grade students' achievement in science. With that in mind, teachers should select instructional strategies that help students develop more advanced epistemological beliefs and use meaningful learning approaches. To do so, teachers must first help their students clarify their beliefs about knowing and learning. They must also use instructional strategies that go beyond memorization of facts and terminology, but use methods that help students make meaningful explanations of the concepts being taught. Only then can students become learners who are able to maintain knowledge and apply it within new situations.

ABSTRACT by Lauren Bryant

Article Information: Soric, I., & Palekcic, M. (2009). The role of students' interests in self-regulated learning: The relationship between students' interests, learning strategies and causal attributions. *Educational Research Quarterly, 24*(4), 545-565.

Motivation Keywords: intrinsic motivation, interest, learning strategies, attributions

1. Why this article is interesting. This study found that learning strategies mediated a relationship between students' interests and academic achievement, and that autonomy played a partial mediating role between academic achievement and interest.
2. Background. According to Zimmerman (2000), there are three distinct yet interdependent phases of self-regulation: a forethought phase, a performance control phase, and a self-reflection phase. In the forethought phase, students set goals for learning and plan strategies to attain these goals. In the performance control phase, students engage in the task and monitor their progress and affect. In the self-reflection phase, students make evaluations about their performance and make causal attributions. Previous research has suggested that student interest, learning strategies, and causal attributions all play a role within the three phase model of self-regulation to ultimately affect achievement.
3. Purpose. The researchers proposed a model of the interest-achievement relationship that is cyclical and takes into account how interest affects the forethought phase, how learning strategies affect the performance phase, and how causal attributions affect the reflection phase. The researchers hypothesized that interest would be related to academic achievement through the students' selection of learning strategies, higher achievers would report a greater use of most learning strategies, and causal attributions would play a mediating role between achievement and interest. Finally, higher achievement would increase domain specific interest.
4. Method. 176 Croatian college students participated in this study. Students gave self-reports for grades and three questionnaires were administered: the Study Interest Questionnaire, an inventory for measuring learning strategies (the LIST), and the Causal Attribution Scale II. A Croatian version of each scale was used. The study interest questionnaire was used to assess domain specific interests of students. The LIST, developed by Wild and Schiefele (1994) was used to measure learning strategies and is composed of cognitive, metacognitive, and resource management subscales. Regression analyses were used to determine predictive relationships between variables.
5. Results. Initial analysis showed that domain specific interest was highly correlated to a reported used of learning strategies. Three learning strategies were found to predict grades: organization, time management, and rote learning (which was a negative predictor). Regression analysis showed that learning strategies did play a mediating role between domain specific interest and achievement. Analysis also showed that achievement impacts domain specific interest, with students' perceptions of control playing a partial mediating role.
6. Conclusions. These results support the idea that the interest-achievement relationship is cyclical, and supports the model proposed by the researchers. According to these results, students with high domain specific interests show higher achievement through the selection of effective learning strategies. This high level of achievement then increases domain specific interest when students feel they have control over their level of performance with that domain. Overall, this study showed that interest is also a consequence of, not just a precursor to, achievement.

ABSTRACT by Rebekah Brook

Article Information. Cervello, E. M., Escarti, A., & Guzman, J. F. (2007). Youth sport dropout from the achievement goal theory. *Psicothema, 19*(1), 65-71.

Motivation Keywords: Achievement Goal Theory, dropout, sport

1. Why this article is interesting. I found this article interesting as it applied achievement goal theory to explain dropout rates from competitive youth sports in Spain.
2. Background. Research into understanding why young people dropout of sport has been studied for about two decades. Initially this research was qualitative in nature, with participants explaining why they stopped participating in and practicing competitive sport. These initial studies have lead investigators to explain dropout as a lack of motivation. Achievement goal theory (AGT) is a prominent motivation theory in sport. The theory suggests there are two ways to judge one's ability: 1) by social comparison (ego-orientation), and 2) by learning and command of the task (task-orientation). Under the framework of AGT researchers have found that task-oriented athletes have more positive motivation, affect, and behavioral patterns than ego-oriented athletes. Other findings have been that an athlete's perception of his/her coach's and sport friends' success criteria is strongly related to that athlete's goal orientation; and, athletes with high perceived competence persist longer at tasks. The researchers wanted to examine youth athlete dropout using the framework of achievement goal theory as they felt that there was not enough research in this area.
3. Purpose. The purpose of this study was to empirically analyze the predictive power of AGT with regard to leaving sport, in particular, youth competitive sport. The researchers hypothesized that those individuals who had low perception of their own competence, were highly ego-oriented, and perceived task-oriented sports success criteria in their coaches and sport friends would be more likely to drop out of their sport.
4. Method. The participants were 57 male and 33 female track and field athletes and 33 male and 11 female tennis players. All were Spanish and talented, competitive athletes that had been with their current coach for more than two years. At the beginning of the season all players were given the POSQ to assess goal orientation, the PSOSSCQ to assess perceive coach and sport friend success criteria, and a single measure of how they thought they compared with others to assess perceived competence. Dropout behavior was measured postseason by asking the coaches whether anyone had stopped playing competitively. Of the 134 participants, 16 had dropped out.
5. Results. Positive correlations were found between: ego-oriented sport success criteria and ego-orientation; task-oriented sport criteria and task-orientation; task-oriented sport criteria and perception of ability; perception of ability and task-orientation; and ego-orientation and dropout. A negative correlation was found between perception of ability and dropout.
6. Conclusions. Consistent with the hypothesis, the researchers found that athletes with low perceptions of their competence, highly ego-oriented and perceived task-oriented sports success criteria in coaches and sport friends were more likely to dropout than athletes with other combinations of these factors.

ABSTRACT by Chloe Ruff

Article Information. Concannon, J., & Barrow, L. (2009). A cross-sectional study of engineering students' self-efficacy by gender, ethnicity, year, and transfer status. *Journal of Science Education & Technology*, *18*(2), 163-172. doi:10.1007/s10956-008-9141-3.

Motivation Keywords: self-efficacy, engineering

1. Why this article is interesting. Rather than study why female students leave engineering, the researchers have examined elements of self-efficacy that may help determine why students (male and female) choose to continue with their engineering major.
2. Background. The number of women in engineering majors has increased throughout the past decades, yet only 20% of current engineering students are women (p.134). Studies of self-efficacy in math and science have generally not found gender differences in pre-college students. However, studies of college students have had more conflicting results with some studies showing lower engineering self-efficacy, lower outcome expectations, and lower perceptions of ability to complete engineering requirements for women.
3. Purpose. This study used social-cognitive constructs to examine the intentions of undergraduate engineering students to persist in their engineering major. Specifically, this study was designed to examine the role played by gender in explaining social-cognitive predictors of persistence.
4. Method. The study was conducted at a Midwestern university and included 493 engineering students (424 men and 69 women) representing all engineering majors and all levels of the undergraduate engineering program. Students were administered the longitudinal assessment of engineering self-efficacy (LAESE), which is comprised of four subscales: engineering self-efficacy 1 (ESE1, measuring a person's confidence at reaching academic milestones focusing on curriculum and coursework), engineering self-efficacy 2 (ESE2, measuring a person's confidence at reaching academic milestones focusing on the engineering major in general), engineering career outcome expectations (COE), and coping self-efficacy (CSE). Separate multiple regression analyses were completed for the samples of male and female students to examine how the variables within the LAESE predicted persistence in the engineering students.
5. Results. The full model (ESE1, ESE2, COE, and CSE) accounted for 45% of the variance in women's persistence and 29% of the variance in men's persistence. However, for women only ESE1 (4.3%) and COE (5.2%) significantly and uniquely predicted variance in persistence. For men, only ESE2 (2.8%) and COE (5.4%) significantly and uniquely predicted variance in persistence.
6. Conclusions. The expectation that an engineering degree would lead to a career was an important reason for both genders to persist in engineering majors. A difference arose in how men and women viewed engineering self-efficacy. Women's persistence was related to engineering self-efficacy as defined by mastery of coursework ("I can succeed [make an A or a B] in an advanced engineering course." [p.143]). Whereas, men's persistence was related to engineering self-efficacy as defined by the completion of coursework (I can complete the math requirements for most engineering majors." [p.142]). The researchers suggest that the higher levels of stress and anxiety related to higher academic standards may make some women more inclined to switch majors. They also suggest that women undergraduate engineering students would benefit from having female advisors to increase levels of engineering self efficacy by providing a role model and by providing verbal persuasion to encourage students to persist even when they are not achieving the levels of academic success they hoped for.

ABSTRACT by Jennifer D. Snyder

Article Information. Nelson, R., & DeBacker, T. (2008). Achievement motivation in adolescents: The role of peer climate and best friends. *The Journal of Experimental Education*, *76*(2), 170–189.

Motivation Keywords: goal theory, motivation, self-efficacy, achievement motivation, achievement goals, achievement theory, peer climate, friends

1. Why this article is interesting. This article is interesting because it examines the significant impact of social relationships on student performance in the middle to high school levels. I think this article speaks volumes as far as showing how influenced students are by their social circles for forming opinions and identity at this age level.
2. Background. A lot of research has been done to understand achievement motivation from the social cognitive perspective. Researchers have looked at mastery and performance goals and self-efficacy impacts on motivation, as well as social goals impacting learning in school. Peer relationships have been reported to impact motivation as well. Maehr (1984) identified three types of meaning: individual goals, self awareness, and classroom environment possibilities. These three facets of meaning are said to be influenced by: available information, the learning environment, individual experiences, and a broader socio-cultural context.
3. Purpose. For this study, the researchers looked at goals and self-efficacy because of prior research that showed their importance in socio cognitive situations. The purpose of this study was to look at peer climate and the best friend relationship, because previous research about peer relationships has shown there may be an influence of these factors on a learner's beliefs and attitudes, and academic achievement.
4. Method. Questionnaires were given to students in a 40-minute session during their regularly scheduled science class. The self-report questionnaire assessed peer classroom climate, achievement-related beliefs and values of a best friend, achievement goals, social goals, and self-efficacy. Researchers conducted seven hierarchical regression analyses with the three achievement goals, the three social goals, and self-efficacy serving as criterion measures.
5. Results. (Reported verbatim) Peer class-climate and best friend variables accounted for significant variance in mastery goals. Significant individual predictors were grade level (negative), class belongingness (positive), and best friend's academic valuing (positive). Peer class-climate variables accounted for significant variance in performance-avoidance goals, with the only significant individual predictor being classmates' resistance to school norms (positive). Peer class-climate and best friend variables accounted for significant variance in social intimacy goals. Class belongingness and friendship quality were significant positive predictors. Peer class-climate and best friend variables accounted for significant variance in social approval goals. Classmates' resistance to school norms and friendship quality was a unique positive predictor. Peer class-climate and best friend variables accounted for significant variance in social responsibility goals. Significant positive predictors were class belongingness, best friend's academic valuing, and friendship qualities. Peer class-climate variables accounted for significant variance in self-efficacy. Grade level was a significant negative predictor and class belongingness was a unique positive predictor.
6. Conclusions. This article shows that social environments significantly influence students' motivation to learn. Peer climate variables and best friend variables showed a significant increase in intimacy, approval, responsibility goals, and mastery goals. Peer climate variables alone predicted the two performance goals and self-efficacy. Students who pursue performance goals and social-approval goals are concerned about how they are judged by others; therefore, a negative peer environment can be a problem for students like this. Class belongingness has a huge impact on motivation to learn, students who felt valued and respected in the classroom had high self-efficacy and mastery performance approach, intimacy, and responsibility goals all positively contributing to student achievement.

ABSTRACT by Krista Landon

Article Information. Standage, M. , Duda, J., & Ntoumanis, N. (2003). A model of contextual motivation in physical education: Using constructs from self-determination and achievement goal theories to predict physical activity intentions. *Journal of Educational Psychology, 95*(1), 97-110.

Motivation Keywords: physical education, achievement goal, motivation

1. Why this article is interesting. This article is interesting because it addresses how much physical activity secondary students engage in, outside of physical education (PE).
2. Background. It is important for our country to understand how we can decrease the percentage of child obesity rates and create healthier lifestyles. In earlier studies the relationship between intrinsic motivation and PE was strongly looked at without much regard for as to how autonomy, competence, and relatedness factored into intrinsic motivation. Therefore, this study aims to understand how self determination theory using autonomy, competence, and relatedness as well as achievement goal theory help motivate secondary aged students to engage in physical activity outside of physical education.
3. Purpose. Previous studies have not addressed the assumption that autonomy, competence, and relatedness must be fulfilled to foster intrinsic motivation with regards to PE. Therefore, the researchers hypothesized that "perceptions of a mastery climate would fulfill these needs and positive associations would emerge in their present study." Also that a performance climate can be deemed more controlling; leading them to believe that performance climate is negatively related to relatedness and autonomy but unrelated to competence. Also that the "cooperation, improvement, and choice, facets of a mastery environment would predict relatedness, competence and autonomy respectively." Lastly, they sought to assess the implications of the three facets of the social environment on students' motivation toward PE, namely the emphasis placed on task goals, emphasis placed on performance goals and the degree to which the environment supports autonomy.
4. Method. This experiment consisted of 328 children who were asked to respond to a multisection inventory. To determine the degree that the children thought the class to be either autonomous or controlling, the Origin Climate Questionnaire was used. Participants' perceptions of the motivational climate were assessed using the English version of the L' Echelle de Perception du Climat Motivational (EPCM). Perceived competence toward PE was assessed using the perceived competence subscale of the 18-item Intrinsic Motivation Inventory. Relatedness was assessed using the Acceptance subscale of the Need for Relatedness Scale. The participant's sense of autonomy was assessed using five items consequent of previous research assessing perceptions of autonomy in PE. Motivation toward PE was assessed by an adapted version of the SMS, based on self-determination theory. Intention to partake in leisure-time physical activity was assessed with three items used by previous researchers.
5. Results. Mastery and origin climate are positively and moderately associated with perceptions of autonomy, relatedness, and competence. However, performance climate was weakly and negatively related with all three variables. Autonomy, relatedness, and competence showed positive and moderate relationships with self determined motivation, weak to moderate positive relationships with introjected regulation, and weak to moderate negative relationships with amotivation. Lastly, intention to engage in physical activity was positively and moderately associated with self-determined motivation, weakly related to introjected regulation and negatively associated with amotivation.
6. Conclusions. Based on the findings of this study, one can determine that there is a need to increase and maintain involvement in physical activity. In order to increase such activity it is important that there is a thorough understanding of student motivation and motivation models. Given these findings the implications for teachers are as follows: teachers should aim to have class structures that are autonomy-supportive and mastery focused, as these concepts facilitate self-determined motivation.

ABSTRACT by Parastoo Mokri

Article Information. Bieschke, K., Bishop, R., & Garcia, V. (1993, August). A factor analysis of the research self-efficacy scale. Proceedings of the American Psychology Association 101st Annual Meeting. Toronto, Canada.

Motivation Keywords: Research Self-Efficacy Scale (RSES), social science research, research skills, self-efficacy, factor analysis

1. Why this article is interesting. This article was about the factor analysis of an instrument that measures research self-efficacy beliefs in learners and it has educational implications for improving the curricula to improve learners' research self-efficacy beliefs, it was interesting to me to see their method.
2. Background. Counseling psychology and counseling programs aim to train students to take on the path of science and research in their careers, however, students in these programs usually express ambivalence towards research process. The authors hypothesize that based on Bandura's self-efficacy theory these students probably lack the efficacy belief in their ability to conduct research and set out to investigate this hypothesis. They plan to use the results of this study to promote a more research oriented curricula for counseling programs.
3. Purpose. The purpose of this study was to apply Bandura's theory of self-efficacy to the research training process and explore internal variables that are important for research. The objective of this paper was to examine the factor structure of the RSES and find out a coherent factor representation for RSES.
4. Method. The authors analyzed the data collected from the administration of RSES to 177 doctoral students in a large mid-western university. Subjects were asked to rate their ability to perform a behavior related to conducting research ranging from "0 = no confidence" to "100= complete confidence". The sample represented a broad range of disciplines including Humanities, Social Sciences, Biological Sciences and Physical Sciences. The participants had been enrolled in their programs for an average of 3 years. A principal component factor analysis was performed since the authors' expectation that the factors are intercorrelated.
5. Results. Through principal component analysis, the authors initially arrived at 11 factors which were reduced to a four factor model for RSES: (1) Conceptualization; (2) Early Stages; (3) Presenting the Results; and (4) Implementation. The first factor, Conceptualization, had 16 items with factor loadings ranging from .41 to .79. The authors believe that this factor represents the fundamental stages of thought formation about a particular research area which relates to identification of what area deserves further research based on current literature. The second factor, Implementation, had 20 items with factor loadings ranging from .31 to .91. The authors believe this factor represents what students need to do (behavioral tasks such as using the computer, collecting data, etc.) to conduct and complete a research project. The third factor, Early Tasks, had 5 factors with factor loadings ranging from .42 to .63. This factor relates to the ability to brainstorm and find a research idea. Finally, the fourth factor, Presenting the Results, had eight items with factor loadings ranging from .45 to .88 which represents organizing and presenting the results in the oral and written formats.
6. Conclusions. RSES has a coherent factor structure for a sample of doctoral students from various disciplines. This coherency contributes to the scale's reliability for measuring research self-efficacy beliefs that is helpful in predicting students' success in research after graduation. It can also help program directors to identify areas that need improvement through research training curricula.

ABSTRACT by Parhum Delgoshaei

Article Information. Carberry, A., Lee, H., & Ohland, M. (2010). Measuring engineering design self-efficacy. *Journal of Engineering Education, 99*(1), 34-04.

Motivation Keywords: self-efficacy, engineering design, assessment

1. Why this article is interesting. This article is interesting since it demonstrates how self-efficacy in a specific field such as engineering design can be measured with good validity characteristics and how strongly correlated the four task-specific self-concepts are (self-efficacy, motivation, outcome expectancy, anxiety [to a lesser degree]) for engineering design as the self-efficacy theory predicts.
2. Background. As part of their learning experience, engineering students have learning experiences involving design tasks. The engineering design self-efficacy instrument aims to predict differences in design self-efficacy. It is expected that as the participants self-reported experiences varies, their four sources of self-efficacy (mastery experiences, vicarious experiences, verbal and social persuasions and physiological experiences) vary and as a result, their design self-efficacy score as measured by this instrument varies.
3. Purpose. Validating the instrument in three directions: how well it the instrument results are reflective of familiarity and application of the multi-step design process on four task-specific self-concepts described earlier; how well it differentiates between students with varying degrees of self-efficacy, and how well the results align with self-efficacy theory which stipulates that self-efficacy for a given task correlates with other task-specific self-concepts: motivation, expectancy and anxiety.
4. Method. An online instrument was developed and administered to a subset of engineering students at a small private institution to collect their attitudes about the eight individual engineering education design steps. The scale consisted of nine Likert-type items (eight steps of the design process and holistic item on the design process as whole) scored on a 100-point range with ten-units intervals (due to students familiarity with this scoring system in school). In addition, a self-identified “engineering experience” score was computed based on demographic information pertaining to age, education, profession, and engineering experience and was used as a criterion to group participants into three groups oh high, intermediate and low experience.
Evidence of content, construct, and criterion validity were collected. For each step in the engineering design process (extracted from a model agreed upon by the experts), an item was developed to increase content validity. Evidence of criterion validity was collected by asking the participants’ to self-report their engineering experience by selecting the level (student, engineer, professor, …) they are involved with engineering and by observing if the results collected by the instrument supports this difference in experience.
5. Results. The authors report high internal reliability of the sub-scales in design self-efficacy (alpha = 0.967), motivation (alpha = 0.955), outcome expectancy (alpha = 0.967) and anxiety (alpha = 0.940). The authors report statistically significant differences between groups with varying degrees of engineering experience (low, intermediate and high) in Engineering Design Process (EDP) factor score, which is the calibrated average of the scores for eight individual engineering design process steps in each of the four task-specific self-concepts. This validates the instruments measurements based on the self-efficacy theory.
6. Conclusions. By gaining a better understanding of student design self-efficacy through using this and similar instruments, educators can measure student “will” or “drive” which complements measurements to assess their cognitive gains. In addition, by investigating how self-efficacy affects learning, intervention strategies can be introduced to improve learning.

ABSTRACT by Cory Epler

Article Information. Ravidran, B., Greene, B. A., & DeBacker, T. K. (2005). Predicting preservice teachers' cognitive engagement with goals and epistemological beliefs. *The Journal of Educational Research, 98*(4), 222-232.

Motivation Keywords: cognitive engagement, epistemological beliefs

1. Why this article is interesting. There is a lack of research linking motivation and beliefs of pre-service teachers. The authors emphasize a need to help teacher educators prepare pre-service teachers with knowledge and skills to be successful in the classroom.
2. Background. Researchers continue to examine how students approach learning and how those approaches impact learning outcomes. The authors point out the large body of research that demonstrates how achievement goals influence cognitive engagement. Previous research has found a positive relationship between learning goals and level of processing. Additionally, variations in cognitive engagement are related to differences in epistemological beliefs. This is important for teacher educators to consider because beliefs about knowledge and cognitive engagement determine the pedagogical practices pre-service teachers adopt.
3. Purpose. The authors examined achievement goals and epistemological beliefs as antecedents important for predicting cognitive engagement and application of learning. Specifically, the purpose of this study was to examine the relationship among achievement goals, epistemological beliefs, cognitive engagement, and performance on a complex learning task.
4. Method. The population was 101 pre-service teachers enrolled in an educational psychology course. Participants completed two self-report instruments. The Epistemological Beliefs Inventory measured participants' beliefs about learning, and a modified version of the Motivation and Strategy Use Survey measured participants' achievement goals and cognitive engagement. Performance on the application portion of an exam was used to measure application learning.
5. Results. Mastery goals correlated positively with meaningful engagement and performance goals. Additionally, there was a strong positive correlation between performance goals and shallow processing. In regards to epistemological beliefs, performance goals correlated with innate ability and simple knowledge. Mastery goals did not correlate with any belief variables. Next, researchers completed multiple regression analyses. In the first analysis, meaningful cognitive engagement was regressed on mastery goals, performance goals, and the epistemological beliefs variables. The combination accounted for 32% of the variance, and there were three statistically significant betas (learning goals, belief in certain knowledge, and belief in omniscient authority). In the second regression analysis, shallow processing was regressed on learning goals and beliefs. The results supported the hypothesis that the best predictors for shallow engagement were performance goals and simple knowledge beliefs. In regards to application learning, hierarchical regression results indicated that cognitive engagement does explain some variance (8.2%) in application learning. The addition of learning goals and beliefs did not result in a significant increase in variance of application learning.
6. Conclusions. The study provides evidence of the relationship between epistemological beliefs and achievement goals, and it helps explain the combinations of beliefs and goals that account for variance in engagement. Because shallow cognitive engagement is influenced by performance goals, teacher educators should promote mastery goals rather than performance goals. Furthermore, the findings suggest that teacher educators should challenge pre-service teachers' naïve epistemological beliefs as naïve beliefs impact meaningful engagement and complex learning. By promoting methods that advocate meaningful engagement (for example, learning strategies), teacher educators can help pre-service teachers develop more sophisticated epistemological beliefs that are often a prerequisite for critical thinking. Additionally, pre-service teachers with more sophisticated beliefs can promote the development of similar beliefs within their students.

ABSTRACT by Stephen Biscotte

Article Information. Pepper, C. (2009). Problem based learning in science. *Issues in Educational Research, 19*(2), 128-141.

Motivation Keywords: interest, flow, value

1. Why this article is interesting. The authors conducted a qualitative study to collect faculty and student opinions about the problem-based learning (PBL) process in the medical school curriculum, focusing specifically on enjoyment or lack there of.
2. Background. PBL is an approach to learning that is characterized by flexibility and diversity. Students are immersed in solving content related problems in a real-world context. Much research has been done on the success of a student-centered curriculum on achievement, interest/engagement, and enhanced development of problem-solving skills. Research shows that there is a greater likelihood of deep learning in a PBL curriculum. However, there is little literature on student enjoyment in the process.
3. Purpose. The purpose of the study was to address three key questions: 1) how did the unit coordinators perceive the implementation of PBL, 2) what did students like and dislike about PBL, and 3) did implementing PBL into these units enhance the student learning experience through student enjoyment and flow.
4. Method. Over the course of two years, biology, ecology, and economics students at a Western Australian university were given surveys following the completion of 3-6 week PBL laboratory units. A total of 152 students participated in the study. The surveys collected information on student likes and dislikes about the PBL process. The faculty also participated in semi-structured interviews to collect narratives on implementing a PBL curriculum. Since these interviews do not tie to motivation, they will not be discussed further.
5. Results. Students identified various likes and dislikes about the program. According to the coded themes, the students enjoyed working in faculty supported peer groups, giving presentations, and gathering information on topics of their own personal or group interest. Students disliked the lack of faculty direction and group/presentation issues. The PBL process provided great stress, confusion, and anxiety, limiting the opportunities for flow or microflow moments. However, the students also liked overcoming the challenges of PBL, potentially creating flow opportunities.
6. Conclusions. Generally, faculty and students had a positive experience with the PBL curriculum. Faculty recognized the challenges to providing students with the right balance between providing support and stepping back from the process to enable to the students to achieve flow. Student opinions of the PBL curriculum varied from enjoyment (flow) to strong resentment. Student responses were mostly positive and consistent over the two years. Students enjoyed the chance to work together to share knowledge, the flexibility in choosing topics, and the modest workload. According to the study, the learning experience and opportunity for flow was enhanced through PBL despite the challenges imposed and the anxiety that comes with those challenges.

ABSTRACT by Luka Ngoyi

Article Information. Ben-Zeev, T., Fein, S., & Inzlicht, M. (2005). Arousal and stereotype threat. Journal of Experimental Social Psychology 41 , 174-181.

Motivation Keywords: Stereotype threat; Arousal; Social facilitation; Misattribution

1.Why this article is interesting. The article interested me because it tested the hypotheses that stereotype threat triggers arousal, and that attributions about that arousal could moderate the effects of stereotype threat on performance.
2.Background. To examine whether arousal is triggered by stereotype threat, two experiments were conducted in which female participants were asked to take a math test under conditions of stereotype threat or not. A key aspect of social facilitation theory is that arousal facilitates individuals performance on easy well-learned tasks and impairs performance on difficult or novel tasks. Stereotype threat effects typically emerge when individuals are attempting to perform tasks that are very difficult for them, which lie at the frontier of individuals knowledge and abilities.
3. Purpose. To examine whether arousal is triggered by stereotype threat.
4. Method. Two experiments were conducted. For this study, therefore, undergraduate students from an introductory psychology class were selected who had indicated on a questionnaire completed several weeks earlier that doing well in courses concerning math was important to them (i.e., they provided a rating of four or greater on a 7-point scale, ranging from ‘‘not at all important’’ to ‘‘extremely important’’). Thirty-nine female students from this sample participated in the study to receive credit for their introductory psychology class. Although the focus of the study was on the effects of stereotype threat on women, male students were included in the experimental sessions to heighten the potential for stereotype threat ; a total of 20 male students from the same population participated in this study. Because the default for women who care about math and who are confronted with a very difficult math test in a mixed-sex setting is the experience of stereotype threat, no information about gender differences to participants in the threat condition was provided.
5. Results.
In Study 1, women under stereotype threat performed better on an easy threat-irrelevant task, but worse on a difficult threat-irrelevant task than women not under threat. In Study 2, threatened women underperformed on a math test, but this underperformance was attenuated for women directed to misattribute their arousal. These results suggest that arousal—and how arousal is attributed—may play an important role in the debilitating effects of stereotype threat.
6. Conclusions. The findings of the studies support the hypothesis that stereotype threat triggers arousal, and that this arousal can play an important role in performance. In Study 1, women under threat performed better on an easy task and worse on a hard task, relative to their counterparts who were not under threat—a result suggesting the role of arousal. In Study 2, performance deficits associated with stereotype threat were attenuated when women were given an opportunity to misattribute their arousal to an external source. Taken together, both of these experiments suggest that arousal may have an important role as a mediator of threatening intellectual environments.

ABSTRACT by Britta Petrich

Article Information. Weiner, B., Figueroa-Munoz, A., & Kakihara, C. (1991). The goals of excuses and communication strategies related to causal perceptions. *PSBS, 17*(1), 4-13.

Motivation Keywords: attribution theory, achievement, expectancy, and communication

1. Why this article is interesting. This article is interesting because it links the goals of excuses and communication strategies related to causal perceptions to attribution theory. Further, the investigation was based on three experiments, which resulted in a number of empirical findings with both descriptive and theoretical value.
2. Background. The authors of this study claim attribution theory suggests three conscious goals of excuse giving: to preserve the self-esteem, minimize the anger, and maintain the positive expectancies of the excuse receiver. Based on earlier studies by Weiner, there are three properties of perceived causality related to attribution theory necessary to understand before reading this article. Locus, controllability, and stability are the three properties; causes can be defined as internal or external, controllable or uncontrollable.
3. Purpose. The purpose of this article was to examine whether or not the initial claim made about goals of excuses is accurate and reliable. Accordingly, the assertions presented "concerning public excuses were tested in three investigations reported in this article" (p. 6).
4. Method. Each experiment used between 59-97 participants at the University of California, Los Angeles enrolled in introductory psychology. Each experiment required the participant to read instructions and/or answer questions. Two of the experiments manipulated goals of excuse giving. All participants were tested individually or in groups ranging from two to eight persons. Anonymity was ensured in all cases by requesting participants' leave their names off responses and not share answers with other participants.
5. Results. Results of excuse giving were categorized into nine categories: parents, friends, illness, other commitment, transportation, work/study, forget/negligence, intent, miscellaneous. These categories were cross-examined with the causes: maintaining esteem, reducing anger, and increasing expectancy. Ultimately, the most commonly used excuse was "other commitment." The causes were then classified under the three attributional dimensions: locus, controllability, and stability. Across the three experiments, a substantial number of respondents (29%, 38%, and 36%) had to be eliminated because they reported a lie rather than an excuse.
6. Conclusions. In addition to discovering that there are three goals of public excuses that can be incorporated within an attributional analysis, the authors concluded at a more theoretical level, "that excuses could be classified according to the properties of locus, controllability, and stability" (p. 12), which correlates with attribution theory. Finally, the data in this article suggests that excuse givers follow simple rules when searching for an excuse. One limitation of this study is that only one particular setting for excuses was examined – when there was a false communication to another. Therefore, one must be cautious about potential generalizations of the empirical and theoretical findings that were a result of this study. Future research may consider examining different settings in which excuses are used.

ABSTRACT by Joseph L. Salmon

Article Information. Aronson, J., & Fried, C. B. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, *38*, 113-125.

Motivation Keywords: intelligence, disidentification, “saying-is-believing effect”, incremental intelligence, malleable, entity intelligence

1. Why this article is interesting. This article examines the issue of whether or not intelligence is a fixed capacity or malleable through effort. The implication of the article is that intelligence theory can be a threat to African American college students as well as other ethnicities. I have worked in schools that have a large percentage of African American children who could be affected by this threat, and I have a strong desire to help students overcome this problem. Although these schools have been elementary schools, the findings from these articles can be generalized to this setting.
2. Background. Stereotype threat seems to undermine achievement in two ways, it induces anxiety in test-taking situations and produces *disidentification*. The article provides examples of performance goals which are associated with an *entity* view of intelligence and learning goals which are associated with an *incremental* view of intelligence.
3. Purpose. The purpose of this study was to persuade students to adopt the incremental view of intelligence to see if this would affect their academic engagement and achievement levels. They utilized a theory which employs the “saying-is-believing effect” and integrated this into the design of the study. This was designed to build resistance as individuals become more able to counter information that is not consistent with their new belief system.
4. Method. 109 African-Americans and Caucasians participated in the study. One group received an intervention which was a pen pal program designed to teach the theory that intelligence is malleable. The second intervention was more entity oriented, and the third group did not receive an intervention. After a few days, the participants were given a survey to determine their beliefs about intelligence, ratings of their identification with academics, grades, and statements to ascertain their beliefs about stereotypes. The hypothesis was that the malleable group would view intelligence as more incremental and report more academic identification, enjoyment, better grades, and less stereotype threat. The true purpose of the letter was to convince the writers (participants) in the first group that intelligence is malleable.
5. Results. African American students changed their attitudes about intelligence. They reported enjoying and valuing academics, and they received higher grades. . For white students, there was some change, but not as much, and the change did not persist. White students’ grades improved but they did not report increases in academic identification and enjoyment.
6. Conclusions. This study provides data to show significance for the effect of this belief on grades, enjoyment, and identification. Schools should consider teaching students this theory of intelligence in order to combat stereotypes which work against students and cause them to disidentify. There are many strategies that could utilize the “saying-is-believing effect” such as writing to other students about incremental intelligence. . Because of the emphasis on testing, the need for relating this knowledge about intelligence is extremely important. This could help individuals with their anxious feelings and create more enjoyment and success.

ABSTRACT by Laura Lester

Article Information. Gambrell, L. B. & Marinak, B. A. (2010). Reading motivation: Exploring the elementary gender gap. *Literacy Research and Instruction, 49*, 129-141.

Motivation Keywords: elementary, reading, motivation, gender, literacy

1. Why this article is interesting. This article is interesting because it focuses on the gender differences of reading motivation for elementary students. Specifically, the article explored the gender gap in third graders. This article contains important information for teachers, as it focuses on two motivation constructs: self-concept and value for reading.
2. Background. Motivation has been found my many researchers to play a key role in literacy development, as students may never reach their true potential without motivation. As many recent studies have indicated, gender is an important variable associated with reading motivation. This study examined gender differences in reading, using the Motivation to Read Profile (MRP), based on expectancy value theory. The MRP examined the motivation constructs of self concept and value.
3. Purpose. The purpose of this study was to investigate possible gender differences in reading motivation for third grade average readers.
4. Method. Participants consisted of 288 third grade students from three elementary schools in a large suburban school district. Instruments included two components of the MRP, a reading survey and conversational interview. Students responded to a 20 question survey, using a 1-4 Likert scale, administered by a reading specialist. The district did not permit administration of the conversational interview. Data analysis involved descriptive statistics and individual sample tests based on the MRP total score and subscale scores. *P* values were generated and effect size was computed using the difference of adjusted means, between boys and girls, on MRP scores divided by standard deviation.
5. Results. Analyses of the data on the total score for motivation to read revealed a statistically significant difference for gender, indicating that girls were more motivated to read than boys. Examination of self-concept revealed no significant difference. However, examination of value of reading did reveal a statistically significant difference, indicating that girls valued reading more than boys.
6. Conclusions. The analysis of the MRP found that average third grade girls and boys have equal self confidence for reading. However, boys who are average readers were found to be less motivated to read and valued reading less than girls. These results are important because although motivation with respect to self-concept was similar amongst boys and girls, boys were found to place less value on reading. Therefore, the motivation to read for boys is strongly related to the value they place on reading.

ABSTRACT by Jennifer D. Snyder

Article Information. Bus, A., Pelligrini, A., & vanIJzendoorn, M. (1995). Joint book reading Makes For Success in Learning To Read: A Meta-Analysis on Intergenerational Transmission of Literacy. *Review of Educational Research, 65,* 1.

Motivation Keywords: achievement, education, psychology

1. Why this article is interesting. This article is interesting to me because it shows how much our literacy achievement and motivation to read is in fact affected by components in our early environments.
2. Background. Much has been implicated in regard to children who are read to and children who are not read to before they enter the schooling atmosphere. This article performs a meta-analysis of this impact on literacy achievement. Success and failure in the early grades can often pave the way for the student's future goals, achievement expectations, and motivation to learn.
3. Purpose. The purpose of this review was to look at how often preschoolers were read to as children in order to determine things like language, literacy, and reading achievement in the preschooler later on in their education.
4. Method. The following were taken into account when screening and selecting studies for the review: quality of reading, socioeconomic status, not using self-reports as a means of gathering information, children's age at which the book reading data are gathered, assuming strong correlations between book reading parents and them having more resources at home (such as children's books). The major databases in the fields of education and psychology—psycLIT, Eric, and Dissertation Abstracts International were searched. Earlier Review Papers (Cochran-Smith, 1983; Mason&Allen, 1986; Scarborough & Dobrich, 1994; Teale, 1981) were taken as a source of data. The "snowball" method was used (they searched the references of the collected papers for additional titles finding 29 studies from which pertinent data could be derived, the number of unpublished papers was 5). A quantitative meta-analysis of the relation between book reading to toddlers and preschoolers at home and several outcome measures was used.
5. Results. The authors assert that their results support their hypothesis that parent-preschooler book reading is related to outcome measures such as language growth, emergent literacy, and reading achievement The quantitative results give straightforward support for family literacy programs and the need to further explore the aspects of shared reading that are most beneficial. There are hardly any studies with negative effects, indicating that book reading has a positive effect on outcome measures.
6. Conclusions. This article shows that social and familial environments do significantly influence the reading achievement of students in primary grades. I assert that this also sets the stage for students in their educational motivations, achievements, identities, and goals. Students who struggle to read do so because the foundation for literacy was never laid at home, the negative implications for this are long-lasting.

ABSTRACT by Lauren Bryant

Article Information. Gonida, E., Kiosseoglou, G., & Leondari, A. (2006). Implicit theories of intelligence, perceived academic competence, and school achievement: Testing alternative models. *American Journal of Psychology, 119*(2), 223-238.

Motivation Keywords: Implicit theories of intelligence, achievement

1. Why this article is interesting. This study tested three alternative causal models to Dweck's model of self-theories of intelligence, perceived competence, and academic achievement.
2. Background. According to Dweck's model, self-theories of intelligence involve a belief that intelligence is either fixed or malleable. This belief will then impact a number of other variables, including perceived academic competence and achievement. Students with a malleable view will view learning tasks as opportunities to increase their abilities. For this reason, they will work toward deeper levels of understanding, and be less likely to shy away from tasks to avoid failure, than their fixed belief counterparts. This will impact achievement, with malleable students generally performing better. This, in turn, impacts perceived competence. Students with a fixed view will experience a negative impact on their perceived competence after failure, whereas students with a malleable view will have more resilient perceived competence. While research has supported Dweck's model, it has been assumed that the directionality of Dweck's model is correct.
3. Purpose. The purpose of this study is two-fold: first, to test the direction of the relationship of self-theories of intelligence, perceived competence, and achievement; and second, to explore the development of self-theories of intelligence during adolescence. Three alternative models were tested.
Implicit Theory of Intelligence → Perceived Competence → Achievement
Achievement → Perceived Competence → Implicit Theory of Intelligence
Implicit Theory of Intelligence → Achievement → Perceived Competence
4. Method. Two hundred 232 Greek fifth and sixth graders participated in the study. Participants were asked to complete two measures: Dweck's Inventory of self-theories of intelligence, and a perceived academic competence measure. The researchers obtained grades from the school to serve as an achievement measure. Measures were taken twice, one year apart.
5. Results. Cross-lagged regression analysis was conducted on the data. According to the results, the second hypothesized model held true – it was found that academic achievement was a cause of self-theories of intelligence, mediated by perceived competence. Results also showed that the participants moved toward the adoption of more malleable beliefs over the course of the year, which is counter to studies in the U.S. that found that students begin with a more malleable view and adopt fixed views over time. The researchers also found that perceived academic competence declined over the year, with the exception of high-achievers.
6. Conclusions. Results from this study contradict the directionality of Dweck's model. Instead of finding the self-theories were the outcome of achievement, mediated by perceived academic competence. The researchers did not appear to conduct a mediator analysis and it is also unclear why the possibility of a cyclical relationship was not considered. It is interesting to see that achievement affects self-theories of intelligence the same way it affects interest.

ABSTRACT by Chloe Ruff

Article Information. Case, J., & Jawitz, J. (2004). Using situated cognition Theory in Researching Student Experience of the Workplace. *Journal of Research in Science Teaching*, *41*(5), 415-431.

Motivation Keywords: identity development

1. Why this article is interesting. This article helped me understand how situated cognition and the role of the legitimate peripheral participant (Lave & Wenger, 1991) can be helpful when exploring issues of race and gender in STEM fields.
2. Background. This research builds on feminist thinking and situated cognition within an engineering context in South Africa. Feminist research relates the low numbers of women in STEM fields to the socially constructed nature of those fields which have tended to marginalize women. Situated cognition conceptualizes learning as a fundamental part of the process of identity development – learning is not just the acquisition of knowledge, but the process of developing identity within a group through participation in legitimate group activities. Therefore, if women or people of color are not given access to legitimate activities within a work environment they will be less likely to identify or continue with a career in STEM fields.
3. Purpose. The study sought to examine key constructs of situated cognition within the context of the "vacation work" of engineering students. Four research questions were developed asking: a) how students experienced the "community of practice," b) if the students' activities in the workplace could be considered "legitimate peripheral participation," c) how students responded to denials of access within the workplace, and d) how the students' identity as an engineer-to-be was impacted by their experience in the workplace.
4. Method. Sixteen chemical engineering students from the University of Cape Town were interviewed in two separate one-hour focus groups (group 1= 7 students and group 2 = 9 students) the groups included a mix of black and white women and black men. Three civil engineering students (one white woman, one black woman, and one black man) were interviewed separately for one hour each. All of the students were asked to describe their experiences during their vacation work. All discussions were audiorecorded and then transcribed and analyzed.
5. Results. The findings are broken down by research question. Community of practice: Much of the time in the interviews and focus groups was spent discussing interactions within the vacation work setting. The students noted differences in how they interacted with nonprofessional staff (often negative) and engineering (often positive). At times both gender and race played a role in the negative interactions. Engineering mentors were noted as helping students adjust to the work environment. Nature of work: Students described both meaningless (generally menial) work and meaningful work. Often students accepted some menial work as part of the learning process, but some felt that they were only given work that no one else wanted. Gender differences were brought up with students describing how women were given easier jobs and more help in some contexts and physically dangerous jobs in other contexts. Response to the denial of access: Students accepted some denial of access, but also felt that they were placed in a difficult position at times where pushing for more access would be seen as making trouble. Identity formation: The experiences helped many of the students to begin viewing themselves as engineers with a clearer expectation of the type of work and workplaces in which they would be willing to work.
6. Conclusions. The study shows how the concepts of situated cognition can be applied to the study of gender and race within STEM context. The study also points out how individuals (mentors) within the community of practice helped some students work through their difficulties and develop a stronger engineering identity.

ABSTRACT by Rebekah Brook

Article Information. Alexandris, K., Tsorbatzoudis, C., & Grouios, G. (2002). Perceived constraints on recreational sport participation: Investigating their relationship with intrinsic motivation, extrinsic motivation and amotivation. *Journal of Leisure Research, 34*(3), 233-252.

Motivation Keywords: Sport motivation, intrapersonal constraints, recreational sport participation

1. Why this article is interesting. I found this article interesting as it examined how intrapersonal, interpersonal, and structural constraints affect motivation which in turn affects leisure sport participation.
2. Background. Literature into constraints classifies constraints into three categories: 1) intrapersonal – are internal related to individual psychological states and attributes; 2) interpersonal – results from interactions between people; and 3) structural – external related to unavailability of required resources. The negotiation through these constraints rather than the absence leads people to participate. The role of motivation in this process has been largely neglected, and the research has produced results that suggested that motivation interacts with negotiation more than it does with participation. The researchers concluded that a higher level of motivation to participate does not lead to reduction in perception of constraints. Motivation is divided into three main types: 1) intrinsic – doing an activity for the pleasure and satisfaction derived from doing that activity; 2) extrinsic – doing an activity as a means to an end; and 3) amotivation – absence of motivation and may lead to drop out. Vallerand and Loiser (1999) suggested a motivational sequence “social factors » psychological mediators » types of motivation » behavioral consequences” which has been adapted for the use in constraints to “constraints » motivation » participation and subsequent aspects”. However, no empirical studies investigated the influence of perceived constraints on intrinsic, extrinsic, and amotivation.
3. Purpose. There were two research questions addressed in this study. The first was to investigate the degree to which intrapersonal, interpersonal, and structural constraints influence intrinsic, extrinsic and amotivation. The second was to test the relationship between motivation and frequency of sport participation. The researchers hypothesized that some constraint dimensions would operate as psychological mediators and act as antecedents of motivation.
4. Method. Potential participants were selected by randomly choosing every fifth house on six streets in a middle socioeconomic area in Thessaloniki, Greece. Of the 600 people contacted 450 complete the questionnaires. Of these 450, 257 had participated in a least one sporting activity in the last 12 months and were use as the sample for the study. Fifty-five percent of the sample were women, 45 percent men with a mean age of 31 years. The participants completed a leisure scale measure developed by Carroll and Alexandris (1997), the Sport Motivation Scale.
5. Results. Individual/psychological dimension was significant in predicting amotivation, intrinsic motivation, but not extrinsic motivation. People that participated in sport activities daily were lower in amotivation and higher in intrinsic and extrinsic motivation than all other participants. Weekly participants were lower in amotivation and higher in intrinsic and extrinsic motivation than monthly and less than monthly participants.
6. Conclusions. The results provided evidence that intrapersonal constraints interact with motivational dimensions and act as psychological mediators of amotivation and intrinsic motivation. The results also suggested that elements of intrinsic motivation and amotivation might be intervening factors between intrapersonal constraints and behavioral actions.

ABSTRACT by Ralph E. Cornwell Jr.

Article Information. Bruening, J., (2004) Coaching differences: A case study of 4 African American Women Student-Athletes. *Journal of Strength and Conditioning Research*, *18*(2), 242-251.

Motivation Keywords: athletic experience, coaching influence, stereotypes

1. Why this article is interesting. This study examines the role a coach plays in the development of African American women student/athletes in sports, as well as life experiences.
2. Background. Data shows the African American student/athlete may be the most overlooked segment of a National Collegiate Athletic Association program. A far greater amount of research has focused on the African American male student/athlete. With this in mind there seems to be little attention centered on African American females and their experiences as student/athletes.
3. Purpose. The purpose of this study was to investigate experiences of African American female student/athletes and the role their coaches play in their experiences.
4. Method. The setting was a large Midwest University predominately white and known for successful sport programs at the Division I level. The research method would be classified as qualitative. Data was gathered by background questionnaires, focus groups, surveys, and in depth individual interviews. Once all the data was collected 4 African-American student/athletes were selected to represent their group based on age and diversity of their sport. The sports were volleyball, track and field, crew and cross country. The 4 athletes went through individual interviews with the emphasis placed on the roles of their sport coaches and the effect on their college experiences.
5. Results. Coaches play a significant role in the experiences of the student/athletes, both positively and negatively. The females reported that they felt gender and racial bias at times. The researchers formulated a definition of a good coach, including: establishing a safe environment for athletes, being aware of racial diversity, and being tolerant and understanding our differences.
6. Conclusions. The study did demonstrate the power sport coaches have over their athletes' experiences; being held in such a high position of authority. Based on data collected coaches could make the student/athletes experience for African-American females positive or negative based on their knowledge of diversity of the particular sport coach.

ABSTRACT by Parastoo Mokri

Article Information. Nenniger, P., van den Brink, K. & Bissbort, D. (2009). On a differential explanation of self-direction in motivating learning environments. In M. Wosnitza, S. A. Karabenick, A. Efklides & P. Nenniger (Eds.). *Contemporary Motivation Research: From global to local perspectives*. pp. 147-166.

Motivation Keywords: self-directed learning, self-regulated learning, metacognitive processes, motivational processes, factor analysis, canonical correlation

1. Why this article is interesting. This article discusses two self-report questionnaires and studies the effect of self-directed motivation in academic settings which closely relates to my research interest.
2. Background. Self-directed learning involves the motivational, emotional and cognitive views of learning from the perspective of an autonomous and independent learner. Recently, self-directed learning has been the focus of many researchers however, it has been usually addressed in specific contexts as well as being mainly discussed as it relates to metacognition, use of strategies and achievement-oriented motivation. A comprehensive view of self-directed learning which goes beyond the disciplinary differences is needed.
3. Purpose. This paper addresses three research questions: 1) Straka's two-shell model defines self-directed learning as the interaction between learner's internal conditions with the environmental conditions; what are the constructs and concepts related to this model which are relevant to others' conceptualization of learning namely Entwistle's "approaches to learning". 2) What constructs form Entwistle's approaches to learning? 3) How do the constructs explaining "self-directed learning" and "approaches to learning" intersect?
4. Method. The sample for this study consisted of 275 computer science students from five public universities in Germany. These students had a mean age of 24 years, on the third, forth or fifth year of their graduate studies and 18% of them were females. All participants were asked to complete two questionnaires online. The BEMSEL-HIS questionnaire (Motivated Self-Directed Learning- An Instrument for Measurement at Higher Education), measures cognition, metacognition, motivation and evaluation. The IPA-u questionnaire consists of 63 items measuring three motivational learning components of approaches to learning (intrinsic, extrinsic and achievement) and learning strategies. The results of the questionnaires were analyzed using factor analysis method to find out which constructs relate to "self-directed learning" and "approaches to learning" and the amount of their variance explained by each of the related factors. Finally, canonical correlation was performed to find out the amount of intersection between the two concepts and the weight of the constructs within each concept that explain shared variance between the concepts.
5. Results. Factor analysis revealed that cognitive control along with metacognition and evaluation explained the highest percentage of variance of self-directed learning (9%) while motivational control, sequencing strategies and personal attribution explain the least percentage of variance (6%, 5 % and 4 % respectively). Furthermore, memorization-understanding, deep strategies, extrinsic motivation, intrinsic motivation and achievement motivation and strategies explained the variance of "approaches to learning" almost equally (around 8% with the exception of the first construct, 12%). There is a considerable amount of intersection between the two concepts as it is revealed by canonical correlation.
6. Conclusions. Self-directed learning and approaches to learning share common motivational and regulatory processes. The constructs of each conceptualization intersect with one another and explain a large portion (64%) of the common variance between the two concepts.

ABSTRACT by Krista Landon

Article Information. Yopyk, D., & Prentice, D. (2005). Am I an athlete or a student? Identity salience and stereotype threat in student-athletes. *Basic and Applied Social Psychology, 27*(4), 329-336.

Motivation Keywords: Identity salience, stereotype threat, athletes

1. Why this article is interesting. This article is interesting because it studies the effect stereotype threats have on athlete's performance, during challenging tasks.
2. Background. Many people possess several different social identities that can be the target of conflicting stereotypes. For example in this article they focus on the role of being both a student and an athlete and how each of these identities can affect their performance. This research examines the role of these competing identities in the academic lives of student-athletes.
3. Purpose. The researchers' hypotheses were guided by previous research in regards to stereotype threats. However, the previous studies have not addressed the assumption that -multiple identities can affect the performance of student-athletes. Therefore the researchers hypothesized in their first study that when "primed with their athlete identity, student athletes would perform less well on the math test and have more negative academic self regard than participants primed with their student identity." They also hypothesized that student-athletes would have "more negative academic self-regard when primed with their athlete identity or with no identity than when primed with their student identity." In the second study the researchers wanted more direct evidence for a casual link between task performance and identity salience. They then hypothesized "that a self rating inventory would elicit their athlete identity while a math test would elicit their student identity."
4. Method. Using student athletes from Princeton University, participants completed a demographic questionnaire, then with random assignment some completed a questionnaire that primed their athletic identity, student identity or no identity. Those primed for athletic identity were asked to think about their last athletic competition, while those primed with student identity were asked to write about their last academic success, and those with no identity were asked to give explicit directions on how to get from their dorm room to the main library. This was all followed by a 30-item Self-Rating Scale. For the second study each participant received a questionnaire, depending on the experimental conditions as mentioned above. After completing the given questionnaire, all participants received a second questionnaire, in which they were asked to fill in letters in 20 word fragments to make up words.
5. Results. In the first study athletes primed with their athlete identity reported significantly lower academic self-regard than did athletes primed with their student identity. Athletes primed with no identity reported lower academic self regard than did athletes primed with their student identity. There was no difference between athlete-prime and no prime conditions. This information led researchers to believe that their evidence from this study supported the differential effects of identity salience on test performance for athletes. In the second study participants generated more athlete-related word completions if they completed a self-rating inventory than if they completed a math test, and more student related word completion if they completed a math test than if they completed a self-rating inventory.
6. Conclusions. Based on the findings of this study, the evidence suggests that student-athletes assumed different identities, depending on the task at hand. It also suggests that social self is comprised of many different identities "each with its own implications for thoughts, feelings, and actions. Who one is and how one performs at any given moment depend critically on the relative salience of one's social identities."

ABSTRACT by Keyana C. Ellis

Article Information. Allen, D. (1999). Desire to finish college: An empirical link between motivation and persistence. *Research in Higher Education, 40*(4), 461-487.

Motivation Keywords: retention, motivation, persistence

1. Why this article is interesting. This article is interesting because it hypothesized an influence of noncognitive factors, especially motivation and desire to achieve a degree, to have a significant effect on student persistence in college. Researchers sought to determine the extent to which motivation differs in its impact on persistence and academic performance for minorities and nonminorities.
2. Background. There has been a considerable amount of literature developed concerning student development in college and the factors that can affect a student's path toward graduation. The research on college retention reflects an expanded perspective concerning both the process and dynamics of educational attainment, including new factors such as policy concerns, structures of postsecondary education, internal factors, and the effects of race and SES level. Some researchers have identified an individual's level of motivation and effort as a single best predictor of academic success. However, little work has been done to investigate the supposition that motivation, as a noncognitive factor, is predictive of college performance for minority students. In this study, motivation is defined as the desire to achieve degree-level goal attainment.
3. Purpose. The purpose of this study was to investigate the structural relationship of precollege background variables, motivation, and persistence behaviors among minority and nonminority students, as related to the personal and environmental factors of Bean's Student Attrition Model. The researcher devised a model believed to describe the factors of the persistence process for nonminorities and minorities including *precollege background variables*, including sex, high school GPA, race, parents' education, financial aid, institutional impression, and family emotional support; *motivation*, including self-determination; and *persistence*, including GPA and retention to the next year.
4. Method. The researcher identified 1,000 incoming freshman students as the population for this study. A representative sample of 581 students completed the Noel Levitz College Student Inventory which was used to quantify the construct motivation. Other data, such as sex, high school GPA, and current GPA, were collected through university records. The data was regressed using a two-step structural equation modeling procedure. The researchers used specialized computer software to conduct an exploratory factor analysis; and then calculated a polyserial correlation matrix and goodness of fit tests of the model.
5. Results. In analyzing the proposed model, only three of seven background factors were identified as influencing performance or persistence: precollege academic ability, parents' education, and financial aid. When using the final model in statistical analyses, the researcher found that motivation failed to impact academic performance for either minorities or nonminorities. One important finding, however, suggests that minority students with high levels of motivation tended to persist to their second year.
6. Conclusions. Results of this study empirically suggested that motivation may affect the behavior of minority students and influence academic achievement. Findings also validated a theoretical relationship between precollege motivational factors and desire to complete college for minorities. Allen recommended using results to improve university activities and to assist students in degree pursuit. He noted the early identification of at-risk students, namely minorities, as critical to university retention, and projected the development of specialized mentoring programs as proper intervention to maintain and/or increase motivation as they pursue his/her degree. Finally, implications of this study signaled the need for collaborative relationships to assess retention and to create interventions to combat attrition, including the input of university administration, faculty, student affairs practitioners, policy makers, secondary educators, students and their parents.