

# Cultivating layered literacies: Developing the global child to become tomorrow's global citizen

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## Abstract

Disappearing cultural, political and physical boundaries push humanity beyond a one-community perspective. Global citizenry requires a set of literacies that affect the ability to communicate effectively, think critically and act conscientiously. This challenges educators to consider reframing instructional practices and curricular content. The authors promote a transliterate approach spanning communication platforms, including layered literacies: critical, civic, collaborative, creative, cultural, digital, environmental, financial, and geographical. Promoting layered literacies provides a landscaped view of reality (featuring a depth and breadth of knowledge and understanding that cultivates culturally sensitive communication skills), increases critical thinking and empowers learners as agents of change. The authors advocate for a paradigm from which teachers can construct curriculum, meet the challenges of a global community and cultivate layered literacies.

**Keywords:** literacy; global citizenship; global education; global perspective; transliterate

## Introduction

If we are to realize a better future for children and youth, then educators around the world must move towards creating curricula inclusive of literacies that affect learners' abilities to communicate effectively, think critically and act conscientiously. This call for action demands innovative approaches to integrated instructional practices, critical habits of mind, and a shared vision of the cognitive, affective and social needs of the next generation of world citizens. Growth and sustainability of a complex society demands that citizens be armed with knowledge and understanding that cultivates culturally sensitive communication skills, increases critical thinking and empowers learners as agents of change. Empowering students with layered literacies enables them to better navigate the intricacies of a global society in which boundaries are rapidly fading. Shulsky and Hendrix (2016: 102) 'define *globalization* as the interdependence and connectedness of the human condition. This definition is expansive in nature and includes *all* and *everything* that impacts humanity, including the economic health of societies, access to human rights, and treatment of the planet'. Layered literacies are essential to the development of the global child. The power of the layered approach to these individual literacies promotes a synergistic experience that provides a holistic view of the world for learners (Shulsky and Hendrix, 2016). An integrated multi-literacy approach ensures the future will be a place in which world citizens collaboratively solve the complicated challenges they will inevitably encounter.

In the educational context literacy has been traditionally understood to be the individual's ability to read and write. Literacy has evolved to take on layered expressions that address fading boundaries and access to global information. In the context of this article, the authors build upon the prior work of Shulsky and Hendrix (2016: 103) in their expanded interpretation of literacy as the ability to 'critically recognize, think, investigate, communicate, and advocate'. They suggest that seven literacies help frame curricular development in elementary education; these include civic, collaborative, cultural, critical, problem solving, digital literacies, and literacies in action. The authors of this article elaborate, extend, and revise these literacies to address the complexities of developing the global child and to broaden the integration of multi-literacies across disciplines.

## Global education

As early as 1979, scholars discussed the components of a global perspective and how educators can purposefully construct experiences that cultivate this global viewpoint. Hanvey (1982) identified five dimensions of the global perspective to facilitate one's broadening view of the world. The five dimensions are perspective consciousness, 'state of the planet' awareness, cross-cultural awareness, knowledge of global dynamics, and awareness of human choices. Anderson (1982) merged these dimensions with her own ideas to include the conception of the world as a global system and awareness of choices and opportunities for action. The development of a global perspective is a key element in global education. More than ever, in today's world where boundaries have faded, the work of these scholars resonates with urgency and the need for imperative action in expanding world views. In the face of this challenge, the authors contend that the skills required for a global perspective should be intentionally embedded in curricula.

One of the largest associations focused on social studies education within the United States and 69 other countries, the National Council for the Social Studies (NCSS), states that global education develops the 'skills, knowledge, and attitudes needed for responsible participation in a democratic society and in a global community in the twenty-first century' (Chapman *et al.*, 1982: 1). The United Nations Educational, Scientific and Cultural Organization (UNESCO) specifies the goals of a global education to include:

- an understanding of interconnectedness with others from around the globe;
- an increased knowledge of how economies, cultures, environments, governments and geography affect all citizens;
- the cultivation of the skills, attitudes and values that promote collaboration and empowered action to change on both an individual and collective level;
- the actions that develop a socially just and sustainable world (Castle, 2014).

Learning experiences designed with these goals in mind will enable learners to 'see themselves as global citizens who can contribute to a more peaceful, just and sustainable world' (Quittner and Sturak, 2008: 2). The world of the future is dependent upon the refined skill sets of the next generation. This future of inevitable constant change, deepening complexity and unprecedented challenges demands citizens be armed with the knowledge promoted within global education and with the development of a global perspective.

## Educating the whole child

Preparing global citizens requires educators to consider the need for developing well-rounded learners. Recognizing learners as whole persons, 'not mere collections of attributes' (Noddings, 2005: 5), schools must take responsibility for providing learners with 'rich educational experiences – experiences that will enable them to become active citizens in a democratic society' (Noddings, 2005: 7). These experiences must go beyond simply teaching traditional content through siloed curricula and should move towards a more holistic perspective where critical thought is given to building moral, social and emotional characteristics. Since the time when John Dewey first introduced experience in education, standardized testing and accountability have altered classrooms, creating learning environments that promote content-driven rote memorization with few opportunities for discourse, discussion and critique. Dewey (2001) challenges educators to consider:

Whatever is uppermost in his [i.e. the learner's] mind constitutes to him, for the time being, the whole universe. That universe is fluid and fluent; its contents dissolve and reform with amazing rapidity. But, after all, it is the child's own world. It has the unity and completeness of his own life. He goes to school, and various studies divide and fractionize the world for him.

(Dewey, 2001: 105)

In modern-day classrooms in which curricula are compartmentalized, learning experiences are devoid of the interdisciplinary fluidity in which learners experience curriculum in a full-bodied, interconnected way. Erasing the borders between the individual content areas enables learners to make connections across disciplines, viewing the world through a holistic lens. Embracing this perspective will encourage democratic freedom and empower learners to view world problems with a more valued understanding of the perspectives of others, moving beyond themselves. Providing for the whole child requires a broader appreciation of educational needs beyond cognitive development, to include social, emotional and motivational factors in human development and learning. 'Programs that address the whole child (cognitive, emotional, social, and physical needs) are the most successful at improving any single aspect – for good reason' (Diamond, 2010: 781). Educating the whole child requires teachers to provide learners with consistent learning experiences that build responsible and caring citizens, which enable students to 'solve problems on their own, question assumptions, and reason their way to solutions' (Diamond, 2010: 780), leading to civic participation.

## Literacies

The traditional definition of literacy is the ability to read and write. In the context of our current digitally linked world, the traditional approach to literacy requires an expanded definition of what it means to be a literate citizen. Current scholarship on transliteracy has expanded this definition to refer to literacy that crosses all communication platforms, including sign language, speech, reading, writing, mass media and social media (Sukovic, 2005). The authors reframe literacy further by suggesting that specific layered literacies are needed for understanding, problem solving, and taking informed action to advance and protect our global society. The transliterate approach described in this article provides educators with a guide to begin deepening their own perspectives of literacy and start integrating layered literacies into their curricula

and instructional practice. The literacies are presented as an ever-expanding list; fluid, not finite. They include critical, civic, collaborative, creative, cultural, digital, environmental, financial, and geographical literacies. Readers are encouraged to approach the literacies as inquiries of practice and beginning points for innovation. To this end, each section is designed to unpack the layered literacies and provide critical questions for consideration in curriculum development. The authors present a set of guiding questions for teachers, curriculum developers and teacher educators to consider as they design lessons that cultivate the proposed literacies within learners. These questions are presented as starting points to support exploration of the literacies when developing curricula. The overarching goal is to introduce educators to the many literacies learners need to understand the world, its people and its challenges, and to empower them to apply informed knowledge for change. Although multiple studies have been conducted that examine the impact of individual or paired literacies (e.g. scientific and language literacy; technology and cultural literacy) on student learning, more complex studies that explore the impact of a layered literacy approach are absent (Sharma, 2016; Donohue and Kelly, 2016). The education paradigm remains focused on the outcomes of knowledge-based education and fails to study the impact of holistic transliterate education on student outcomes.

## Critical literacy

Critical pedagogy presents teaching inspired to question what is known to be truth, the source of common narratives, the influences of one's perceptions, and the effects of lived experiences (Kincheloe, 2005; Hinchey, 2004; Freire, 1992). This paradigm demands learners read both the *word* and the *world* deeply and more consciously (Freire, 1992). In the age of globalization and rapid technological advances, critical literacy is an essential element in education. In a complex world of blurred cultural, political and physical boundaries, complicated moral questions and increased humanitarian action, citizens require the ability to read between the lines of constructed narratives and hidden agendas in order to solicit multiple perspectives, uncover biased motives and access humanitarian decision making (Agarwal-Rangnath *et al.*, 2016; Shulsky and Hendrix, 2016). These abilities are echoed in the National Council for the Social Studies (NCSS)'s *College, Career, and Civic Life Framework for Social Studies State Standards*, in which disciplined inquiry, critical investigation and the practice of informed action within communities is emphasized as foundational to K-12 Social Studies curricula (NCSS, 2013b). UNESCO further expands on this notion, as articulated in the views on twenty-first-century education set out in their *Education 2010: Framework for Action* (UNESCO, 2015).

As a mindset, critical literacy is not a packaged set of strategies and skills (Teitelbaum, 2011). The paradigm includes four dimensions: 'disrupting the commonplace, interrogating multiple points of view, focusing on sociopolitical issues, and taking action and promoting social justice' (Lewison *et al.*, 2002: 382). As a result, in the context of teacher education, the introduction to critical literacy can be challenging for teacher candidates who are often fearful of controversy in the curricula and classroom. Despite these challenges, critical literacy remains an imperative habit of mind to develop in learners as they try to make sense of the complex world before them.

## Questions for consideration

Consider the following questions when designing lessons and curricula that integrate critical literacy:

- Are multiple perspectives represented? Whose voice is missing?
- What are the underlying assumptions and biases of the given narrative?
- In what ways will the learner's lens expand or shift?
- How does this activity/lesson inform, prepare and ready learners in their role as world citizens?

## Civic literacy

I know no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education. This is the true corrective of abuses of constitutional power.

(Thomas Jefferson to William C. Jarvis, 28 September 1820)

As a founding father, Thomas Jefferson understood the strong correlation between democracy and education. An uneducated 'we the people' fails to manifest the vigilance required of a citizenry that can demand American politicians safeguard the democratic principles framed within the United States Constitution. Responsibility for the development of American citizens has, historically, been placed firmly within the walls of American schools (NCSS 2013a, 2013b). NCSS echoes this need for strong citizenship education within social studies classrooms and the larger school community (NCSS, 2010). At a foundational level NCSS (2010: 9) has promoted civic competency, 'the knowledge, intellectual processes, and democratic dispositions required of students to be active and engaged participants in public life'. Shulsky and Hendrix (2016) expand on this notion and define civic literacy as the ability of the people to shape democracy through their voice as guided by their ability to critically monitor, support and advocate for the democratic principles framing this country.

In the new global context, citizenship education requires a more expansive approach in order to move beyond the idea of local and national citizenship roles and expand towards the role of global citizen. This expanded role of citizen is echoed by NCSS (2010), as they claim the purpose of the social studies curricula is 'to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world' (NCSS, 2010: 3). The learners in classrooms today need to be ready to understand the implications and need for participation in civic decisions to solve problems of the world. This task needs to move beyond compartmentalized social studies curricula and become a shared vision that is consistently intertwined across the educational experience.

## Questions for consideration

Consider the following questions when designing lessons and curricula that integrate civic literacy:

- What are civic ideals and practices and what questions are important to ask about them?

- What do civic ideals and practices mean to our nation and others?
- How do students translate civic ideals and practices into meaningful participatory civic actions?
- How does this activity/lesson inform, prepare and ready learners in their role as world citizens? (NCSS, 2010).

## Collaborative literacy

Collaborative literacy is a multidimensional term often used to describe people's ability to work effectively and productively as a collective to discover new ideas, encourage innovative thinking, and gain multiple perspectives in problem solving. Multiple perspectives create powerful synergy in solving complex problems and finding sustainable solutions. Collaborative literacy creates a climate in which trust and openness lead the way towards divergent thinking and varying interpretations, fostering participation in interactive, collective contexts (Minkel, 2013; Wood et al., 2001).

In the face of the unseen challenges of the future, it will be necessary for the next generation of problem solvers to value and embrace working with others in seamless, inherent and cohesive collectives, while demonstrating an ability to work effectively and respectfully with one another. Collaborative literacy fosters the ability to exercise flexibility and the willingness to compromise while sharing responsibility and honouring individual contributions (P21 Partnership for 21st Century Learning, 2007). This is an imperative mindset in a world where, as Jerald (2009: 14) states, 'The biggest change in the American workplace is the massive increase in *horizontal* collaboration'. Such collaboration warrants expanding beyond one's expertise and culture to create rich and productive partnerships that could potentially extend across national, cultural and professional boundaries.

In the context of PK-12 classrooms, establishing collaborative learning environments that encourage the exchange of complex views regarding critical issues empowers students to become more active learners as well as active citizens. Such collaborative experiences play a critical role in educating global citizens. Citizens that possess these skills in their toolkit will be empowered to view, interpret, analyse and solve world problems in innovative and unbounded ways.

## Questions for consideration

Consider the following questions when designing lessons and curricula that integrate collaborative literacy:

- Are processes in place that encourage learner-centred facilitation of successful group dynamics?
- Are learners encouraged to hear diverse perspectives, understand personal backgrounds and dispositions, and consider them within the collaborative project?
- Are learners empowered to work collaboratively to solve problems, find solutions and expand knowledge?
- How does this activity/lesson inform, prepare and ready learners in their role as world citizens?

## Creative literacy

According to P21 Partnership for 21st Century Learning (P21), 'a focus on creativity, critical thinking, communication, and collaboration is essential to prepare students for the future' (P21 Partnership for 21st Century Learning, 2007: n.p.). The complexity of living and working in the twenty-first century requires the capacity of innovative thought in order to cultivate the entrepreneurial and inventive spirit (P21 Partnership for 21st Century Learning, 2007). In a world where the skills and knowledge required in the workplace are becoming more specialized and complex, access to creative thought is essential (Robinson, 2011). In order to assure this required creative disposition, educational systems must be focused on the development of creative and innovative thought (Robinson, 2011).

Sadly, in the current educational landscape, scripted curricula and high-stakes standardized testing often restrict learning environments. In the face of these challenges, Sir Ken Robinson declares, 'Given the challenges we face now, the most profound shift has to be in how we think about our own abilities, and those of our children' (Robinson, 2011: 17).

To this end, the authors assert that creative literacy should be an integral part of learning, infused throughout curricula. Creative literacy is a layered skill that extends over artistic endeavours, thinking processes and decision making. It entails learning, communicating and solving problems through the expression of original thoughts and ideas. Access to creative thought empowers learners to generate new ideas that carry the world into the unknown future and better equips learners to enrich the global community. These thinking paradigms aid in developing global-minded problem solvers.

### Questions for consideration

Consider the following questions when designing lessons and curricula that integrate creative literacy:

- Is there an opportunity for unconventional approaches to the end product?
- Does learning allow for the expression of ideas through a variety of artistic media?
- Does learning promote the evolution of ideas through innovative thinking, investigation and analysis?
- How does this activity/lesson inform, prepare and ready learners in their role as world citizens?

## Cultural literacy

According to Shulsky and Hendrix (2016) cultural literacy is the ability to honour the voices of cultures and their interconnectedness. This idea moves beyond the superficial 'tourist' approach often present in today's society to deepen authentic understanding of others' personal beliefs, cultural expression and lived experiences. Access to diverse cultural landscapes is at our fingertips through ever-expanding technology. Kirkwood *et al.* (2014) assert that instantaneous access to the vast array of communities around the world mandates that learners possess a knowledge base regarding culture that moves beyond the typical, superficial, cultural show-and-tell.

As educators, Merryfield (2010) suggests, we should adopt habits of mind that support the development of authentic cultural learning. Shulsky and Hendrix (2016: 108) articulate these habits as the ability to:

- 1) zoom out from one's personal cultural vision to incorporate larger contexts (e.g. *my world* to the world *beyond* my town, state, nation);
- 2) develop a *perspective consciousness* that enables understanding of different viewpoints as driven by cultural beliefs and norms; 3) analyze cross-cultural similarities and differences; and 4) navigate unavoidable cultural clashes with positive and productive results.

The core cultural knowledge that one possesses provides the context from which one can immediately draw when solving problems. This promotes oneness and leads to acceptance and global harmony: 'By recognizing various cultural perspectives, learners become capable of understanding diverse perspectives, thereby acquiring the potential to foster more positive relations and interactions with diverse people within our own nation and other nations' (NCSS, 2010: 26). This cultural, global mindset is essential in a world where technology is the conduit for our cultural connections and experiences.

### Questions for consideration

Consider the following questions when designing lessons and curricula that integrate cultural literacy:

- Does the learning support an environment that encourages cultural expression?
- Does learning allow for diverse cultural perspectives and the honouring of each culture's characteristics?
- Does the learning promote the inclusion of all cultural perspectives in the analysis of problems and development of solutions related to shared global challenges?
- How does this activity/lesson inform, prepare and ready learners in their role as world citizens?

### Digital literacy

In his early work Richard Lanham (1995: 198) claimed that 'literacy' has been extended beyond the earlier meaning of simply an individual's 'ability to read and write' to a broader definition inclusive of an individual's ability 'to understand information however presented'. Digital literacy in its infancy was defined as 'the ability to understand information and – more importantly – to evaluate and integrate information in multiple formats that the computer can deliver. Being able to evaluate and interpret information is critical ... you can't understand information you find on the Internet without evaluating its sources and placing it in context' (Gilster, 1997: 6). If, as educators, we are to prepare students to be successful in the twenty-first century, and by extension the global society, then digital literacy must be a critical component of pre-service teacher education. Teacher candidates need to understand the purpose for developing the global child and be exposed to digital literacy development that moves beyond technical abilities to include competencies that prepare students to understand geographical, social, ethical, political and economic aspects of our global society (Leu *et al.*, 2007; Van Joolingen, 2004). In keeping with technological advancements, learners must be proficient in the skills, strategies, dispositions and social practices needed to access information and communicate with an understanding of multiple viewpoints sufficient to bridge worldwide communities and interact on a global level.

Our digital society promotes immediate access to information from around the world. Global citizens require the skills to navigate the massive amount of digital information across the globe. The ability to communicate, share ideas and solve problems worldwide is essential to living in a world without borders. Access to worldwide information enables students to educate themselves and to become aware of the complexities of the world and the people who live in our digital society. This awareness leads to student involvement in making informed decisions and the potential for action that helps to solve world problems.

### Questions for consideration

Consider the following questions when designing lessons and curricula that integrate digital literacy:

- Does the inclusion of digital technologies deepen understanding and promote global interaction?
- Do various digital sources relevant to the learning objective exist (e.g. online text, multimedia, social media)?
- Can digital sources be established as valid and reliable (e.g. three primary sources)?
- How does this activity/lesson inform, prepare and ready learners in their role as world citizens?

### Environmental literacy

Throughout the 1970s, several proclamations and guiding principles were developed to guide environmental curricula: the Stockholm Declaration, the Belgrade Charter and the Tbilisi Declaration. In 1989, UNESCO expanded on the work of the Tbilisi declaration to state, 'Environmental literacy is a basic functional education for all people, which provides them with the elementary knowledge, skills, and motives to cope with environmental needs and contribute to sustainable development' (UNESCO, 1989: 1).

When examining this literacy, knowledge can include both ecological knowledge and knowledge of environmental issues, while the associated attitudes and values include moral reasoning, ethics, awareness and a sensitivity to the importance of the environment. Environmental sensitivity is considered a critical, entry-level variable involved in the development of environmental citizenship behaviours (Hungerford and Volk, 1990).

The current world narrative concerning environmental issues is divisive and, some would say, controversial. Within this highly politicized landscape it is imperative that citizens are informed on their role as protectors, nurturers and advocates for the environmental health of the global community. Environmentally literate citizens possess environmental knowledge, skills, sensitivity, attitudes, values, personal involvement and responsibility (Disinger and Roth, 1992). Leaders in the field of environmental education agree that competence in these areas requires a balance of development in the psychomotor, affective and behavioural domains, resulting in the cultivation of an active and informed citizen.

Hungerford and Volk (1990: 267) note that 'Issue awareness does not lead to behavior in the environmental dimension ... instruction must go beyond an awareness or knowledge of issues. Students must be given the opportunity to develop the sense of ownership and empowerment so they are fully invested in an environmental

sense and prompted to become responsible active citizens'. Understanding human interconnectedness with the natural world is vital for developing students' ability to make decisions regarding environmental issues and to inspire action for overcoming those challenges in order to sustain a healthy Earth.

### Questions for consideration

Consider the following questions when designing lessons and curricula that integrate environmental literacy:

- Does the learning develop an awareness of the interconnectedness of humans and the environment?
- Does the learning include opportunities to investigate and analyse environmental issues and make accurate conclusions about effective solutions?
- Does the learning inspire participatory action through real-world, problem-based experiences?
- How does this activity/lesson inform, prepare and ready learners in their role as world citizens?

### Financial literacy

Financial literacy can be defined as 'Possessing the skills and knowledge on financial matters to confidently take effective action that best fulfills an individual's personal, family and global community goals' (National Financial Educators Council, 2013: 1). According to the Advisory Council of Financial Capability, 'a financially capable population is required for 1) restoring upward economic mobility and reducing the widening income and wealth gap, 2) sparking entrepreneurship, which drives job growth, and 3) having an informed civic dialogue on taxes, entitlements, government debt, and other critical issues facing our country' (President's Advisory Council on Financial Capability, 2013: iv).

Gabbin and Thomas (2014: 8) note that the 'Knowledge needed to be financially literate has increased exponentially from what high school graduates needed to know 30 years ago'. The Council for Economic Education (CEE) guides American economic education and states an imperative need for financial education to be strongly rooted in schools, beginning at preschool. Currently in the United States there is a burgeoning focus on emphasizing financial literacy in the curriculum. Forty-six states now specify personal financial literacy requirements for their K-12 education systems (Council for Economic Education, 2013).

Development of financial literacy should extend beyond a requirement for personal financial skills and knowledge in order to deepen the impact within society as a whole. The authors contend that this expanded view will enable citizens and communities to positively contribute to a global society through their understanding that money offers access to power, influence and opportunity.

### Questions for consideration

Consider the following questions when designing lessons and curricula that integrate financial literacy:

- Does the learning develop an understanding of the elements of being financially literate?
- Does the learning promote personal and collective fiscal responsibility?

- Does the learning provide opportunities for engagement in real-world financial experiences?
- How does this activity/lesson inform, prepare and ready learners in their role as world citizens?

## Geographical literacy

According to the National Geographic Society (2012: para. 1), *geo-literacy* is 'a new term for a long-standing idea consisting of three components: interactions, interconnections and implications. It is the ability to use geographic understanding and geographic reasoning to make far-reaching decisions'; 'one must understand how human and natural systems connect places to each other' (Edelson, 2011: para. 6). Such an approach to decision-making skills stretches beyond the here and now with consideration for the long-range impact on both the immediate and the distant future.

The world is interconnecting at a level beyond our current understanding thanks to ever-expanding technological advances and the globalization of the marketplace. As a result, future generations are required to understand the idea of 'place' in more complex and layered ways. This edict is strongly promoted by the National Geographic Society:

At National Geographic, we are concerned about geo-literacy because we believe that increasing geo-literacy will lead to better protection of natural and cultural resources, a reduction in conflict, and more livable communities. In addition, we believe that having a geo-literate populace is also critical for maintaining economic competitiveness and national security in our dynamic, interconnected world.

(National Geographic Society, 2012: para. 11)

The duty of the educational system, in light of this proclamation, is to cultivate the skills and dispositions of the geo-literate learner through multiple areas within the school day. This comprehensive approach is critical to readying the next generation of global citizens.

## Questions for consideration

Consider the following questions when designing lessons and curricula that integrate geographical literacy:

- Does the learning develop an understanding of the interconnectedness of people and place?
- Are learners provided with opportunities to understand both the physical and the human characteristics of a place?
- Is the concept of the movement of people, goods and ideas from one location to another present?
- How does this activity/lesson inform, prepare and ready learners in their role as world citizens?

These literacies, in culmination, are set out as a starting point for educators willing to face the challenge of infusing the idea of global citizenship throughout their classrooms. As noted earlier, the list of literacies presented in this article is not finite and readers are encouraged to elaborate on the list based on their expertise, experiences and the context of their teaching communities. The authors remind readers that addressing

even one of the proposed literacies can make an impact within their own classrooms, their students' lives, and the world beyond the classroom. Readers are encouraged to consider where their talents and expertise lie as they explore global literacies and seek partnerships in their school community, local community and the communities beyond.

## Barriers to teaching layered literacies

Teachers today are often faced with barriers when educating learners, even more so when attempting to educate learners to think globally. The inclusion of layered literacies in the curriculum provides learners with an expansive view of the global community, cultivating culturally sensitive communication skills, increasing critical thinking and empowering learners as agents of change. As educators implement the ideas proposed in this article, barriers need to be considered and addressed within individualized contexts. Figure 1 offers a schematic illustration of possible barriers. This illustration is limited in scope and not meant to address all potential barriers/tensions. The nature of the transliteracy approach to education is complex due to the present and ever-changing tensions and competing perspectives worldwide.

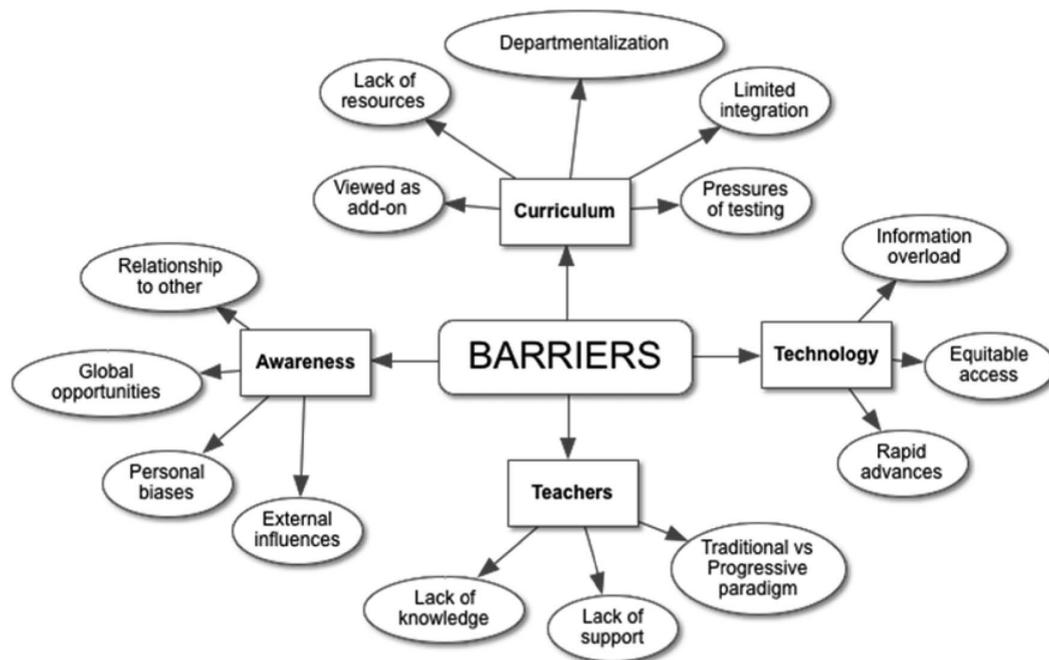


Figure 1: Barriers to teaching layered literacies

## Conclusion

Demographic, economic, social and political changes influence the decisions made around the globe. In a world where change is constant, learners must understand others' cultures and perspectives, as well as the influence, impact and effect of dynamic changes. The proposed layered literacies outlined in this article can ready learners to understand the connectedness of humanity. Developing the whole child within the context of these literacies lays a foundation upon which teachers can expand capacity for global awareness and provide learners with a holistic view of the world (Shulsky and Hendrix, 2016). This article serves as a call for educators to include in their curricula learning experiences that promote the literacies of the whole child and develop a

global consciousness that will enable learners to analyse, understand and resolve complex problems. The authors challenge educators to integrate multi-literacies across disciplines through elaboration, extension and revision of these literacies, developing the global child to become tomorrow's global citizen.

## Notes on the contributors

**Debra Shulsky**, a social studies educator of over 20 years' standing, currently designs learning experiences for EC–12 undergraduate teacher candidates that explore pedagogies that cultivate the essential literacies and habits of mind required of critically engaged global citizens. Based in social justice, her body of work illuminates practical classroom strategies that empower young learners to see themselves as change agents, readied to take critically informed action in their communities and world at large.

**Sheila F. Baker** is an assistant professor in the College of Education School Library and Information Science programme at the University of Houston–Clear Lake. Having taught for over 20 years in public schools, she currently empowers teachers and pre-service school librarian candidates to expand their knowledge of information and digital literacies. In a world where many borders and barriers to worldwide information have been virtually eliminated, she teaches students literacies that are fundamental in nurturing global citizens.

**Terry Chvala** graduated from Appalachian State University with a degree in Early Childhood. After receiving her M.A.T., she achieved her National Board Certification, where she focused on lesson integration in literacy and social studies, specifically blending culturally responsive children's literature with the Core Democratic Values. She taught in the public schools for 20 years. Currently, she is in her eighth year of teaching in the Early Childhood programme at the University of Houston–Clear Lake.

**Jana M. Willis** is a professor in the College of Education Instructional Design and Technology programme at University of Houston–Clear Lake. She designs, develops and implements online/hybrid courses and works with pre-service/in-service teachers on effective use of technology in the EC–12 curriculum. Dr Willis works with a local district's gifted and talented programme, teaching 4th/5th-grade gifted students in video game design/development. Research interests include serious games, digital stories, technology integration, digital literacy and project/problem-based learning.

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