Intrinsic Motivation and Authentic Engagement: A Conceptual Discussion

Steven J. Bourgeois
Responsive Education Solutions

Steven J. Bourgeois
Responsive Education Solutions

Abstract
This conceptual discussion problematizes the present view of student engagement and motivation, as exemplified in the current culture of assessment and extrinsic orientation toward learning. Nietzsche's metaphor of the Three Metamorphoses of the Spirit serves as a philosophical frame through which I trace the origins of the psychological concepts of intrinsic and extrinsic motivation. Taking an historical approach within the field of cognitive psychology, I present the foundational research upon which self-determination theory (Deci & Ryan, 1985) was built. Through this lens, I consider the implications of current educational practice, with emphasis upon high-stakes assessment and the potential for autonomy-supportive teaching and authentic student engagement. Throughout the discussion, I call attention to the disparity between current educational practice and the stated goal of creating life-long learners.

Introduction

In a review of 420 mission statements from a random sample of 50 high schools in 10 states, Stemler, Bebell, and Sonnabend (2011) identified eleven thematic commonalities based upon quantitative analysis. Among the 11 themes, the three most frequent aspects were civic, emotional, and cognitive development (Stemler, et al, 2011). Within the major themes of emotional and cognitive development were phrases relating to *critical thinking, problem solving*, and becoming *life-long learners* (Stemler, et al, 2011). Scanning a series of school district mission statements, I also found mention of *21st century skills* and *becoming productive global citizens* to be ubiquitous. Common to most school mission statements is the idea that students need to be prepared to make a meaningful contribution to their community and the greater world, through foundational knowledge, independent thinking, and the ability to continue to learn in a variety of contexts.

In a memorable application of this concept, former U.S. Secretary of Education Riley predicted that "The top 10 in-demand jobs in the future don't exist today. We are currently preparing students for jobs that don't yet exist, using technologies that haven't been invented, in order to solve problems we don't even know are problems yet" (Gunderson, Roberts, & Scanland, p. 59, 2004). Claiming that students need to solve problems and build capacity for continuous learning in the professional environment is more than a platitude. However, the mission statements beg a question: Do current educational practices foster this goal of long-term learning, beyond the confines of the schoolhouse?

To address this question, we must consider the contemporary educational environment in the United States with respect to engagement and motivation—factors that have profound effect upon future learning (Deci & Ryan, 1985). Although the United States has historically instituted mandatory school attendance laws, there is no judicial authority over internal

attendance. That is, the child is required to attend physically, but not mentally. Even an experienced teacher may find it difficult to evaluate the extent to which a student is authentically engaged; that is, mentally enveloped by the learning task and driven to persist out of inherent enjoyment (Schlechty, 2011). While highly-successful students may exhibit external signs of engagement, they may, in fact, be completing school activities from a drive to compete with their peers, to attain a contingent reward, or to avoid an unpleasant consequence. While short-term rewards may include teacher praise, gold stars, or other token reinforcements, long-term rewards often relate to report cards, class ranking, or college acceptance. On the negative side, students may act to avoid having the teacher sign their folder, call their parents, or assign Saturday School or detention.

With that in mind, assessing student engagement becomes a quest to ascertain what motivates students to take part in learning activities. Deci and Ryan (1985) defined *motivation* as "the energization and direction of behavior" (p. 3). This implies a momentum, moving from thought and sustaining itself through a culminating action. While motivation can be characterized as a metaphor of inner processes, it can also be viewed as an attempt to simplify an aspect of the human mind that is fundamentally mysterious. Put in academic terms, a student may experience profound pleasure in a learning task, while also exhibiting a drive to outperform his/her classmates and receive the adulation of the teacher. This represents an activity that is simultaneously intrinsically and extrinsically motivated. Because motivation is in constant flux, from task to task and minute to minute, it may represent an instance where that which is measured is influenced by the act of measurement (Wheatley, 2006).

Purpose of the Discussion

The purpose of this conceptual discussion is to problematize the present view of academic engagement and student motivation, as exemplified in the culture of assessment and extrinsic orientation toward education. To clarify the enigmatic nature of motivation, I first interpret a metaphor supplied by Nietzsche in the latter part of the 19th century. Nietzsche serves as a philosophical frame through which I then trace the origins of the psychological concepts of intrinsic and extrinsic motivation. Taking an historical approach within the field of cognitive psychology, I present the foundational research upon which self-determination theory (Deci & Ryan, 1985) was built. Through this lens, I consider the implications of current educational practice, with emphasis upon high-stakes assessment and the potential for autonomy-supportive teaching and authentic student engagement. Throughout the discussion, I call attention to the disparity between current educational practice and the stated goal of creating life-long learners.

A Metaphor of Motivation

In his book titled *Thus spoke Zarathustra*, Nietzsche (1961) put forth an enigmatic view of heroic purpose and spiritual transformation in what he termed the three "metamorphoses of the spirit" (p. 54, original work published 1885). He observed how the spirit initially became a camel to bear a heavy burden, joyfully testing the limits of its strength. With respect to education, this would represent the humble labor of a scholar, who takes pains to learn the formative skills upon which future learning is constructed. The

image of a load-bearing creature encapsulates the academic toil that is all too familiar in the educational setting. However, this comparison certainly falls short of Nietzsche's description of intense self-denial, proclaiming the need to "humiliate oneself in order to mortify one's pride" (1961, p. 54).

After listing a series of renunciations common to the first metamorphosis, Nietzsche described a second transformation into the form of a lion, whose purpose was to resist traditional morality, epitomized by the command: "Thou shalt" (1961, p. 55). While Nietzsche envisioned a radical and complete challenge to contemporary values, the educational context of this metamorphosis may be represented by the ability think critically in a variety of contexts. Though much tamer than Nietzsche's "animal of prey" (1961, p. 55) whose purpose is the destruction of old values, critical thinking represents a circumspect view toward traditional truth, paving the way for unique solutions to problems.

After the initial two metamorphoses, Nietzsche unexpectedly described a third where the lion transformed into a child. Through the words of his mouthpiece, Zarathustra, he explained:

> The child is innocence and forgetfulness, a new beginning, a sport, a self-propelling wheel, a first motion, a sacred Yes.

> Yes, a sacred Yes is needed, my brothers, for the sport of creation:
> the spirit now wills *its own* will,
> the spirit sundered from the world now wins *its own* world. (1961, p. 55)

The idea of intrinsic motivation was crystalized by Nietzsche's (1961) image of a child as a "self-propelling wheel" (p. 264). The German version ["ein aus sich rollendes Rad"] (Nietzsche, 1885, p. 27), reads: *a from-itself rolling wheel*. This implies the possibility of an inner causation at the cognitive level where thought leads to action. In a later passage, Zarathustra rejoiced in his own development, articulating a heightened feeling of intrinsic motivation and a love of learning:

> I have learned to walk: since then I have run. I have learned to fly: since then I do not have to be pushed in order to move.

> Now I am nimble, now I fly, now I see myself under myself, now a god dances within me. (Nietzsche, 1961, p. 55)

Cognitive Psychology and Motivation

While Nietzsche's ecstatic image of learning provides a stark contrast to contemporary educational environments, it also exemplifies the psychological concept of motivation. For cognitive psychologists, motivation represents an inner process that explains why individuals act in certain ways (Deci, 1975). Cognitive theories focus upon the process of thinking and carry the assumption that thoughts provide a causal influence upon actions (Deci, 1975).

In the mid-20th century, psychologists began to examine the complexity of human motivation, suggesting models to explain inner processes. Hull (1943) proposed four basic drives, including hunger, thirst, sex, and avoiding pain. Maslow (1943) asserted that once the basic needs have been satisfied, individuals aspire to reach their potential through self-actualization. According to Deci (1975), traditional drive theory "involves a deficit or

need in body tissues outside the nervous system which (1) energizes behavior that results in a consummatory response which reduces the need or deficit and (2) produces learning" (pp. 28-29). This assertion aligns with Skinner's (1953) approach, where human motivation is strictly determined by external causes. By assuming an absence of inner motivation, Skinner characterized behavior as a response to stimuli, asserting "A person is not an originating agent; he is a locus, a point at which many genetic and environmental conditions come together in a joint effect" (1974, p. 172). Skinner's behavioral psychology continues to have profound impact upon the discipline and represents a justification for the token economy of rewards and sanctions that characterizes modern education (Kohn, 1993).

While Skinner (1953) conducted research on how to modify behavior through operant conditioning, Hartmann (1958) and White (1959) considered the phenomena of how humans and animals explore their surroundings, exhibit a motivation to play, and attempt to assert mastery and autonomy over their environment. According to White (1959), the desire to explore one's environment does not fit the traditional definition of a drive. Strictly speaking, the need to explore and manipulate one's surroundings is not the result of a deficit within the nervous system; nor does this exploration result in a satiation of the need. In fact, upon completion of the exploration, one is likely to experience boredom, which may have been the cause of the exploration in the first place (Deci, 1975).

Moving beyond a strict drive theory, DeCharms (1968) introduced the concept of *personal causation*, where "man's primary motivational propensity is to be effective in producing changes in his environment" (p.

269). DeCharms (1968) introduced the terms "Origin and Pawn" (p. 315) to characterize qualitative differences in motivational orientation. He defined an individual who perceives himself/herself to be an Origin of behavior as *intrinsically* motivated, while someone who considers himself/herself to be a Pawn is *extrinsically* motivated (DeCharms, 1968). The term Origin would describe individuals who seem to "attack problems in the environment with zest, apparently seeking uncertainty and change, and reveling in risky situations" (p. 327). Conversely, a Pawn would be someone who depends upon external direction or some type of incentive to instigate action.

This aligns with Deci's (1975) working definition of *intrinsic motivation*, which represents an inner drive to take part in an activity for its inherent enjoyment. Conversely, *extrinsic motivation* represents reliance on some external cause, often in the form of a reward or sanction (Deci, 1975). While both forms of motivation are central to human development, reliance on extrinsic factors can have unintended consequences within the school setting (Deci & Ryan, 1985; Kohn, 1993). Central to our discussion on school engagement is the suggestion by Deci and Ryan (1985) that social factors, including education and parenting style, can either support or undermine the intrinsic motivation to learn about one's environment.

Self-Determination Theory

Building on the work of DeCharms (1968), self-determination theory (Deci & Ryan, 1985) provides empirical basis for understanding both student engagement and the unintended consequences of extrinsic motivators in our schools. Self-determination theory puts forth three basic

human needs, including autonomy, competence, and relatedness (Deci & Ryan, 1985). According to Deci and Ryan, *autonomy* represents a manifestation of a perceived internal locus of control for actions (Deci & Ryan, 1985). *Competence* relates to one's expectation of performing activities at a proscribed level (Deci, Vallerand, Pelletier, & Ryan, 1991). *Relatedness* concerns how individuals develop emotional connections with significant others such as peers, mentors, and caregivers (Deci et al., 1991). Deci et al. described self-determined acts as being "fully endorsed" (p. 328) at the cognitive level, fostering both psychological well-being and happiness. The extent to which these needs are met either supports or undermines individuals' intrinsic motivation to learn about and influence their surroundings (Deci & Ryan, 1985).

Extensive research through the lens of self-determination theory (Deci & Ryan, 1985) has demonstrated how extrinsic motivators, such as high-stakes testing and incentivized learning, undermine intrinsic motivation. These undermining effects have been demonstrated with respect to praise and rewards (Deci, Koestner, & Ryan, 1999), imposed deadlines (Amabile, DeJong, & Lepper, 1976; Burgess, Enzle, &Schmaltz, 2004), surveillance (Lepper, & Greene, 1975), and competition (Deci, Betley, Kahle, Abrams, & Porac, 1981; Harter, 1982; Vallerand, Gauvin, & Halliwell, 1986).

While researchers agree that extrinsic approaches to learning can produce short-term gains, proponents of self-determination theory have shown that they also have hidden costs (Deci, Koestner, & Ryan, 1999; Deci & Ryan, 1985; Ryan & Weinstein, 2009). Research has shown that extrinsically motivated students display less

complex learning (Deci, Koestner, & Ryan, 1999), less creativity (Grolnick, Deci, & Ryan, 1997), less risk-taking behavior (Hennessey, 2000), less ability to sustain attention in academic tasks (Deci & Ryan, 2000), and less desire for academic challenges (Reeve, 2006). Extrinsically motivated students are more likely to demonstrate academic procrastination, which has a detrimental impact upon performance (Senecal, Koestner, & Vallerand, 1995). Perhaps most crucial in this body of research is the finding that extrinsic motivators, such as praise and rewards, have an undermining effect on long-term intrinsic motivation to learn (Deci, Koestner, & Ryan, 1999).

Repeated exposure to extrinsic motivators has profound psychological consequences for students who grow to value the reward more than the joy of learning itself (Ryan & Deci, 2000). By presenting school as work and learning as a commodity, educators have systematically severed learning from the self-determined intentions of students. While exhibiting external signs of attention, students develop a form of "psychic entropy" (Csikszentmihalyi, 1997, p. 66), where cognitive intentionality and action conflict. From a motivational perspective, external forces (i.e. extrinsic motivators) create imbalances in the psyche, manifesting "tension, conflict, stress, and strain" (Hall & Nordby, 1973, p. 69). Transforming the concept of psychic entropy to human development Csikszentmihalyi (1990) cautioned that "whenever information disrupts consciousness by threatening its goals we have a condition of inner disorder" (p.37). He suggested that this inner disorder can have profound consequences for effective functioning, noting "prolonged experiences of this kind can weaken the self to the point that it is no longer able to invest

attention and pursue its goals (Csikszentmihalyi, 1990, p. 37).

Deci and Ryan (1985) articulated the mechanism by which this inner conflict arises for extrinsically oriented students, noting that "they will, postbehaviorally, assess the situation, noting that there was a strong external cause. They will then attribute causality for their behavior to the external cause and discount any plausible internal cause, namely intrinsic motivation" (Deci & Ryan, 1985, p. 201). In the absence of intrinsic motivation, the learning moment becomes instrumental to something that is valued more by the student. The cumulative effect of this extrinsic orientation manifests itself in a crucial finding from a body of research, whereby academic intrinsic motivation decreases from ages 9-18 (Eccles, Wigfield, Harold, & Blumenfeld, 1993; Gottfried & Gottfried, 1996, 2006; Harter, 1981; Lepper, Iyengar, & Corpus, 2005).

Motivation and Assessment

Common to the extrinsic approach to education mentioned above is a focus upon moving students to attain measurable levels of academic achievement. While this practice calls needed attention to underserved populations, it has been shown to undermine more meaningful and authentic student engagement (Popham, 2001). For McNeil (1996), "measurable outcomes may be the least significant results of learning" (p. xviii). This provocative statement questions the value and validity of standardized achievement measures. Since the discrete multiple choice item represents the primary mechanism in the technology of testing (Madau, Russell, & Higgins, 2009), deeper knowledge at the analytical and evaluative levels remains largely untested. To reformulate McLuhan's (1964) maxim,

the medium of standardized testing promotes the message of non-contextual and standardized knowledge. From a motivational perspective, a test-driven approach places boundaries around knowledge and represents a cumulative assault on intrinsic motivation to learn (Deci & Ryan, 1985; Kohn, 1993).

While educational theory explains students' response to controlling teaching practices and high-stakes testing, research from the broader field of social science provides the mechanism by which these processes depart from their original purpose. According to *Campbell's Law,* "The more any quantitative indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor" (Campbell, 1976, p. 49). This corruption process manifests itself in a narrowing of the curriculum, teaching to the test, a school culture of mistrust, and pressure to cheat (Kohn, 1993; Popham, 2001). Fundamental to a test-driven, outcomes-based approach to education is reliance on extrinsic justifications for learning.

According to Deci and Ryan (1985), the corruption pressure mentioned above becomes operationalized through controlling teaching practices. As the primary influence on student engagement in the classroom, teachers often experience pressure from school administrators, parents, and students themselves to focus upon measurable outcomes. It seems surprising that students would contribute to the assessment-centric approach to learning. However, as they grow up within the current system, they feel the press toward maximizing instruction that will ultimately appear on summative assessments. Since school administrators are typically evaluated based upon student

achievement measures for their campus, it is not surprising that they would encourage this extrinsic approach.

Deci and Ryan (1985) clarified the dilemma, noting "When teachers are pressured by administrators, when their own autonomy in the classroom is not supported, it is hypothesized that they will become more controlling with the children" (p. 266). By limiting students' control over their learning, teachers compromise the relationship of collaboration, establishing an approach where groups of students are pressed to meet accountability standards, despite individual learning differences. Because state assessments are typically administered according to a firmly-established testing calendar, individual learning needs become washed away as teachers prepare to meet a fixed learning deadline.

Autonomy-Supportive Teaching and Authentic Engagement

While Popham (2001) and Madau et al. (2009) articulated the implications of high-stakes assessments within the educational context, others have described how autonomy-supportive teaching can foster intrinsic motivation and authentic engagement. In a summary of research, Reeve (2006) put forth an array of teaching approaches that align with the basic human needs of autonomy, competence, and relatedness, as articulated by Deci and Ryan (1985). These teaching practices foster authentic engagement and an intrinsic orientation that may encourage long-term learning. To foster autonomy, he recommended leveraging students' "preferences, interests, sense of enjoyment, sense of challenge, competencies, and choice-making" (Reeve, 2006,

p. 229). With respect to competence, he recommended that the teacher use informational (rather than controlling) language, encourage hard work, praise signs of improvement, offer informational feedback, respond to student questions, and articulate the value of academic activities for students (Reeve, 2006). Regarding relatedness, he suggested that teachers arrange materials and seating to encourage student conversations, allow them to work independently, and listen carefully to their perspective (Reeve, 2006).

In his recent work on student engagement, Schlechty (2011) put forth a range of recommendations in alignment with Reeve (2006). He focused upon the role of teachers to design "engaging work" (p. 116) for students, offering an array of choices and novel activities, and supporting an environment of collaboration and formative feedback. Schlechty recently revised his framework to include five levels of engagement, including "engagement [authentic engagement], strategic compliance, ritual compliance, retreatism, and rebellion" (p. 15). For Schlechty, a student displaying *engagement* is attentive, committed, persistent, and "finds meaning and value in the tasks that make up the work" (2011, p. 14). This aligns with Deci's (1975) definition of intrinsic motivation, where an individual engages in an activity for its inherent enjoyment. According to Schlechty, a student is *strategically compliant* if she or he engages in academic tasks to attain a contingent rewards, such as a grade. This type of student is typically the most successful academically, having successful negotiated institutional expectations, while displaying only superficial interest. The *ritually compliant* student also works for the instrumental value of an activity; however, he or she is less resilient when confronted with challenges.

Schlechty characterizes *retreatism* as when a student makes a deal with teachers, minimizing the expectation of active involvement, while agreeing to not become an active disruption. The final category of *rebellion* represents the student who displays an active and overt attempt to thwart classroom goals (Schlechty, 2011).

In the present discussion, Schlechty's (2011) approach to engagement reveals a profound challenge for researchers. Specifically, it is difficult to determine the extent to which an individual or class of students is deeply engaged at the cognitive level. In fact, high-achieving students may possess a refined ability to show visible engagement, while focusing themselves on other mental priorities. This would necessitate phenomenological investigations, aligning with Husserl's (2001) adage recommending a return "to the things themselves" (p. 4, original work published 1900). If we accept Schlechty's definition of engagement, which includes attention, commitment, persistence, and meaning, the individuals possessing direct insight would be teachers and the students themselves. From this perspective, motivation and engagement represent moving targets which may vary according to the course, teacher, time of day, and a myriad of factors. By their very nature, these concepts resist categorization and measurement.

Conclusion

As the introduction to this conceptual discussion showed, many school districts tout mission statements with language supporting the development of life-long learners, problem solvers, and critical thinkers who are ready to display their 21st century skills. Despite the elevated rhetoric, school districts are correct in their assertion that high school graduates must continue to learn, in college, in their careers, and for new jobs that do not yet exist. This would make it even more important to consider the long-term motivational effects of methods of instruction and assessment. We may, in fact, be creating students who can pass a summative reading test but no longer want to read. Similarly, we may be producing a generation of algebra students who successfully *passed* the course, never to return to its concepts again.

When students depart the schoolyard gates and take on the challenges of the ever-changing job market, we would hope that they possess the capacity for continuous learning. However, if schools continue to promote short-term learning at the expense of intrinsic interest, students will find themselves underprepared. Mindful of the pressures upon teachers and administrators to produce measurable student growth, a discussion of motivation and engagement may represent a distraction from more pressing concerns. However, by reclaiming the question of deep engagement, we consider the needs of student in front of us today, along with those of the 30-year old adult that he or she will become.

If motivation is viewed as a purely human construct, uncovering its essence is inferential and primarily a linguistic process. Nietzsche's (1961) image of the "self-propelling wheel" (p. 264) forces us to view current educational practice with a critical eye, particularly when external pressures threaten to undermine engagement and the love of learning. While we still struggle to distinguish between Schelchty's (2010) "authentic" and "strategic or ritual compliance" (p. 15), problematizing current practices in instruction and assessment constitutes a shift in priorities. Specifically, it calls attention to the purpose of schooling

within the broader, unceasing education of the individual.

References

Amabile, T., DeJong, W., & Lepper, M. (1976). Effects of externally imposed deadlines on subsequent intrinsic motivation. Journal of Personality and Social Psychology, 34(1), 92-98.

Burgess, M., Enzle, M., & Schmaltz, R. (2004). Defeating the potentially deleterious effects of externally imposed deadlines: Practitioners' rules-of-thumb. Personality and Social Psychology Bulletin, 30, 868-877.

Campbell, D. (1976). Assessing the impact of planned social change. Occasional Paper Series, Paper #8, The Public Affairs Center, Dartmouth College.

Csikszentmihalyi, M. (1990). Flow: The psychology of optimal experience. New York: Harper & Row.

Csikszentmihalyi, M. (1997). Finding flow: The psychology of engagement with everyday life. New York: HarperCollins Publishers, Inc.

DeCharms, R. (1968). Personal causation: The internal affective determinants of behavior. New York: Academic Press.

Deci, E. (1975). Intrinsic motivation. New York: Plenum Press.

Deci, E., Betley, G., Kahle, J., Abrams, L., & Porac, J. (1981). When trying to win: Competition and intrinsic motivation. Personality and Social Psychology Bulletin, 7, 79-83.

Deci, E., Koestner, R., & Ryan, R. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. Psychological

Bulletin, 125(6), 627-668.

Deci, E., & Ryan, R. (1985). Intrinsic motivation and self-determination in human behavior. New York: Plenum.

Deci, E., & Ryan, R. (2000). When rewards compete with nature: The undermining of intrinsic motivation and self-regulation. In C. Sansone & J. Harackiewicz (Eds.), Intrinsic and extrinsic motivation: The search for optimal motivation and performance (pp. 14-48). San Diego: Academic Press.

Deci, E., Vallerand, R., Pelletier, L., & Ryan, R. (1991). Motivation and education: The self-determination perspective. Educational Psychologist, 26, 325-246.

Eccles, J. S., Wigfield, A., Harold, R., & Blumenfeld, P. B. (1993). Age and gender differences in children's self- and task perceptions during elementary school. Child Development, 64, 830-847.

Gottfried, A.E., & Gottfried, A.W. (1996). A longitudinal study of academic intrinsic motivation in intellectually gifted children: Childhood through early adolescence. Gifted Child Quarterly, 40, 179-183.

Gottfried, A.W., & Gottfried, A.E. (2006). The Fullerton longitudinal study: A long-term investigation of intellectual and motivational giftedness. Journal for the Education of the Gifted, 29(4), 430-450.

Grolnick, W., Deci, E., & Ryan, R. (1997). Between intrinsic and extrinsic motivation: Examination of reasons for academic study based on the theory of internalization. Japanese Psychological Research, 39, 98-108.

Gunderson, S., Jones, R., & Scanland, K. (2004). The jobs revolution: Changing how America works. Copywriters Inc.

Hall, C., & Nordby, V. (1973). A primer of Jungian psychology. New York: Meridian.

Harter, S. (1981). A new self-report scale of intrinsic versus extrinsic orientation in the classroom: Motivational and informational components. Developmental Psychology, 17, 300–312.

Harter, S. (1982). The perceived competence scale for children. *Child Development, 53(1), 87-97.*

Hartmann, H. (1958). Ego psychology and the problem of adaptation. New York: International Universities Press.

Hennessey, B. (2000). Rewards and creativity. In C. Sansone & J. Harackiewicz (Eds.), Intrinsic and extrinsic motivation: The search for optimal motivation and performance (pp. 57-78). San Francisco: Academic Press.

Hull, C. L. (1943). Principles of behavior. New York: Appleton-Century-Crofts.

Kohn, A. (1993). Punished by rewards. New York: Haughton Mifflin Company.

Lepper, M., & Greene, D. (1975). Turning play into work: Effects of adult surveillance and extrinsic rewards on children's intrinsic motivation. Journal of Personality and Social Psychology, 31, 479-486.

Lepper, M., Iyengar, S., & Corpus, J. (2005). Intrinsic and extrinsic motivational orientations in the classroom: Age differences and academic correlates. Journal of Educational Psychology, 97(2), 184-196.

Madaus, G., Russell, M., & Higgins, J. (2009). The paradoxes of high stakes testing. Charlotte: Information Age Publishing.

Maslow, A. (1943). A theory of human motivation. Psychological Review, 50, 370-396.

McLuhan, M. (1964). Understanding media: The extensions of man. New York: McGraw-Hill.

McNeil, L. (1986). Contradictions of control: School structure and school knowledge. London: Routledge/Kegan Paul.

Nietzsche, F. (1961). Thus spoke Zarathustra (R. Hollingdale, Trans.). Middlesex: Penguin. (Original work published 1885)

Nietzsche, F. (1885). Also sprach Zarathustra. In Friedrich Nietzsche das Hauptwerk III. München: Nymphenburger Verlag.

Popham, W. (2001). The truth about testing: An educator's call to action. Alexandria: Association for Supervision and Curriculum Development.

Reeve, J. (2006). Teachers as facilitators: What autonomy-supportive teachers do and why their students benefit. The Elementary School Journal, 106(3), 225-236.

Ryan, R., & Weinstein, N. (2009). Undermining quality teaching and learning: A self-determination theory perspective on high-stakes testing. Theory and Research in Education, 7, 224-233.

Schlechty, P. (2011). Engaging students: The next level of working on the work. San Francisco: Jossey-Bass.

Senecal, C., Koestner, R., & Vallerand, R. (1995). Self-regulation and academic procrastination. The Journal of Social Psychology, 135(5), 607-619.

Skinner, B.F. (1953). Science and human behavior. New York: The MacMillan Company.

Skinner, B.F. (1974). About behaviorism. New York: Vintage Books.

Stemler, S., Bebell, D., & Sonnabend, L. (2011). Using school mission statements for reflection and research. Educational Administration Quarterly, 47(2), 383-420.

Vallerand, R., Gauvin, L., & Halliwell, W. (1986). Negative effects of competition on children's intrinsic motivation. Journal of Social Psychology, 126, 649-657.

Wheatley, M. (2006). Leadership and the new science: Discovering order in a chaotic world. San Francisco: Berrett-Koehler Publishers, Inc.

White, R. (1959). Motivation reconsidered: The concept of competence. Psychological Review, 66, 297-333.

Prior to completing a Doctor of Philosophy in Educational Leadership and Policy Studies at the University of Texas at Arlington, **Steven J. Bourgeois** completed a Master of Arts in German, a Bachelor of Arts in German, and a Bachelor of Arts in Music—all from the University of Oregon. He has worked as a high school German and music teacher for 25 years in public schools in Oregon, Michigan, Ohio, and Texas. He is currently serving as Director of Research for Responsive Education Solutions, the largest charter school provider in the state of Texas. **Dr. Bourgeois** can be contacted at SBourgeois@responsiveed.com.