

Positive Psychology and Student Engagement

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Introduction

Positive psychology is a relatively new field of research which grew out of a need to rebalance the focus of psychological studies from the all too familiar negative attributes of human nature to more positive aspects. Gable and Haidt (2005) define positive psychology as “the study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions” (p. 104). Sheldon and King (2001) describe it as “nothing more than the scientific study of ordinary human strengths and virtues” (p. 216). In short, it speaks to the topic of what is right with people (Gable & Haidt, 2005). Positive psychology has great promise for the field of education. Too many students face classrooms that do not provide learning experiences focusing on their strengths, their needs for appropriate challenge, and the importance of developing initiative in our youth. Put succinctly, “a generation of bored and challenge-avoidant young adults is not going to be prepared to deal with the mounting complexity of life and take on the emerging challenges of the 21st century” (Larson, 2000, p. 171).

It is important to note that although positive psychology has realized a recent boost in attention, there were several advocates and writers who expressed an interest in the topic long ago: William James’ *Healthy Mindedness* in 1902; Gordon Allport’s *Positive Human Characteristics* in 1958; and Abraham Maslow’s call to study healthy individuals in 1968 (Gable & Haidt, 2005). Since then, others have joined the effort to promote a balance in the field to encompass positive human attributes such as happiness, resilience, and optimal experience: Mihalyi Csikszentmihalyi’s *Flow Theory*, 1990; Cowan’s work on *Resilience in Children & Youth*, 2000; and Ryan and Deci’s *Self Determination Theory*, 2000.

Nonetheless, for much of the first half of the 20th century, the focus in psychology was on the darker side of human nature – i.e., disorders, impairments, and mental illness. For instance, there are ample studies on negative emotions such as anger, shame, depression, or guilt. However, there are very few empirical studies on positive emotions such as gratitude, admiration, initiative, or moral elevation (Haidt, 2003). So, with the collective desire to bring balance to the field of psychology by encouraging research in these areas long neglected by social scientists, the positive psychology movement gained favor. What is most important for educators is that from this research in positive psychology have come recommendations that can improve the initiative, academic engagement, and the self-efficacy of our youth.

Hard vs. Soft

Unlike the “hard” sciences such as physics, geology, or chemistry, the “soft” social sciences present unique challenges in terms of being recognized within the realm of scholarly research. At the crux of the issue is how to obtain empirical evidence that is both valid and reliable with regard to the varied and unpredictable nature of human beings and the multiple variables involved. Arguably, the “hard” sciences offer a more concrete platform from which to obtain quantifiable research data that is easier to replicate. Conversely, soft sciences including anthropology, sociology, and psychology often utilize qualitative research methods with results that are sometimes considered unreliable or imprecise (Berliner, 2002 p. 18). Education falls into the latter category as it is inherent to the human experience. According to Berliner (2002), “doing science and implementing scientific findings are so difficult in education because humans in schools are embedded in complex and changing networks of social interaction” (p. 18). What social scientists within the field of education are charged to do could be

considered as the “hard-to-do” science versus the “easy-to-do” physical sciences (Berliner, 2002 p.18). While positive psychology does fall in the area of soft science, the current research is adding to our knowledge-base concerning learning and instruction.

Educators have a duty to not only heed, but to add to the growing body of reliable and relevant research in positive psychology. Given that research can enlighten education, it benefits the vocation to narrow the research focus toward meaningful goals in an effort to attain and provide optimal learning experiences. The researcher’s goal should be to provide information so people can transform or transition boring and meaningless lives into ones full of enjoyment (Csikszentmihalyi, 1990). For students of all ages, that translates into developing challenging, meaningful activities that foster intrinsic motivation with the primary focus on improving quality experiences (Csikszentmihalyi, 1990). In other words, discovering the optimal experience or finding flow is a function of the relationship between challenges and skills – “flow occurs when both variables are high” (Csikszentmihalyi, 1997).

Flow Theory

Csikszentmihalyi (1990, 1997) defines flow as an optimal state of concentration on task, which is intrinsically motivating. Time awareness shifts, the individual feels in control, and awareness and activity seem to blend. The individual who experiences flow is motivated to return to this rewarding experience (Csikszentmihalyi, 1990, 1997). Model educational programs, and a growing body of research, positively correlate improved academic achievement with differentiated instructional approaches that provide flow experiences through synchronization with the skill levels and interests of students (Howard and Rice-Crenshaw, 2006; Johnson, 2001).

Csikszentmihalyi (1997) describes how to accomplish this through what he refers to as “the blueprint of *flow* activities” which includes paying close attention to details, discovering hidden opportunities for action, matching capabilities to circumstances, appropriate goal setting, frequent

progress monitoring with relevant feedback, and increasing task requirements so that the individual is continuously challenged. All too often, students are presented with disconnected skill and drill, and teach-to-the-test activities that lead to frustration, anxiety, and boredom. He warns, “as long as enjoyment follows piecemeal from activities not linked to one another in a meaningful way, one is still vulnerable to the vagaries of chaos” (Csikszentmihalyi, 1990, p. 214). By offering coherently linked, stimulating, and action-driven educational opportunities tailored to the variety of student skill levels and interests, one will be providing the foundation for students to learn through discovery, and create meaning for themselves as well as lasting knowledge. Csikszentmihalyi (1990) shares that in order to create “meaning involves bringing order to the contents of the mind by integrating one’s actions into a unified flow experience” (p. 216). As a result, students will be engaged, motivated, and ready for the challenges they are bound to face in life.

Positive Psychology and Youth Development

This relatively new body of research raises the question of how to apply positive psychology to education. In literature on the advancement of positive youth development, Larson (2000) reflected on a fundamental question concerning how to motivate and excite our youth so that they will develop the skills needed to be successful as they develop into adults, thus taking charge of their own lives and actions. As Larson stated, young people will need to develop such skills as motivation and problem solving to be successful in the 21st century. With a generation of students stating that school and school work is boring and not challenging for them, how will students be prepared to actually deal with future challenges?

Human development is a process of growth. When one researches psychological development, there is actually more literature concerning what is wrong than what is occurring correctly. The research is very scarce concerning how to create youth who will grow into motivated, socially competent, compassionate, and psychologically vigorous adults. The studies commonly deal with

such concerns as curbing drug use, suicide, teen pregnancy, violence, and other behavior problems. Hence, there is a major lack of application of psychology to promote positive youth development or what one will henceforth call initiative.

Development of initiative is one aspect of positive youth development that deserves more attention. This skill, initiative, is required by adults and will become even more essential with 21st century learning, yet few American youth have the opportunity to realize it. Student's typical education is teacher directed as opposed to student centered learning which would promote the development of initiative. At the present there is a not much research to suggest other methods of developing positive youth development other than structured after-school activities and organizations. To cultivate youth development, adolescents must experience a combination of intrinsic motivators along with deep attention.

Positive Psychology and Initiative

Larson (2000) defined initiative as "the ability to be motivated from within to direct attention and effort toward a challenging goal" (p. 170). Having stated this, Larson expounds on the fact that adolescents have few opportunities in day-to-day life to develop this ability. Furthermore, Larson (2000) explained that he believed that the development of initiative is a necessary requirement for the creation of such skills as leadership, creativity, and civic engagement.

The development of initiative must come through a series of efforts, disappointments, reflections, and in some cases, actual setbacks (Larson, 2000). Students must be allowed to attempt tasks. Some may actually fail, but they must be encouraged to continue, reflect on the process in the attempt of completing and being successful. When students have successfully completed a learning objective, the sense of initiative should enable them to want to increase their skills by challenging themselves to attempt further and more difficult tasks. One concept that might be difficult is allowing students the opportunity to fail and try again; this idea goes against the current concept in education of never allowing a student to experience

negative self-esteem. The action of at first failing, but trying again to be successful will also develop initiative.

Increasingly, students are complaining of how boring and uninteresting life is. Furthermore, this dilemma goes beyond school. Larson (2000) contends that students are not given opportunities to create order and meaning in their own lives or live through the outcomes from negative choices. There is a continuous disconnect between what is expected from young people and adults in the Western society. Thus, students are not given opportunities to "scaffold" life-learning experiences and therefore to develop initiative. Students have very few opportunities to create for themselves the life experiences to plan, prepare, perform, and reflect on their actions.

One method in which to develop initiative within students would be if students felt they had a future to strive for, or that the image of adulthood was more appealing. Some young people have very few role models to imitate in their lives. Second, students need to comprehend that some situations should be experienced for the moment, not for what benefit (or reward) the students could receive for accomplishing the task, or "intrinsic motivation" (Larson, 2000, p. 172). Students need to be "invested in the activity" in order to develop the initiative needed to be successful 21st century adults. Finally, motivation and concerted engagement must occur over time.

Positive Psychology and Educational Research

One of the major goals of education should be development of initiative and self-discipline in students, as these are among the most important qualities that employers are looking for in high school and college graduates. In fact, these personal qualities are also necessary for students to achieve academic success in the current standards-based environment of education. In a longitudinal study of 140 middle school pupils, self-discipline predicted higher grades and achievement test scores. A related study of 164 eighth-graders found that self-discipline accounted for more variance than IQ in other aspects of academic life (Duckworth & Seligman, 2005). In addition, there is preliminary

evidence that suggests middle school girls may get higher grades than boys due to greater self-discipline (Duckworth & Seligman, 2006).

To test his ideas about initiative, Larson (2000) conducted a random sampling of 16,000 American students consisting of white, working, middle class young adolescents – actually the group one would believe had the most going for them in society. Of this group, 27% or 4,300 stated that at any given time during the sampling, they were bored. Surprisingly, honor students were just as likely to be bored as students who were engaged in delinquent activities. Larson also reflected that students find very little that appeals to them about being an adult. How could one go about allowing students the opportunities to develop intrinsic skills which will direct attention and effort?

Two recent studies of Montessori programs revealed academic successes and positive student engagement experiences at the elementary and middle school levels. These programs emphasize increasing student initiative and engagement. In a 2006 study of one urban Montessori public school that serves for the most part minority children, it was found that the 30 involved five-year-old Montessori students were more successful academically and behaviorally, and superior in use of executive function to the 25 control students. The 12-year-old students included 28 control and 29 Montessori pupils. In this group, the Montessori children wrote more complex sentences and more creative essays, reported a stronger feeling of community, and chose more positive and assertive answers for social issues presented in story format (Lillard & Else-Quest, 2006).

A student of flow experience, Rathunde (2003), a colleague of Mihalyi Csikszentmihalyi, found the Montessori experience to increase initiative and satisfaction. He conducted a study that involved approximately 150 sixth and eighth graders in five Montessori schools in four states, and a matched set of approximately 160 control group students in traditional public middle school environments in six other schools. The students were matched with the primarily European-American backgrounds and higher socio-economic level of the Montessori

students. All students responded using the Experience Sampling Method (ESM) for seven consecutive days. They each wore a watch programmed to signal the student approximately eight times per day between 7:30 a.m. and 10:30 p.m. At these points, all students completed a response form about their feelings at the moment. These Montessori students reported more positive relationships with peers and teachers as well as more supportive teachers. Self-direction among the students was valued by both teachers and pupils. They seemed to be learning to enjoy working hard, an attitude that should assist them in high school, higher education, and future employment (Rathunde, 2003). There was also evidence that they spent less time listening to lectures and media presentations and more time in self-directed activities. Rather, they seemed to work more often on projects with peers coupled with developing more confidence to learn from their mistakes.

Implications for Educational Leaders

Inflexible and impersonal school policies and practices contribute to students failing to achieve their learning potential. Morley (2008) has identified the top ten concerns of students about teachers and learning environments which may put adolescents at heightened risk of dropping out of school. These include “teacher lecturing, no adjustment to learning style, lack of interest in student attendance, lack of belonging, overwhelming homework, lack of rewards, lack of caring about student work, little individual help, overwhelming full schedule of classes, and unfair punishment” (Morley, 2008, pp. 3-4). Montessori students perceived themselves to be more desirous of academic work, relaxed, engaged, excited about school, happy, and proud when doing academic tasks than the traditional students did. Montessori students reported above average intrinsic motivation and above average salience for 40% of the time spent in academic work, versus 24% for the traditional students. In short, the Montessori students reported more *flow* experiences.

Employers are also looking for creative problem solvers and those with intrinsic motivation. Most creative endeavors spring from a devotion over

many years to a particular area of interest and skill. To foster creativity in a school setting may require a commitment to search out and foster the unique interests of youngsters (Csikszentmihalyi, 1996). Children have preferred ways of learning and processing experiences. A growing body of research supports that attitudes and achievement are enhanced when these differences are addressed (Tomlinson & McTighe, 2006). Improving the ability of schools to meet the learning and social-emotional needs of each student is critically important to the success of public education in the United States. As pupils of any given age vary substantially in learning style, academic skill level, pace of learning, personality, and motivation, inspiring them all to become responsible lifelong learners who show initiative and are intrinsically motivated to master skills seems a daunting and probably impossible task to many teachers. To reach this goal would mean instituting a mastery-based differentiated curriculum and flexibly applying a variety of instructional techniques.

Empowering teachers to become leaders within their schools through de-centralized management approaches may be an important factor in determining substantive changes in instructional approaches. However, for teachers to remain motivated to adjust practice in their classrooms, change must go beyond the individual classroom. The culture of the school must be modified. Teacher empowerment does not seem to be sufficient to change instructional approaches (Marks and Louis, 1997). Paramount to exacting meaningful school culture change, educational leaders need to provide targeted, continuous professional development while fostering professional learning communities. However, an increasing number of teachers are doing just this with the support of their building administrators and school boards.

In addition, in order to master new instructional methods, educators will need to examine and modify current grading systems and become well-versed in the use of a variety of assessment techniques. Teachers must also learn to trust students to make some choices about learning approaches and assessment, based on individual learning styles and interests. Positive psychology

calls on all educators to emphasize the strengths of each student (Gable & Haidt, 2005). It may be wise for educators to consider multi-age and multi-grade learning experiences. Indeed, a few researchers have found that student achievement is not reduced by multi-grade and multi-age instruction (Veenman, 1995). Currently, curriculum planning is fragmented by the inflexibility of grade levels and subjects. For the less able and gifted students, this can be particularly problematic as inflexible approaches can mean that some of the individual student's needs go unmet. In public educational settings change is very difficult and must involve serious commitment by district level leadership and all key stakeholders, as well as school-based empowerment processes and initiatives that develop from the bottom - originating with teachers, students, and parents (VanTassel-Baska, 2003).

To bring about a substantive shift in instructional approach requires a paradigm shift. Currently, too many schools do not address the variety of learning styles, diverse skill levels, and the multiple intelligences of students (Gardner, 2006). The relationships between teachers and students and the overall culture of the school are also critically important in developing motivated, successful students. Positive communication, mutual respect, individualized recognition, and ongoing support build trust between students and teachers and increases student initiative. When pupils are appropriately motivated, student initiative is fostered.

Practical Application of Positive Psychology

Differentiation of the curriculum, and the proper balance of challenge and skill level, enhances the flow experience through elevated academic engagement and a sense of increased personal control, choice, and initiative. Individualized programming can help a child grow toward potential and inspire heightened concentration on school tasks (Mercer & Mercer, 1989). Classroom learning centers can address the wide range of abilities, skill levels, interests, and talents and motivate engagement (Smutny, Walker, & Meckstroth, 1997). Research on differentiation theory suggest that students learn best when they

are presented with challenges a bit beyond their level of independent performance, when they are active, when they interact with the teacher and peers, and when new knowledge is linked to prior experience (Tomlinson, 2005).

To differentiate the curriculum the teacher must be keenly aware of the essential components of the curricula. One must then build instruction around the key concepts, principle, and skills of each subject. Teachers can gradually build and implement instructional units in various subjects with several levels of skill requirements. Small groups can be instructed at appropriate skill levels while the rest of the class completes intriguing independent or small group assignments on different levels of challenge. Tiered activities for different skill levels around these essential components are extremely useful. The activities should vary in level of abstraction, difficulty, and structure (Tomlinson, 1999). Teachers can vary or differentiate five elements: content, the learning environment, products produced by the student to indicate mastery level, process or type of learning experience, and the affect or emotional connection to the learning (Tomlinson & Eidson, 2003).

Flow theory recommends a balance of skill level and challenge. After flow is experienced, the individual desires to return to this state, and to take the initiative to achieve productivity while in flow. Flow theory helps explain human motivation (Carl, 1994). Due to the wide diversity of student academic skill levels at any given age or grade level, in the school setting, differentiated instruction can create situations where flow is possible for all students.

Several key theorists support the view that children and adults construct their own knowledge. This approach is called constructivism. Lev Vygotsky emphasized that for this construction of knowledge to proceed, social interaction is crucial to the development of language and thus of thought (Hoy & Miskel, 2005). One approach that emphasizes the young learner's construction of knowledge, student choice of learning activities within a structured curriculum, and an individualized learning pace that increases the flow

experience is the Montessori system (Enright, 1997; Lillard, 1996; Montessori, 1995). Montessori techniques emphasize the child's initiative in learning as does the constructionist developmental theory of Jean Piaget, who worked in a Montessori School in Geneva (Kennedy, 2004).

Maria Montessori saw the importance of helping the child develop the ability to pay attention to tasks through an individualized learning pace and specific multi-sensory materials. She felt a student surrounded by too many distractions could inhibit this ability to focus productively on a task (Sobe, 2004). Essentially, she was advocating for schools to assist children to develop the ability to enter the state of flow. Development of flow is a life-long progress (Kahn, 2003). Civil behavior and mutual respect between adults and children is emphasized, as is problem-solving – alone and with peers. Montessori stressed that the school should free up abilities that are locked inside children by traditional schooling (Montessori, 1995).

Montessori materials for the young child are uniform across schools. Montessori techniques emphasize multi-sensory learning at an individualized pace. The teacher gives short individual or small group lessons and is an observer and learning facilitator, rather than a lecturer. She/he establishes the prepared environment. The system is prescriptive for the younger student and requires use of specific manipulative materials. The teacher utilizes a variety of assessment approaches and closely monitors mastery learning. Paper and pencil tasks are a part of the program but are de-emphasized and for any given subject typically follow hands-on approaches and self-exploration in the particular curricular area. The child is allowed to work uninterrupted whenever possible and the pace of learning is individualized (Enright, 1997). Children select materials from low shelves and use them on mats on the floor or use child-sized furniture. This builds initiative, and pupils develop a sense of responsibility for their own learning. Flow happens as the child builds responsibility for selecting tasks on the appropriate instructional or practice level and therefore works at the level of appropriate challenge, increasing interest and task engagement. With training, many teachers are

implementing similar activities in regular non-Montessori classrooms.

Conclusion

While positive psychology and the study of flow are relatively new to the social sciences, their emphasis on increasing student engagement is making a valuable contribution to closing the achievement gaps. Improving education will only make for stronger critical thinkers and problem solvers in a global world that is constantly changing and evolving. Larson (2000) believes that our students are not being challenged, nor do students see a future for themselves. Csikszentmihalyi (1997) related that “learning to manage one’s goals is an important step in achieving excellence in everyday life (p. 25).” If students are as bored and unmotivated as Larson (2000) reports, then how will they learn to set goals, much less attempt to achieve these goals? Educators, both public and private, should be constantly encouraging students to challenge their problem solving and critical thinking skills, thus engaging in the action of flow and creating the skill of initiative. For students of all ages, that translates into developing challenging, meaningful activities that foster intrinsic motivation with the primary focus on improving quality experiences (Csikszentmihalyi, 1990). Ultimately, our overarching goal as educators should be to develop a generation of engaged, intrinsically motivated young adults prepared to deal with the mounting complexities of life and capable to take on the emerging challenges of the 21st century.

References

- Berliner, D. C. (2002). Education research: The hardest science of all. *Education Researcher*, 31(8), 18-20.
- Carl, W. J. (1994). *Flow – The psychology of optimal experience: History and critical evaluation*. Retrieved March 25, 2008 from http://www.waltercarl.neu.edu/research.htm#Unpublished_Papers.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: HarperCollins Publishers, Inc.
- Csikszentmihalyi, M. (1996). *Creativity: Flow and the psychology of discovery and invention*. New York: Basic Books.
- Csikszentmihalyi, M. (1997). *Finding flow: The psychology of engagement with everyday life*. New York: Basic Books.
- Duckworth, A. L., & Seligman, M. E. P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science* 16(12), 939-944.
- Duckworth, A. L., & Seligman, M. E. P. (2006). Self-discipline gives girls the edge: Gender in self-discipline, grades, and achievement test scores. *Journal of Educational Psychology*, 98(1), 198-208.
- Enright, M. (1997). *Foundations study guide: Montessori education*. Retrieved on February 10, 2008, from http://www.atlassociety.org/articles/foundation_montessori-education.asp
- Gable, S. L. & Haidt, J. (2005). What (and why) is positive psychology? *Review of General Psychology*, 9(2), 103-110.
- Gardner, H. (2006). *Multiple intelligences: New horizons*. New York: Basic Books.
- Haidt, J. (2003). The moral emotions. In R. J. Davidson, K.R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective sciences* (pp. 852-870). Oxford, England: Oxford University Press.
- Howard, W. C., & Rice-Crewshaw, M. (2006, Spring). No child left behind: A successful implementation. *Education*, 126(3), 403-408.
- Hoy, W. K., & Miskel, C. G. (2005). *Educational administration: Theory, research, and practice*. Boston: McGraw Hill.
- Johnson, D. (2001, December). *Performance pentagon: Five strategies to help all students make the grade*. [Bulletin]. Reston, VA: National Association of Secondary School Principals.
- Kahn, D. (2003, Summer). Montessori and optimal experience research: Toward building a

- comprehensive education reform. *The NAMTA Journal*, 28(3), 1-10.
- Kennedy, E. (2004). *How does Piaget differ from Montessori?* Retrieved on March 17, 2008, from <http://www.newmorningschool.com>
- Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist*, 55(1), 170-183.
- Lillard, A., & Else-Quest, N. (2006, September 29). Evaluating Montessori education. *Science*, 313, 1893-1894.
- Lillard, P. P. (1996). *Montessori today: A comprehensive approach to education from birth to adulthood*. New York: Schocken Books.
- Marks, H. M., & Louis, K. S. (1997, Fall). Does teacher empowerment affect the classroom? The implications of teacher empowerment for instructional practice and student academic performance. *Educational Evaluation and Policy Analysis*, 19(3), 245-275.
- Mercer, C. D., & Mercer, A. R. (1989). *Teaching students with learning problems*. New York: Merrill.
- Montessori, M. (1995). *The advanced Montessori method – I*. Oxford, England: Clio Press.
- Morley, R. (2008). *Policies and practices related to student failure and dropping out: Tools and resources*. Paper presented at the National Dropout Prevention Center/Network Radio Webcast. Retrieved March 25, 2008, from <http://www.dropoutprevention.org/webcast>
- Rathunde, K. (2003, Summer). A comparison of Montessori and traditional middle schools: Motivation, quality of experience, and social context. *The NAMTA Journal*, 28(3), 13-52.
- Sheldon, K. M., & King, L. (2001). Why positive psychology is necessary. *American Psychologist*, 56, 216-217.
- Smutny, J. F., Walker, S. Y., & Meckstroth, E. A. (1997). *Teaching young gifted children in the regular classroom: Identifying, nurturing, and challenging ages 4-9*. Minneapolis, MN: Free Spirit.
- Sobe, N. W. (2004). Challenging the gaze: The subject of attention and a 1915 Montessori demonstration classroom. *Educational Theory*, 54(3), 281-297.
- Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, Va.: Association for Supervision and Curriculum Development.
- Tomlinson, C. A., & Eidson, C. C. (2003). *Differentiation in practice: A resource guide for differentiating curriculum grades 5-9*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. A. (2005). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.). Upper Saddle River, NJ: Pearson.
- Tomlinson, C. A., & McTighe, J. (2006). *Integrating differentiated instruction and understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Van Tassel-Baska, J. (2003). *Curriculum planning and instructional design for gifted learners*. Denver, CO: Love.
- Veenman, S. (1995, Winter). Cognitive and noncognitive effects of multi-grade and multi-age classes: A best-evidence synthesis. *Review of Educational Research*, 65, 319-381.

