

Awakened Schools: A Theoretical Framework for Engaging Students' Interconnectedness

Amy L. Chapman, Columbia University, United States

The IAFOR International Conference on Education in Hawaii 2022
Official Conference Proceedings

Abstract

Much research has been done around the implementation and benefits of social and emotional learning. In spite of this good research, the field of SEL lacks a theoretical, rather than outcomes-based, grounding, in particular in ways that extend beyond curriculum-based approaches (Weissberg et al., 2013). There have been calls from within the field of SEL to go deeper into the inner life of children (Lantieri, 2002, 2019). This paper proposes a conceptual framework for this deeper form of whole child education by building on Shulman's (1986; 1987) pedagogical content knowledge (PCK) to understand how teachers create awakened classrooms. Awakened classrooms support students' cognitive development in ways which allow students to use enhanced perception, engage in multiple perspective-taking, and foster discernment (Miller, 2015; 2021). We use the term *spirituality* as a shorthand for accessing these parts of the brain: spirituality is the innate human capacity to feel interconnected with others and the greater world, rather than any particular beliefs or practices. Based on three years of research which examined how teachers created awakened classrooms (Chapman et al., 2021; Chapman et al., in press), we created a professional development program to design awakened classrooms. Nurturing innate spirituality in the classroom requires the development of a complex, situated form of knowledge that we call Spiritual Pedagogical Content Knowledge (SPCK). This presentation will share this conceptual framework, which aims to understand the complexity and interplay of the three components of an awakened classroom: spirituality, pedagogy, and content.

Keywords: Spirituality, School Culture, Pedagogy, Pedagogical Content Knowledge, K-12 Education

iafor

The International Academic Forum
www.iafor.org

Introduction

There is enormous energy in the United States surrounding whole child education. While whole child education encompasses a variety of approaches, such as holistic education, peace education and moral education, two of the most prominent are social and emotional learning (SEL) and character education. Both SEL and character education aim to provide programmatic or curricular support for teachers, parents, counselors, and other educators to teach students emotional and behavioral regulation (Berkowitz et al., 2012; CASEL, 2003; McGrath, 2018). Through Social and Emotional Learning (SEL) curricula, individuals learn to understand and manage emotions, set and attain positive goals, experience and express empathy for others, create and sustain positive relationships, and make sound decisions (CASEL, 2003). Character education aims to cultivate psychological characteristics in students that inspire and empower them to act in democratic, ethical, productive, and socially effective ways (Berkowitz et al., 2012; McGrath, 2018). These programs have found some success in increasing prosocial behaviors while decreasing problematic ones.

Both SEL and character education focus on behavioral change through specific instruction. In spite of the inspired work of these programs, this focus on curricular and programmatic approaches to whole child education has prompted even some leaders of the social emotional learning movement to recognize the limitations of this approach (Weissberg et al., 2013). Consequently, there has been a call within the field to take the social emotional learning and character education movements to a deeper level (Lantieri, 2002, 2019). Concurrently, children and adolescents face unprecedented rates of anxiety, depression, and substance abuse (Mojtabai et al., 2016; Lewinsohn et al., 2004). Given these epidemic levels of pathology, it is imperative to understand what might mediate them. Research has shown that having a strong spirituality is one aspect of mediating suffering. Young people who report having a high personal spirituality also show better psychosocial outcomes (Barkin et al., 2015). Having a thriving spiritual life fortified these students against depression, anxiety, and substance abuse. However, only a small percentage of the students in the study reported having that strong spirituality. The findings on the benefits of spirituality and these calls to take SEL deeper prompted us to consider how the science of spirituality might be applied to K-12 education.

The Science of Spirituality

Spirituality is a deep, innate human capacity through which we experience the sacred and the transcendent in the imminent (Kendler et al., 1997, 1999), which burgeons across the lifespan, including in adolescence (Button et al., 2011; Koenig et al., 2008). When we speak of spirituality, we do not speak of any faith or religious tradition, or any particular spiritual practices. Rather, we speak of an augmented sense of awareness through which we have enhanced perception and feel connected to others and a benevolent universe (Miller, 2021). Neuroscience has identified four regions of the brain which are our innate spiritual seat of perception (Miller, 2021). In a study in which participants were asked to describe spiritual experiences while undergoing fMRI (functional magnetic resonance imaging) scans, increased activity and connectivity was shown in the regions of the brain (the Occipital, Parietal, and Precuneus regions and the Ventral Frontal Temporal Network) which activate the bonding network, control perception, heighten perspective-taking, feel connection with others, and engage in discernment (McClintock et al., 2019; Miller et al., 2019). From a scientific standpoint, spirituality is when these regions of the brain work in tandem, allowing us to have an awakened sense of awareness.

Supporting this neuroscience, studies of twins have shown that every child is born with an innate capacity for spiritual life (Kendler et al., 1997; Koenig et al., 2008; Button et al., 2011). Further, these same studies have shown that our innate capacity for spirituality is one-third heritable, while two-thirds of our spirituality must be socialized (Kendler et al., 1997; Koenig et al., 2008; Button et al., 2011). In other words, although each of us is born with the innate capacity for spirituality, in order for it to fully develop, we must practice using our spiritual brains with others.

Research has also suggested that spirituality is supportive of mental health and overall thriving. Clinical science has shown spirituality to be the most robust protective factor against suicide currently known to medical science (Miller, 2021). Students who report higher levels of spirituality can better cope with life's stressors and have a more positive perspective of their problems (Gnanaprakash, 2013). Further research has shown that spirituality is a protective factor against depression, anxiety, risk-taking behavior, and substance abuse (Barkin et al., 2015; Bonelli et al., 2012). Taken together, these findings indicate that it is imperative to cultivate children's innate spirituality, and also to examine how spirituality supports children's learning.

Applying the Science of Spirituality to K-12 Education

Because spirituality is both inherited and needs to blossom in community, it must be nurtured. Historically, this has been done in faith communities, families, and sometimes in civic communities, but increasingly this is no longer true (Smith & Denton, 2009). Schools are environments which are accustomed to supporting young people's development, and so we undertook to examine how schools were already supporting students' innate spirituality. Thus, through our research, we set out to better understand what schools do to support students' innate spirituality.

We conducted a three-year ethnographic study in 20 schools throughout the U.S. The schools in our study were previously identified as spiritually supportive. Schools varied, and included 14 private schools and 6 public schools. The sample of schools was diverse: secular and religious schools; schools which were in urban, suburban, and rural areas; some were large, some were small; some were well resourced, and some were poorly resourced. Members of our research team conducted in-depth visits to each of the schools in our sample. These visits included observations in formal and informal learning spaces, interviewed school leadership, faculty, staff, students, parents, and in some cases, alumni. Each school provided us with documents (such as their handbook or mission statement) as well as examples of how they saw themselves supporting students' spirituality.

We applied a grounded theory approach to coding our data (Charmaz, 2008), which allowed us to broadly and deeply explore what schools shared with us. We found that schools support students' innate spirituality through their intentionally designed school culture. Schools created the environment in which students' innate spirituality could flourish: one which activated their *awakened brain*. More specifically, we found that schools did this in 11 specific ways; we call these the 11 drivers (or elements) of a spiritually supportive, or *awakened*, school culture. These drivers are centered around *transformative relationships*, which provides the lens through which the other 11 drivers work. Transformative relationships are student-teacher relationships grounded in connection and love, where each person sees the other as a whole human being.

These drivers of an Awakened School, which intentionally create a school culture which supports students' spiritual development, are: authentic core; transcendent practice; integrated mission, aspirational values; inherent worth; ritual; intentional lexicon; authorized keeper; nature consciousness; and meaningful learning. The *Authentic Core* recognizes that schools support each child's innate spirituality and create ways in which they can engage their spirituality in school. This is supported by *Transcendent Practice*, which are the pedagogical and spiritual approaches through which schools invite students to use their *awakened brain*. Awakened Schools also did this by promoting *Nature Consciousness*, a manner of teaching through which students created deep relationships with the natural world. The schools in our study also engaged in *Meaningful Learning*: teachers made intentional connections between learning content and service to the wider community. Awakened Schools know the *Inherent Worth* of each person in their community; each student and teacher is seen, known, and valued for who they are. Schools also support students' spirituality through *ritual*, regular practices which bring the school community together to build identity and connectedness; and through an *intentional lexicon*, which is a common language through which everyone in the school community can speak about their spiritual lives and experiences. Schools also have an *Integrated Mission*, where each member of the school community knows and is formed by the school's mission, and *Aspirational Values*, where the goals schools have for students seek the highest good for students both in and outside of school. Each school also had a person, the *Authorized Keeper*, whose role it was to help everyone in the school to foreground decisions in the school's mission. Together, these drivers illuminated how Awakened Schools cultivate students' spirituality. (For a more thorough description of the 11 drivers of an Awakened school culture, see Chapman, Foley, Halliday, et al., 2021 and Chapman, Foley, Barth, et al., in press).

This research provided a blueprint for how any school could transform their culture to be spiritually supportive. We have now taken these 11 drivers of a spiritually supportive school culture and adapted them into a year-long professional development course for educators. This course, *The Awakened Schools Institute*, provides teachers, administrators, and teacher educators with an understanding of the science of a spiritually supportive school culture, access to teachers and educational leaders who have created spiritually supportive school environments, and practices which can be adapted and employed in any school. Given the early success of this program, we seek now to explore how teachers incorporate spirituality into their teaching from a theoretical perspective.

A Theoretical Understanding of Spirituality in Education

Teaching is a complex enterprise: it requires educators to employ multiple forms of knowing concurrently (Mishra et al., 1996; Spiro & Jehng, 1990). Moreover, classroom teaching occurs in dynamic contexts which require teachers to integrate these various forms of knowledge flexibly (Koehler et al., 2013). At a minimum, teachers must understand their students, the content, and pedagogical approaches and know how to integrate those three types of knowledge in ways which make the sum of learning greater than its component knowledge parts (Koehler et al., 2013; Shulman, 1986, 1987).

In the 1980s, when what teachers taught – the content – and how they taught – the pedagogy – were often seen as siloed, Lee Shulman proposed the theory of Pedagogical Content Knowledge, or PCK (Shulman, 1986; Shulman, 1987). Shulman argued that not only were subject matter and teaching methods not mutually exclusive, but that they were in fact deeply interrelated (Shulman, 1986). Further, content and pedagogical knowledge together were

greater than the sum of their parts: together they represent the way in which a teacher must think about their subject matter, think about their teaching methods, and put them into dialogue with each other in such a way so as to transform content and create lessons which are accessible and meaningful for students.

Here, we apply Shulman's PCK framework to the ways in which teachers integrate spirituality into their teaching. While there have been critiques of this theory, it has also been further applied to additional components of teaching. Perhaps the most recent and notable iteration of this was that Shulman's PCK theory served as the basis for considering teachers' integration of technology into their teaching, through a framework commonly known as TPACK (Koehler et al., 2013; Mishra & Koehler, 2006).

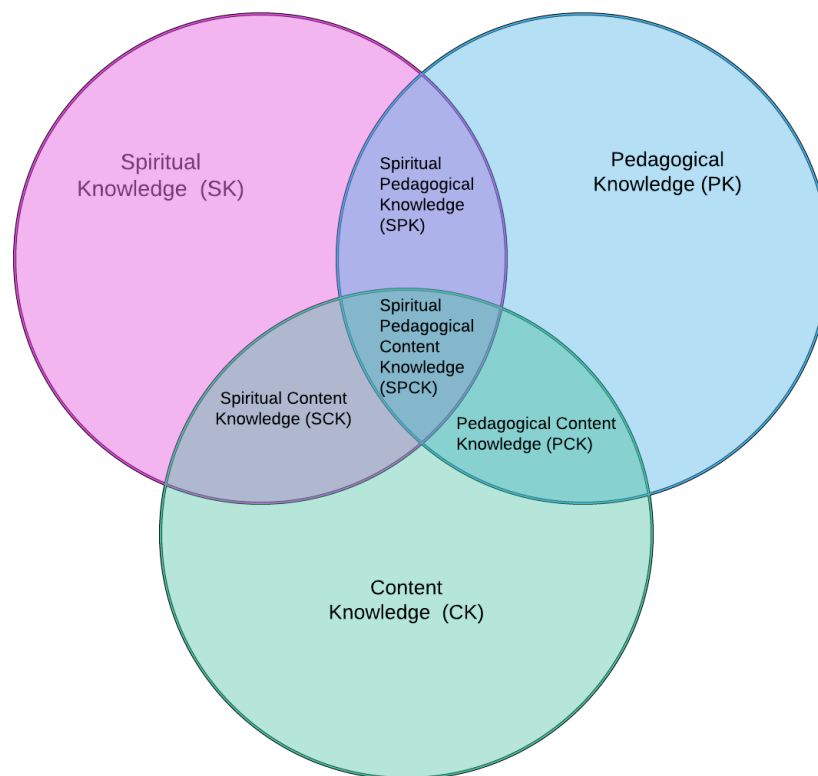


Figure 1: Diagram of Relationships of Spiritual Knowledge, Pedagogical Knowledge, and Content Knowledge

SPCK: Spiritual Pedagogical Content Knowledge

Although spirituality is an innate human capacity (Kendler et al., 1997; Koenig et al., 2008), spiritual knowledge is a complex and specialized form of knowledge. In order to develop a theoretical understanding of how teachers incorporate spirituality into education, we have applied Shulman's PCK framework. Examining spirituality through the lens of the PCK framework allows us to consider how teachers incorporate students' spirituality into their teaching, which I am calling Spiritual Pedagogical Content Knowledge, or SPCK. This application is appropriate because teaching is a complex skill which relies on interrelated, organized systems of knowledge. Shulman argued that both pedagogical knowledge and content knowledge were systems of knowledge (Glaser, 1984; Mishra & Koehler, 2006; Putnam & Borko, 2000; Shulman, 1986, 1987); I argue here that knowing how to incorporate

spirituality into a school environment is likewise an organized system of knowledge, which extends beyond pedagogy or content, but often intersects with one or both of these.

Spiritual Knowledge

Spiritual Knowledge is the deep knowledge of spirituality and how they support students' innate spirituality. Spiritual knowledge includes a teacher's own spirituality, and how they engage and nurture it in themselves; part of spiritual teaching is that it is anchored by the teacher's own spirituality. Spiritual knowledge further includes knowledge about the science of spirituality and how and why it should be encouraged in children and adolescents. It also includes the knowledge of specific spiritual practices, and the ability to adapt them for different learners. A teacher with deep spiritual knowledge will understand the importance and rationale of supporting students' innate spirituality, and they will know how to create spiritual experiences which do so.

Spiritual Pedagogical Knowledge

Spiritual Pedagogical Knowledge refers to the ways in which spiritual knowledge and pedagogical knowledge are deeply interconnected. This includes the knowledge of how to engage in spiritual practices and when and why certain spiritual practices might be the most supportive or nurturing. Additionally, teachers must feel comfortable and competent in designing or creating spiritual experiences for students. Examples from our data which show Spiritual Pedagogical Knowledge are the use of rituals in schools. While all schools have rituals – a bell schedule, lunch routines, etc. – schools in our sample created rituals to focus and celebrate the students' and communities' interconnectedness. Some religious schools engaged in rituals within their faith traditions, but created space within those rituals so that students could lead them or share reflections on their own spirituality. Secular schools also engaged in rituals, an excellent example being a school which held a sacred fire twice a year, where the school and surrounding community came together to share stories or sit in silence, to reflect and revere the community. In times of trauma and celebration, the school would also light a sacred fire to provide people with a ritual which was familiar in which to process those experiences.

Spiritual Content Knowledge

Spiritual Content Knowledge represents the idea of what spiritual practices support content, or how content can be shared in ways which access our spiritual brains. This includes the ways in which spirituality supports students' learning, belonging, and interconnectedness in schools. Two examples from our data of spiritual content knowledge were that schools in our sample each had an intentional lexicon, a common language with which everyone in the school community spoke about their inner life and outer connections. The learning and practice of this language to talk about spiritual life is a type of content knowledge. Another example is the way schools in our sample taught about the natural world. In talking about nature, teachers in our study spoke about nature with wonder, awe, and reverence; this was mirrored in the ways in which the students we interviewed talked about nature. Teachers also had a certain approach to content about the natural world, which was to situate human beings as being commingled, interconnected, and a part of nature. Human beings were neither masters nor stewards of nature; rather, we are deeply intertwined.

Spiritual Pedagogical Content Knowledge

Spiritual Pedagogical Content Knowledge is the basis of good teaching which is grounded in spirituality. It goes beyond the deep knowledge required for the teaching of content, the informed choice or pedagogy, or the ways in which a teacher supports students' spirituality. Spiritual Pedagogical Content Knowledge requires an understanding of how students make sense of their inner life – existential questions, wonder, curiosity, a sense of connection to something beyond themselves; knowledge of the importance of spirituality in the overall development of children; pedagogical approaches which can be used to support students' engagement with their awakened brains; awareness of where students are in their spiritual development; and an understanding what content or pedagogy makes it easier or more difficult to access those parts of the brain; and pulling all three knowledges together to deepen and strengthen the awakened brain. One example from the schools in our study was their use of transcendent practices, experiences which were specifically designed to activate students' spirituality and foster their connection with the wider world. In some schools, this took the form of art, such as a school which invited students to engage in mindful drumming circles. In other schools, there was a daily practice of the entire school taking 5-10 minutes to be in silence together. Other schools designed experiences in nature, whether walks around campus or field trips to national parks, where students were given prompts for reflection and time to be on their own in nature. In each case, the spiritual practice – making music, being in silence, being in nature – incorporated content and pedagogy – making music, prayer or meditation, noticing nature, reflection through prompts. This deep type of knowledge – of how to support the spiritual lives of children and adolescents – is not the purview of spiritual masters, subject matter experts, or pedagogical specialists. Rather, it is an integrated form of knowledge in which a teacher considers and weaves together spiritual, pedagogical, and content knowledge.

Implications

Despite great gains by whole-child education movements in increasing academic achievement and prosocial behaviors, children and adolescents continue to suffer from high rates of anxiety, depression, and substance abuse (Mojtabai et al., 2016; Lewinsohn et al., 2004). Having a strong spirituality has been shown to provide a protective benefit against anxiety, depression, risk-taking, and substance abuse, but few young people report having a strong spirituality (Barkin et al., 2015). Contexts which have traditionally cultivated young people's innate spirituality are experiencing lower rates of participation (Smith & Denton, 2009), and other potential sources of spiritual nurturing feel ill-equipped to do so (Chapman & Miller, in press). Given the national crisis of suffering and the research demonstrating the mediating effects of spirituality on that suffering, it is critical that we help all students to develop a strong spirituality. Social emotional learning (SEL) and other whole child fields have called for education to move beyond the teaching of prosocial skills to nurture each child's inner life (Lantieri, 2002, 2019). Schools provide a natural and logical place to do so, as environments in which students' development in other areas is already supported and nurtured.

We know from our work at The Collaborative for Spirituality in Education, and through our *Awakened Schools Institute*, that teachers and schools need support in nurturing students' spirituality in the classroom. Undoubtedly part of this work must be understanding the knowledge which is required of teachers to nurture students' spirituality, and particularly how that knowledge intersects with teachers' deep understanding of subject matter and teaching

approaches. Developing a theoretical understanding of how this work of cultivating spirituality through K-12 education will support teachers, teacher educators, and pre-service teachers in developing lessons and experiences which intentionally and successfully integrate spiritual knowledge, pedagogical knowledge, and content knowledge.

Conclusion

Students are experiencing unprecedented levels of suffering; mental health outcomes are as low as they have ever been, and students are experiencing high levels of disconnection and loneliness (Mojtabai et al., 2016; Lewinsohn et al., 2004). We know that spirituality, or accessing the awakened brain, supports positive psychosocial outcomes and overall wellbeing, but traditional means of cultivating young people's spiritual development are waning (Smith & Denton, 2009). Addressing this gap in how spirituality is supported for children and adolescents is therefore important. At the same time, whole child education fields are calling for whole child education to go deeper to the inner core of the child. Thus, it is important that schools support students' spirituality. At the same time, teachers need support in integrating spirituality into education. In order to offer this support, we must understand how teachers can and do support students' innate spirituality. This article presented a theoretical understanding of how teachers incorporate spirituality into their teaching: *Spiritual Pedagogical Content Knowledge*. Understanding how teachers can support students' innate spirituality – and supporting them as they do so – is an imperative of our time.

References

- Barkin, S. H., Miller, L., & Luthar, S. S. (2015). Filling the void: spiritual development among adolescents of the affluent. *Journal of Religion and Health*, 54(3), 844-861. doi: 10.1007/s10943-015-0048-z
- Berkowitz, M. W., Althof, W., & Bier, M. C. (2012). The practice of pro-social education. In P. Brown, M. W. Corrigan, & A. Higgins-D'Alessandro, (Eds.). *The Handbook of Prosocial Education* (71-90). Lanham, MD: Rowman & Littlefield.
- Bonelli, R., Dew, R. E., Koenig, H. G., Rosmarin, D. H., & Vasegh, S. (2012). Religious and spiritual factors in depression: Review and integration of the research. *Depression Research and Treatment*, 2012, 1-8. doi:10.1155/2012/962860
- Button, T. M., Stallings, M. C., Rhee, S. H., Corley, R. P., & Hewitt, J. K. (2011). The etiology of stability and change in religious values and religious attendance. *Behavior Genetics*, 41(2), 201-210. doi:10.1007/s10519-010-9388-3
- Collaborative for Academic, Social, and Emotional Learning (CASEL). (2003). *Safe and sound: An educational leader's guide to evidence-based social and emotional learning (SEL) programs*. Chicago, IL: Collaborative for Academic, Social, and Emotional Learning (CASEL).
- Chapman, A. L., Foley, L., Barth, K., Halliday, J., & Miller, L.J. (in press). Spirituality in K-12 education. *Oxford Handbook of Psychology and Spirituality*. Oxford University Press.
- Chapman, A. L., Foley, L., Halliday, J. & Miller, L. (2021). Relational spirituality in K-12 education: A multi-case study. *The International Journal of Children's Spirituality*, 26(3), 133-157. <https://doi.org/10.1080/1364436X.2021.1898345>
- Chapman, A. L. & Miller, L. (forthcoming). The burning imperative of pedagogical relational culture. *International Journal of Educational Research*.
- Charmaz, K. (2008). Grounded theory. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (2nd ed., 81-110). Los Angeles: Sage.
- Glaser, R. (1984). Education and thinking: The role of knowledge. *American Psychology*, 39(2), 93-104.
- Gnanaprakash, C. (2013). Spirituality and resilience among post-graduate university students. *Journal of Health Management*, 15(3), 383-396. doi:10.1177/0972063413492046
- Kendler, K. S., Gardner, C. O., & Prescott, C. A. (1997). Religion, psychopathology, and substance use and abuse: A multimeasure, genetic-epidemiologic study. *The American Journal of Psychiatry*, 154(3), 322-329. doi: 10.1176/ajp.154.3.322
- Koehler, M. J., Mishra, P., & Cain, W. (2013). What is technological pedagogical content knowledge (TPACK)? *Journal of education*, 193(3), 13-19.

- Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)?. *Contemporary Issues in Technology and Teacher Education*, 9(1), 60-70.
- Koenig, L. B., McGue, M., & Iacono, W. G. (2008). Stability and change in religiousness during emerging adulthood. *Developmental Psychology*, 44(2), 532. doi: 10.1037/0012-1649.44.2.532
- Lantieri, L. (2019, April 05). Linda Lantieri remarks for the launch of the Social, Emotional, and Ethical (SEE) Learning Framework and Curriculum, New Delhi, India | April 4-6, 2019. <https://lindalantieri.org/2019/04/05/linda-lantieri-remarks-for-the-launch-of-the-social-emotional-and-ethical-see-learning-framework-and-curriculum-new-delhi-india-april-4-6-2019/>
- Lantieri, L. (2002). *Schools with spirit: Nurturing the inner lives of children and teachers*. Boston: Beacon Press.
- Lewinsohn, P. M., Shankman, S. A., Gau, J. M., & Klein, D. N. (2004). The prevalence and co-morbidity of subthreshold psychiatric conditions. *Psychological Medicine*, 34(4), 613-622.
- Luthar, S. S., Barkin, S. H., & Crossman, E. J. (2013). "I can, therefore I must": Fragility in the upper-middle classes. *Development and Psychopathology*, 25(4.2), 1529-1549. doi: 10.1017/S0954579413000758
- McClintock, C. H., Anderson, M., Svob, C., Wickramaratne, P., Neugebauer, R., Miller, L., & Weissman, M. M. (2019). Multidimensional understanding of religiosity/spirituality: Relationship to major depression and familial risk. *Psychological Medicine*, 49(14), 2379-2388.
- McGrath, R. E. (2018). What is character education?. *Journal of Character Education*: 14(2), 23-35.
- Miller, L. (2015). *The awakened brain; The new science of spirituality and our quest for an inspired life*. Random House.
- Miller, L. (2015). *The spiritual child: The new science on parenting for health and lifelong thriving*. Macmillan.
- Miller, L., Balodis, I. M., McClintock, C. H., Xu, J., Lacadie, C. M., Sinha, R., & Potenza, M. (2019). Neural correlates of personalized spiritual experiences. *Cerebral Cortex*, 29(6), 2331-2338. doi: 10.1093/cercor/bhy102
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054.
- Mishra, P. , Spiro, R. J. , & Feltovich, P. J. (1996). Technology, representation, and cognition: The prefiguring of knowledge in cognitive flexibility hypertexts. In van Oostendorp, H. , & de Mul, A. (Eds.), *Cognitive aspects of electronic text processing* (pp. 287–305). Norwood, NJ: Ablex.

- Mojtabai, R., Olfson, M., & Han, B. (2016). National trends in the prevalence and treatment of depression in adolescents and young adults. *Pediatrics*, 138(6), e20161878.
- Putnam, R. T. , & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1), 4–15.
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard educational Review*, 57(1), 1–22.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14.
- Smith, C., & Denton, M. L. (2009). *Soul searching: The religious and spiritual lives of American teenagers*. Oxford, UK: Oxford University Press.
- Spiro, R. J. , & Jehng, J.-C. (1990). Cognitive flexibility and hypertext: Theory and technology for the nonlinear and multidimensional traversal of complex subject matter. In Nix, D. , & Spiro, R. (Eds.), *Cognition, education, and multimedia: Exploring ideas in high technology* (pp. 163–204). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Weissberg, R. P., Durlak, J. A., Domitrovich, C. E., & Gullotta, T. P. (2015). Social and emotional learning: Past, present, and future. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (p. 3–19). The Guilford Press.

Contact email: alc2295@tc.columbia.edu