

## **A Critique of Juvonen's Sense of Belonging Model**

**Rick Parker, PhD**

**Assistant Professor**

Department of Psychology & Counseling

School of Education

Mississippi College

Clinton, MS

---

### **Abstract**

The purpose of this article is to critique Dr. Jana Juvonen's sense of belonging model. Dr. Juvonen's model emphasizes the importance of students' feeling a sense of belonging in the classroom as they interact with their teachers and/or peers. Although Dr. Juvonen's model does not address many specific student, teacher, and peer behaviors, this article does illustrate several of these positive aforementioned behaviors. In turn, these behaviors can potentially foster positive rapport, resulting in positive peer relationships, a stronger feeling of connectedness, and greater motivation to achieve.

---

Research on student motivation has a long history. One factor that has been shown to influence student motivation is the degree to which a student feels that he/she belongs to, or feels connected to, others at school. One perspective on this topic that has generated considerable research is Juvonen's (1996) sense of belonging model. According to Juvonen (1996), the extent to which a student feels that he/she belongs at school is determined by the quality of relationships that he/she has with his/her classroom peers and teachers. When students perceive these relationships to be positive and supportive, they are likely to feel a strong sense of belonging. In contrast, when students perceive these relationships to be negative and less supportive, they are less likely to feel a strong sense of belonging. Understanding what factors contribute to these feelings of belonging has become an important goal for Juvonen and other educational researchers, as sense of belonging has been positively linked to a number of different school outcomes, including, but not limited to, academic engagement and achievement (Beck & Malley, 1998; Juvonen, 1996).

According to Juvonen (1996), these aforementioned relationships do not form quickly, nor do they result from the individual actions of students, peers, and/or teachers. Instead, consistent with Bandura's theory of reciprocal causation (1986), these relationships are formed gradually over time as the result of complex interactions among the behaviors of students, teachers, and peers. From this perspective, in order to understand the impact of individual student, peer, and teacher behaviors on sense of belonging (and subsequent outcomes), one must first understand the effects these factors have on another.

Juvonen's (1996) model does not specify which behaviors interact most significantly (or often) with one another to impact sense of belonging. However, the model does formally

recognize several broad behaviors that have an impact on the quality of these aforementioned relationships. For example, according to Juvonen, students who ask their teachers for advice and direction in connection with both social and academic matters are more likely than those who don't to form positive, supportive relationships with their teachers (and in turn, develop a stronger sense of belonging). Likewise, students are more likely to form positive relationships with teachers whom they perceive as fair and willing to address conflict among peers/other students in the classroom. Finally, students are most likely to form positive, supportive relationships with classmates when they share school supplies with their classmates, do not act aggressively toward other classmates, and do not engage in gossiping.

As evidenced by the preceding discussion, Juvonen (1996) focuses on behavioral determinants of sense of belonging; she recognizes student, peer, and teacher behaviors that impact sense of belonging as a result of their impact on one another. In contrast to other motivational theorists (Bandura, 1996), Juvonen focuses less on environmental determinants of student motivation. Specifically, her model does not formally recognize non-behavioral factors within and/or outside the classroom that have the potential to influence sense of belonging. This represents a potential limitation of Juvonen's model, particularly when one considers the wide range of environmental factors that have the potential to impact a student's sense of belonging (either directly and/or through their impact on student/teacher and student/peer relationships). An example factor includes the degree to which a school generally emphasizes the importance of teamwork and supportive relationships among students and teachers. Other examples include the availability and quality of a school's learning resources (e.g., computers, textbooks) and the degree to which students experience stress at home (Richman, Rosenfield, & Bowen, 1998; Sarason, I. G., Sarason, & Pierce, 1988; Wentzel, 1997; Wentzel, McNamara-Barry, & Caldwell, 2004).

In closing, Juvonen's (1996) model was not formulated to investigate causes of academic achievement. Again, Juvonen's model focuses on peer, teacher, and student behaviors that impact sense of belonging; it makes no formal mention of non-behavioral environmental factors. However, given the theoretical relationships among academic achievement and many of the predictors of sense of belonging recognized by Juvonen (e.g., student aggression, peer helping behaviors, teacher fairness), a considerable amount of research on *other* predictors and outcomes of sense of belonging and related constructs has been conducted. A summary of these research findings is provided in the discussion that follows.

### **Behavioral Determinants of Sense of Belonging**

As noted previously, most of the research on determinants of sense of belonging to date has focused on behaviors demonstrated by teachers and peers – most notably, those identified in Juvonen's (1996) model. Fortunately, as interest in the topic of student motivation has progressed, research on related constructs such as connectedness, psychological readiness and academic engagement have revealed a number of other behaviors, including those demonstrated by students, that should, in theory, impact sense of belonging as well. More specifically, according to Juvonen, perceived support is a defining characteristic of sense of belonging such that students who feel supported socially, emotionally, and/or academically are more likely to feel a strong sense of belonging than those who do not feel supported. Each of the behaviors identified in this review can be viewed as falling into one of these three 'support' categories (i.e., social, emotional, and/or academic).

## Teacher Behaviors

Teachers are in a strong position to influence a student's sense of belonging. Research on the relationship between teacher behaviors and student motivation supports this proposition. For example, Juvonen (1996) indicated that students are more likely to feel that they belong in school when their teachers demonstrate fairness (e.g., grade homework fairly) and a willingness to talk with students about social problems they might be having.

Other behaviors that should have a positive impact on sense of belonging relate to teachers' expectations of students (Wentzel, 1997). In short, students whose teachers voice high social and academic expectations of their students are more likely to feel a sense of belonging and engagement at school than students whose teachers voice lower expectations. In addition, teachers who provide a safe environment for their students to learn, as well as avoid conflict with their pupils, are more likely to have students who enjoy school and cooperate more with one another (Birch & Ladd, 1997). Over time, such cooperation among students leads to higher perceptions of overall support, which in turn has a positive impact on students' sense of belonging (Juvonen, 1996).

Other teacher behaviors that have been shown to influence sense of belonging (via perceptions of overall support) include demonstrating patience, expressing empathy, listening attentively, and encouraging students to solve academic problems within the classroom (Alder, 2002; Beck, 1995; Bondy & Davis, 2000; Bosworth, 1995; Carson, 1999; Ferreira & Bosworth, 2001; Goldstein & Lake, 2000; Halldorsdottir, 1990; Horsch, Chen, & Wagner, 2002; Huebner, 1996; Knobloch, 2002; Larrivee, 2000; McCray, Brown, & Bodenreider, 2002; Noblit, Rogers, & McCadden, 1995; Noddings, 1992; Smith, 2000; Vogt, 2002; Weinstein, 1998; Zimmerman & Phillips, 2000). Research also indicates that teachers who enable students to work together collaboratively are more likely to foster a sense of belonging among students (Wegerif, 1998). Students are also more likely to feel supported by teachers who listen to them and refrain from judging them (Christenson & Anderson, 2002).

Teaching style has also been shown to influence feelings of belonging and motivation to achieve. For example, several studies have found that teachers who scaffold students are more likely to motivate students to achieve academically by their positive impact on students' self-perceptions (e.g., Deci & Ryan, 1985; Grolnick, Ryan, & Deci, 1989; Lepper & Green, 1975; Ryan, 1982; Ryan, Connell, & Deci, 1985). Further, as students begin to learn new things from and about their teachers, their relationships with their teachers improve; the end result is an increase in sense of belonging and academic achievement (Chall, 2000; Christenson & Anderson, 2002; Vygotsky, 1978).

Other teacher behaviors that can affect a student's sense of belonging are goal setting and strategy development. Several studies, for example, have found that students perceive teachers who set challenging goals and offer advice regarding goal accomplishment strategies to be more supportive and caring than teachers who do not (Christenson & Anderson, 2002). Students who feel this way are likely to experience a greater sense of belonging. Related studies have found that students whose teachers set high performance goals are likely to feel more supported academically and emotionally than students whose teachers set easy performance goals (Bandura, 1986; Ladd, 1990; Wentzel, 1997).

Finally, research indicates that there is a positive relationship between social support and the degree to which students perceive that their teachers support and prevent other students from victimizing them. Most notably, several studies have found that students whose teachers permit

bullying and classroom teasing are less likely to feel connected to their teachers and peers than students whose teachers address bullying and related behaviors immediately (Banks, 1997). Other studies have found that students whose teachers encourage them to seek assistance from other classmates are more likely to feel connected with and related to others at school than students whose teachers do not encourage such feedback-seeking behavior (Bandura, 1986; Ladd, 1990; Wentzel, 1997). However, it should be noted that classmate feedback must be perceived as helpful and not harmful in order for students to feel that they are connected and are safe (Juvonen, 1996; Banks, 1997).

### **Peer Behaviors**

In addition to teacher behaviors, peer behaviors have been shown to be strong determinants of a student's sense of belonging. For example, research on social exclusion indicates that students whose peers exclude them from social and/or academic discussions at school rarely feel a strong sense of belonging at school and are prone to experience anxiety (McDonald & Leary, 2005). Social exclusion is the product of not fitting into peer groups. Many peer groups or clichés form in school with status structures. These status structures lead some groups of students being considered higher status than others (Crick et al., 2001; Kinney, 1993). Many higher status clichés snub and/or gossip about students in lower status groups (Baumeister & Tice, 1990; Gray & McNaughton, 2000; Adler, P. A. & Adler, 1998). Although status groups do provide a sense of belonging for different students of different status, some students never find a suitable cliché, and it these specific individuals who experience the weakest sense of belonging (Adler, P. A. & Adler, 1998).

In addition to behaviors associated with social exclusion, the extent to which students' peers demonstrate aggressive behaviors within and outside the classroom can also have a significant impact on a student's sense of belonging. For example, several studies have found that students who slap, kick, and/or punch their peers are less likely to feel connected to school compared to students whose peers do not demonstrate these behaviors (Alsaker, 1993; Kochenderfer & Ladd, 1996; Olweus, 1993; Paquette & Underwood, 1999). Other studies have found that students whose peers engage in behaviors designed to damage students' social relationships (e.g., gossip, friendship manipulation) report lower levels of sense of belonging and motivation to achieve than students whose peers do not engage in such behaviors (Paquette & Underwood, 1999).

In contrast, pro-social behaviors demonstrated by students' peers have been shown to have a positive impact on a student's sense of belonging. For example, several studies have found that students who have peers who proactively seek their academic and social feedback, assist them with social endeavors, and share study strategies and school supplies with them are more likely to feel supported emotionally and socially, and in turn report a greater sense of belonging (e.g., Richman et al., 1998; Wentzel, 1991). Still other studies have found that students who have peers that provide them emotional support during difficult emotional times both within and outside the classroom are more likely to feel a sense of belonging or general feeling of connectedness at school than students who do not receive such emotional support from peers (Ladd, 1990; Wentzel et al., 2004).

A final set of peer behaviors found to relate to sense of belonging involves the application of classroom tutoring. Research has found that peers who serve as tutors to other students and couple this tutoring with immediate reinforcement and positive feedback, help

improve students' sense of belonging and academic performance (Greenwood, 1991; Greenwood, Carta, & Hall, 1988; Hops & Cobb, 1973). Other studies have found that students who take advantage of free tutoring services report improvements in academic performance relative to students who do not capitalize on such services (Amenkhienan & Hogan, 2004).

### **Student Behaviors**

Compared to teacher behaviors and peer behaviors, student behaviors that impact sense of belonging have received little research attention. This is somewhat surprising given the role that the 'person' plays in several important theories of motivation such as theory of reciprocal causation (Bandura, 1986) and/or B. F. Skinner's (1938) reinforcement theory. Those behaviors that have been studied are reviewed as follows.

When demonstrated by students rather than peers, many of the same behaviors noted previously have been empirically and/or theoretically linked to sense of belonging. For example, research indicates that students who actively attempt to cooperate with and act friendly toward their classmates and peers are more likely than those who do not to feel a sense of belonging at school (Berman, 1997). Likewise, students who do not bully or criticize other students are likely to feel a stronger sense of belonging than those who do (Juvonen & Graham, 1998; Juvonen, Graham, & Schuster, 2003). In addition, students who serve as tutors are hypothesized to gain more than personal self-esteem; they are also hypothesized to develop – through the process of tutoring and developing meaningful relationships with others whom they tutor – a stronger sense of belonging and connectedness to school (Noll, 1997). Sharing study tips is another related behaviors hypothesized to positively impact sense of belonging.

Students who exclude other students from academic and social discussions are less likely to feel a sense of belonging in the long-run. More specifically, as noted previously, social exclusion is a form of relational exclusion which researchers have found can have effects similar to those of bullying. The end result in either case is that both the bully and the bullied are harmed. The bullied students are less likely to feel a sense of belonging, and the bullies, as previously mentioned, often become unpopular as they do not feel as if they belong (Wheeler, 2004).

Finally, gossiping about other students in an attempt to harm their reputations can lead to students feeling as if they do not belong. Historically, in some honor societies, gossiping was part of a repertoire of behaviors that not only dishonored students but actually contributed to students being removed from universities. Further, current research identifies gossip as a form of social relational aggression that is utilized to harm a student's self-esteem and/or social standing. Many of the victims of social aggression, especially girls, feel rejected or lose some of their sense of belonging in the school community (Burnett & Walz, 1994; Galen & Underwood, 1997; Kaplan & Johnson, 1991).

### **Environmental Determinants of Sense of Belonging**

It is evident from the preceding review that there are a number of behaviors demonstrated by students, peers, and teachers that can impact a student's sense of belonging. It is also evident that the potential impact of these behaviors stems from their impact on students' perceptions of emotional, social, and/or academic support. As noted previously, however, research on non-behavioral predictors of constructs related to sense of belonging (e.g., connectedness,

psychological engagement) indicates that sense of belonging may be influenced by more than just behaviors. A second factor may be the overall context, or scholastic environment, within which a student interacts with his/her teachers and peers (Beebe, S. A., Beebe, & Ivey, 2010). A review of the empirical research in this area is provided in the discussion that follows.

One potential environmental determinant is physical safety. Students who feel physically safe at school are more likely to feel a sense of belonging than students who do not feel safe (Beebe, S. A. et al., 2010; Juvonen & Graham, 1998; Juvonen et al., 2003). Related studies have found that students who perceive their school environments to be ‘emotionally safe’ (i.e., students feel accepted by students and teachers alike for being who they are, and nothing more) are more likely to feel a sense of belonging than students who feel less emotionally safe and connected (Johnson, 2009; Olweus, 1987).

Another potential environmental determinant involves the use of technology. Many schools are now emphasizing the use of computers and software programs to maximize efficiency and the overall quality of student learning. Some researchers believe that such technology might actually have a negative impact on sense of belonging via their impact on students’ innate social needs (e.g., the desire to bond on an emotional level with other students) (Kagan, 1990; Glasser, 1986). Unfortunately, little empirical research in this area has been conducted.

Other studies have found that classroom goal structure influences students’ perceptions of academic support, and in turn students’ sense of belonging. More specifically, research indicates that students respond differently to mastery versus performance goals (Bandura, 1991; Locke & Latham, 1990). While mastery goals often spurn from students’ intrinsic levels of motivation, performance goals, although frequently associated with extrinsic motivation, typically culminate with higher grades in school. However, this depends sometimes on whether the student’s performance goal is related to his/her approach or avoidance behavior. In short, if the student wants to avoid negative consequences, he/she may become more motivated to earn a higher grade in order to avoid adverse consequences (Skinner, 1938; Tolman, 1932; Locke & Latham, 1990).

Student perceptions of their schools’ reward practices have also been shown to influence sense of belonging (Anderman, L. H. & Anderman, 1999; Midgley, 2001). For example, several studies have found relationships between student motivation and a school’s perceived use of rewards. Students who believe their schools allocate or withhold rewards based on behaviors or outcomes perceived to have little value tend to be less enthusiastic about learning, reporting lower levels of overall connectedness to school (Coleman, 1987).

Additional non-behavioral determinants of sense of belonging include the availability and quality of school learning resources. For example, although there is relatively little empirical data on this topic, it is reasonable to think that students will be more motivated to learn, and experience higher levels of perceived academic support, if their school is up-to-date technologically (e.g., it provides effective computers), offers need-based academic counseling, and provides quality textbooks at a reasonable price (Hirsch, 1996; Midgley, 2001; Tyson & Woodward, 1989).

The degree to which schools encourage collaborative learning is another variable that should impact sense of belonging. For example, students who are frequently asked to work together with other students on projects tend to develop higher levels of perceived social and academic support, and in turn a stronger sense of belonging to school, than students who work independently (Rovai, 2002). Research further indicates that such collaborative/consensus-based

learning is more prevalent in some schools than others. Additional research on the relationship between a school's collaborative learning environment and sense of belonging is therefore warranted (Weinberger & Fischer, 2006).

An additional environmental variable relates to student tutoring services. Research indicates that students who receive tutoring and participate in tutoring programs as tutors themselves are likely to feel a stronger sense of belonging than students who do neither (Noll, 1997). For this reason, it is reasonable to think that students who attend schools that offer formal tutoring services are likely to feel more supported academically, and in turn experience higher levels of sense of belonging, than students who attend schools that do not offer tutoring programs.

Another potential environmental determinant of sense of belonging involves parental expectations of academic success. For example, several studies have found positive relationships between student achievement and the degree to which students perceive their primary caregiver(s) as supportive of their academic pursuits. Other studies have found relationships between academic engagement and the amount and type of academic discussion that is generated and received at home (Bempechet, Graham, & Jimenez, 1999).

A final environmental factor with the potential to impact student sense of belonging is student stress rooted in activities and events at home. Two specific examples include stress brought on by financial hardship and the death of a close friend or family member. When a student loses a parent to death, he/she loses a key source of potential emotional support that can comfort, empathize, and assist him/her when he/she is faced with difficult academic challenges (Fontana, 1989). Without such support, students are less likely to feel that they belong at school. With respect to financial hardships, research indicates that family financial problems are negatively correlated with a student's sense of belonging.

## References

- Adler, P. A., & Adler, P. (1998). *Peer power*. New Brunswick, NJ: Rutgers University Press.
- Alder, D. (2002, June). *Simple diameter class and cohort modeling methods for practical forest management*. Paper presented at the meeting of ITTO Workshop on Growth and Yield, Kuala Lumpur, Malaysia.
- Alsaker, F. (1993, July). *Bully/victim problems in day-care centers: Measurement issues and associations with children's psychological health*. Paper presented at the Biennial Meeting of the Society for Research in Child Development, New Orleans, LA.
- Amenkhienan, C. A., & Hogan, L. R. (2004). Engineering students' perceptions of academic activities and support services: Factors that influence their academic performance. *College Student Journal*, 38(4), 523-536.
- Anderman, L. H., & Anderman, E. M. (1999). Social predictors of changes in students' achievement goal orientations. *Contemporary Educational Psychology*, 25, 21-37.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1991). Self-regulation of motivation through anticipatory and self-reactive mechanisms. In R. A. Dienstbier (Ed.), *Perspectives on motivation: Nebraska symposium on motivation* (pp.69-164). Lincoln, NE: University of Nebraska Press.
- Bandura, A. (1996). *Self-Efficacy: The exercise of control*. Englewood Cliffs, NJ: Prentice-Hall.

- Banks, R. (1997). *Bullying in schools*. Retrieved from ERIC database. (ED407154)
- Baumeister, R. F., & Tice, D. M. (1990). Anxiety and social exclusion. *Journal of Social and Clinical Psychology, 9*, 165-195.
- Beck, J. S. (1995). *Cognitive therapy: Basics and beyond*. New York, NY: Guilford Press.
- Beck, M., & Malley, J. (1998). A pedagogy of belonging. *Reclaiming Children Youth, 7*, 133.
- Beebe, S. A., Beebe, S. K., & Ivy, D. K. (2010). *Communication: Principles for a lifetime* (4th ed.). New York, NY: Allyn & Bacon.
- Bempechet, D., Graham, S., & Jimenez, G. (1999). The socialization of achievement in poor and minority students. *Journal of Cross-Cultural Psychology, 30*, 139-158.
- Berman, E. (1997). Dealing with cynical citizens. *Public Administration Review, 57*(2), 105-112.
- Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school critique sense of belonging model adjustment. *Journal of School Psychology, 35*, 61-79.
- Bondy, S., & Davis, E. (2000). The caring of strangers: Insights from a field experience in a culturally unfamiliar community. *Action in Teacher Education, 22*(2), 54-66.
- Bosworth, P. (1995). *Diane Arbus: A biography*. New York, NY: Knopf.
- Burnett, G., & Walz, G. (1994). *Gangs in schools*. Retrieved from <http://ericweb.tc.columbia.edu/digests/di99.html> Nov. 2001
- Carson, A. (1999). *Economy of the unlost: Reading Simonides of Keos with Paul Celan*. Princeton, NJ: Princeton University Press.
- Chall, J. S. (2000). *The academic achievement challenge: What really works in the classroom?* New York, NY: Guilford Press.
- Christenson, S. L., & Anderson, A. R. (2002). Commentary: The centrality of the learning context for students' academic enabler skills. *School Psychology Review, 31*(3), 1-15.
- Coleman, S. (1987). *The origin and meaning of the political theory of impossibilism* (Unpublished doctoral dissertation). University of London, England.
- Crick, N., Nelson, D., Morales, J. R., Cullerton-Sen, C., Casas, J. F., & Hickman, S. E. (2001). Relational victimization in childhood and adolescence. I hurt you through the grape vine. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school. The plight of the vulnerable and victimized* (pp.196-214). New York, NY: The Guilford Press.
- Deci, E. L., & Ryan, R. (1985). *Intrinsic motivation and self-motivation*. New York, NY: Plenum.
- Ferreira, M. M., & Bosworth, K. (2001). Defining caring teachers: Adolescents' perspectives. *Journal of Classroom Interaction, 36*(1), 24-30.
- Fontana, D. (1989). *Managing stress*. London, England: Routledge/British Psychological Society.
- Galen, B. R., & Underwood, M. K. (1997). A developmental investigation of social aggression among children. *Developmental Psychology, 33*(4), 589-600.
- Glasser, W. (1986). *Control theory*. New York, NY: Harper Collins.
- Goldstein, L. S., & Lake, V. E. (2000). "Love, love, and more love for children": Exploring preservice teachers' understandings of caring. *Teaching and Teacher Education, 16*(7), 861-872.
- Gray, J. A., & McNaughton, N. (2000). *The neuropsychology of anxiety* (2nd ed.). Oxford, England: Oxford University Press.
- Greenwood, C. R. (1991). A longitudinal analysis of time, engagement, and academic achievement in at-risk vs. non-risk students. *Exceptional Children, 57*, 521-535.

- Greenwood, C. R., Carta, J. J., & Hall, R. V. (1988). The use of peer tutoring strategies in classroom management and educational instruction. *School Psychology Review, 17*, 258-275.
- Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology, 81*, 143-154.
- Halldorsdottir, S. (1990). The essential structure of a caring and an uncaring encounter with a teacher: The perspective of the nursing student. In M. Leininger & J. Watson (Eds.), *The caring imperative in education* (pp. 95-108). New York, NY: National League for Nursing.
- Hirsch, E. (1996). *The block book*. Washington, DC: National Association for the Education of Young Children.
- Hops, H., & Cobb, J. A. (1973). Initial investigations into academic survival-skill training, direct instruction, and first-grade achievement. *Journal of Educational Psychology, 66*(4), 548-553.
- Horsch, P., Chen, J. Q. , & Wagner, S. (2002). The responsive classroom approach: A caring, respectful school environment as a context for development. *Education and Urban Society, 34*(3), 365-383.
- Huebner, D. (1996). Teaching as moral activity. *Journal of Curriculum and Supervision, 11*(3), 267-275.
- Johnson, C. C. (2009). An examination of effective practice: Elimination of achievement gaps in science. *Journal of Science Teacher Education, 20*, 287-306.
- Juvonen, J. (1996). Self-presentation tactics promoting teacher and peer approval: The function of excuses and other clever explanations. In J. Juvonen & K. R. Wentzel (Eds.), *Social motivation: Understanding children's social adjustment* (pp.43-65). New York, NY: Cambridge University Press.
- Juvonen, J., & Graham, S. (1998). Self-blame and peer victimization in middle school: An attributional analysis. *Developmental Psychology, 34*, 587-599.
- Juvonen, J., Graham, S., & Schuster, M. (2003). Bullying among young adolescents: The strong, weak, and troubled. *Pediatrics, 112*, 1231-1237.
- Kagan, S. (1990). *Cooperative learning*. San Juan Capistrano, CA: Resources for Teachers.
- Kaplan, H. B., & Johnson, R. J. (1991). *Social deviance: Testing a general theory*. New York, NY: Kluwer Academic and Plenum.
- Kinney, D. A. (1993). From peers to normals: The recovery of identity among adolescents from middle school to high school. *Sociology of Education, 66*, 21-40.
- Knobloch, S. (2002). "Unterhaltungsslalom" bei der WWW-Nutzung: Ein Feldexperiment ["Entertainment Zigzag" in www use: A Field Experiment]. *Publizistik, 47*, 309-318.
- Kochenderfer, B. J., & Ladd, G. W. (1996). Peer victimization: Cause or consequence of school maladjustment? *Child Development, 67*, 1305-1321.
- Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment? *Child Development, 61*(4), 1081-1100.
- Larrivee, B. (2000). Transforming teaching practice: Becoming the critically reflective teacher. *Reflective Practice, 1*(3), 293-307.
- Lepper, M. R., & Green, A. H. (1975). Annual review of behavior therapy. *Journal of Consulting and Clinical Psychology, 43*, 396-404.
- Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*.

- Englewood Cliffs, NJ: Prentice-Hall.
- McCray, A., Browne, A. C., & Bodenreider, O. (2002, February). The lexical properties of the gene ontology. In A. T. McCray (Chair), *Proceedings of AMIA*. Symposium conducted at the meeting of National Library of Medicine, Bethesda, MD.
- McDonald, G., & Leary, M. R. (2005). Social exclusion and the hierarchical defense system. *Psychological Bulletin*, *131*(2), 231-236.
- Midgley, D. (2001). *Transformations of mind. Philosophy as spiritual practice by Michael McGhee*. Cambridge, MA: Cambridge University Press.
- Noblit, G. W., Rogers, D. L., & McCadden, B. M. (1995). In the meantime: The possibilities of caring. *Phi Delta Kappan*, *76*(9), 680-685.
- Noddings, N. (1992). *The challenge to care in schools*. New York, NY: Teachers College Press.
- Noll, V. (1997). Cross-age mentoring program for social skills development. *The School Counselor*, *44*, 239-242.
- Olweus, D. (1987). Testosterone and adrenaline: Aggressive anti-social behavior in normal adolescent males. In S. A. Mednick, T. E. Moffitt, & S. A. Stack (Eds.), *The causes of crime: New biological approaches* (pp. 263-282). Cambridge, England: Cambridge University Press.
- Olweus, D. (1993). Victimization of peers: Antecedents and long-term outcomes. In K. H. Rubin & J. B. Asendorpf (Eds.), *Social withdrawal, inhibition, and shyness in childhood* (pp. 315-341). Hillsdale, NJ: Erlbaum.
- Paquette, J. A., & Underwood, M. K. (1999). Gender differences in young adolescents' experiences of peer victimization: Social and physical aggression. *Merill-Palmer Quarterly*, *45*, 242-266.
- Richman, J., Rosenfield, L., & Bowen, G. (1998). Social support for adolescents at risk of school failure. *Social Work*, *43*(4), 309-323.
- Rovai, A. P. (2002). The development of an instrument to measure classroom community. *The Internet and Higher Education*, *5*, 197-211.
- Ryan, R., Connell, R., & Deci, E. L. (1985). A motivational analysis of self-determination and self-regulation in education. In C. Ames & R. Ames (Eds.), *Research on motivation in education* (pp.13-51). Orlando, FL: Academic Press.
- Ryan, R. M. (1982). *Self-determination in human behavior*. New York, NY: Plenum Press.
- Sarason, I. G., Sarason, S. B., & Pierce, G. (1988). Social support: Global and relationship - based levels of analysis. *Journal of Social and Personal Relationships*, *11*(2), 295-312.
- Skinner, B. F. (1938). *The behavior of organisms*. New York, NY: D. Appleton- Century.
- Smith, E. M. (2000). *Beyond tolerable recovery: Moving beyond tolerable existence into Biblical maintenance free victory!* Campbellsville, KY: Alathia.
- Tolman, E. C. (1932). *Purposive behavior in animals and men*. New York, NY: Century.
- Tyson, H., & Woodward, A. (1989). Why aren't students learning very much from textbooks? *Educational Leadership*, *47*(3), 14-17.
- Vogt, F. (2002). A caring teacher: Explorations into primary school teachers' professional identity and ethic of care. *Gender and Education*, *14*(3), 251-264.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wegerif, R. (1998). The social dimension of asynchronous learning networks. *Journal of Asynchronous Learning Networks*, *2*(1), 31. Retrieved from [http://www.aln.org/alnweb/journal/vol2\\_issue1/wegerif.htm](http://www.aln.org/alnweb/journal/vol2_issue1/wegerif.htm)

- 
- Weinberger, A., & Fischer, F. (2006). A framework to analyze argumentative knowledge construction in computer-supported collaborative learning. *Computers & Education, 46*, 71-95.
- Weinstein, C. S. (1998). "I want to be nice, but I have to be mean": Exploring prospective teachers' conceptions of caring and order. *Teaching & Teacher Education, 14*(2), 153-163.
- Wentzel, K. R. (1991). Relations between social competence and academic achievement in early adolescence. *Child Development, 62*, 1066-1078.
- Wentzel, K. R. (1997). Student motivation in middle school. The role of perceived pedagogical caring. *Journal of Educational Psychology, 89*(3), 411-419.
- Wentzel, K. R., McNamara-Barry, C. M., & Caldwell, K. A. (2004). Friendships in middle school: Influences on motivation and school adjustment. *Journal of Educational Psychology, 96*, 195-203.
- Wheeler, E. J. (2004). *Conflict resolution in childhood: Helping children understand and resolve conflicts*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Zimmermann, B. J., & Phillips, C. Y. (2000). Affective learning: Stimulus to critical thinking and caring practice. *Journal of Nursing Education, 39*(9), 422-426.