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Impact Study of an "Action Leadership for Adolescent Approach" in Traditional Education Settings

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Abstract

Action Leadership for Adolescents (ALA) is a cutting-edge inclusive approach to adolescent leadership development. The Self-Reflection Evaluation Inventory evaluated the growth of 21st-century skills taught through the five principles of ALA. The five principles: Brain Balance, Skill Development, Interdisciplinary Collaboration, Innate Wisdom, and Cultural Responsibility; guided the curriculum of a course for seniors in a traditional high school and validated the hypothesis that the curriculum rooted in these principles ensured growth and empowerment for adolescents. ALA was born from a combination of Positive Youth Development and Transformational Leadership models and the efficacy of the approach was confirmed through the mixed-methods action research study presented in this article. Overall, the participants of the study demonstrated significant growth in the maturation of their 21st-century skills. The next steps for ALA include partnering with social researchers to continue analyzing the efficacy of ALA in all activities for adolescents.

Keywords

Adolescent Empowerment, Social-Emotional Learning, Equity, Whole Child

1. Introduction

This research presents a new approach to adolescent development called *action leadership for adolescents* (ALA), which is strongly tied to positive youth development (PYD; Lerner et al., 2011), a strengths-based framework for adolescent development, and transformational leadership practices (Bass, 1990) that elevate the interests of others. The goal of ALA is to foster a more competent society where adolescents, defined as people between the ages of 10 and 19 (Institute of

Medicine, 2011), are given a deliberate space to have real-time experience in meaningful leadership roles.

ALA is a multifaceted model that builds on the PYD concept that practitioners lead with intentionality to create and foster space that protects the assets of youth and provides opportunities for them to thrive (Edberg, 2008; Lerner et al., 2005). PYD and ALA support the idea that youth are resources to be developed because of their untapped potential and assets. Introducing adolescents to transformational leadership using a PYD approach can leverage neuroplasticity and an undeveloped prefrontal cortex and effectively enhance the development of 21st-century skills. The ALA model suggests that not only do practitioners need to support adolescents using strategies imbued in the PYD model, but they also need ALA to provide the space and the guidance.

This article presents the results of a research study conducted in a brick-and-mortar high school during 2021-2022 to examine the efficacy of the ALA model in a traditional classroom. The study objective was to determine if the intentionally integrated use of ALA principles in the design of the *Civics in Action* curriculum would increase 21st-century skills as defined by the World Economic Forum (WEF; Whiting, 2020). The participants were 76 high school seniors who just returned to full, in-person, mask-optional school post-COVID-19 schooling that had consisted of virtual learning, cohort learning, and canceled school. Their skill growth over an 8-month period was measured using the Self-Reflection Empowerment Inventory (SREI), created explicitly for assessing the impact of ALA and its five principles: 1) brain balance, 2) interdisciplinary collaboration, 3) skill, 4) innate wisdom, and 5) cultural responsibility. I propose that these principles work in tandem to promote the integration of skills, practices, and actions. The fusion of combined values and skills can then create a competent, reflective, civic-minded leaders more capable of meeting the pressures and expectations required of empowered and engaged citizens (and employees) today.

To situate the research, it is important to review historical approaches to adolescent development, the emergence of PYD, a convergence with transformational leadership theory, the five ALA principles in depth, the design of the Self-Reflection Empowerment Inventory (SREI), and the use of a survey that connects those principles to real-world skill development and assesses skill growth as a reflection of ALA efficacy.

2. A Historical View of Adolescent Development

The early history of adolescent development models, grounded in a "deficit mindset," is wrought with concepts and approaches that blinded practitioners with the idea that adolescent years were tumultuous and burdensome (Hall, 1904). A deficit mindset has many implications, including but not limited to negativity bias and general pessimism. Hall's (1904) prevalent deficit development model suggested that youth were problems to be managed. Hall's theory remained as the predominant adolescent model of development for much of the

20th century. Stigmas attached to this deficit development model led practitioners and theorists to support the idea that the significant biological and neurological changes that adolescents experience led to tumultuous personal and social problems (Anthony, 1969; Freud, 1969). While there is truth to the claim that adolescence can be turbulent, each period of growth in life has storms and strife.

2.1. Challenges to the Deficit Model of Adolescent Development

There were contemporaries of Hall who argued that the deficit model and negativity bias led to unfavorable stereotypes of adolescence, including Dewey (1922). Dewey argued that environments needed to progress and change, just as much as humans need to expand their experiences. Dewey's experientialist pedagogy toward human development provided traction for deficit model doubters because it opened the conversation up to discuss how everyone was contributing to an adolescent's experience and growth (Dewey, 1922). However, this experientialist pedagogy did not take center stage. It was not until the mid-1960s when researchers began sharing evidence that poked holes in the deficit development model, that a wide variety of youth practitioners realized youth development could be approached in a different way.

While there were nationwide revolutions occurring that countered the status quo in the political world, there were revolutionary feminist, anti-war, and equal rights movements brewing and scholars contributing further to critical educational studies. Lather (1991) helped to bring a feminist scholar's viewpoint to the table by contributing to the field of education as a teacher and researcher in movements for social change. Lather argued that our action produces our knowing which added ideas of emancipatory thought to education, contrasting with deficit model theory where adolescents needed to be taught and corralled into acting appropriately. Freire's *Pedagogy of the Oppressed* (Freire, 2000) exemplified the necessity of putting education at the front of radical social change and dominant thought. As radical ideas began to penetrate the field of education and question the role of education in community change, critical theorists like Catalano & Catalano (1999), Lerner (2009), Roth & Brooks-Gunn (2015) began asking how the deficit mindset and negativity bias were part of the problem. Gorski (2011) asserted that the deficit mindset model can be "most devastating…when we mistake difference—particularly difference from ourselves—for a deficit," (Gorski, 2011, p. 152). Zhao (2016) argued that the noted achievement gap had a direct relationship to a deficit driven education pedagogy, children or color, and low-income families. Heinbach et al (2019) explored the relationship between the deficit mindset and a savior mentality, the how those in more power or with greater skills can "fix" those with weaker skills and less resources.

2.2. Positive Youth Development

Benson (1997) used PYD to move research and praxis from a focus on the risk behaviors (a dominant focus of interventions) to focusing on developmental as-

sets. Additional research (Zimmerman, Phelps, & Lerner, 2008) suggested that PYD models can create positive trajectories for youth by ensuring youth are exposed and practice self-regulation skills and developmental assets. Developmental assets are skills and competencies adolescents need to be taught and practice to become contributing adult citizens. According to the Search Institute (2005), developmental assets are broken into two categories: external and internal. The Search Institute identifies external assets as "the supports, opportunities, and relationships young people need across all aspects of their lives." These include support, empowerment, boundaries and expectations, and constructive use of time. The Search Institute suggests that internal assets are "the personal skills, commitments, and values they need to make good choices, take responsibility for their own lives, and be independent and fulfilled." These assets include commitment to learning, positive value development, competency in social situations, and having a positive identity. Through learning and practicing these developmental assets, adolescents would meet failure and growth, both of which Pittman and Fleming (1991) argued were necessary for functioning adults. After all, a problem-free period of adolescence could create young adults not fully prepared for life. This research continued to guide the direction for PYD and shifted the mindset of many practitioners.

Benson et al. (2006), Catalano and Catalano (1999), Lerner (2009), and their contemporaries moved this illumination forward by developing a PYD model that emphasized the citizen-scholar collaboration. This collaboration valued both the development of skills and academics coupled with change agentry and a sense of belonging in the community. Damon (2004) suggested that community is key because that is where developmental assets are held. Community is a nest for PYD and a space where youth begin practicing their agency. Damon (1997) claimed that youth felt more successful in communities where, collectively, adults shared foundational values and beliefs. These beliefs and norms feed into the development of the child and incubate values, innate wisdom, and cultural responsibilities that will inevitably guide youth in adulthood. Sampson (2004) explained this as collective efficacy, "shared expectations for action…a neighborhood efficacy exists relative to specific tasks such as maintaining public order…social control enacted under conditions of social trust." (p. 108). When youth are intrinsically involved in this collective efficacy and have a responsibility to uphold it, it is more likely to evolve rooted in similar values and understanding from earlier generations.

2.3. Transformational Leadership

Another foundation for ALA is Bass's (1985) transformational leadership theory. ALA has direct connections to PYD as they are both grounded in the psychological development of adolescents. Although there is not wide research about Bass's transformational leadership theory and its use with adolescents, this research demonstrates the efficacy of using transformational leadership as the

primary model for ALA. The transformational leadership theory affords better integration of the regions of the brain, improves soft skill development, and allows for one's unique stamp on their leadership style. It helps participants examine their valuable and unique contributions as transformational rather than transactional leadership practices. Bass's transformation leadership theory requires an emphasis on intrinsic motivation and positive development of followers (Bass and Riggio, 2005). Key characteristics of transformational leadership include idealized influence, inspirational motivation, individual consideration, and intellectual stimulation (Bass & Riggio, 2005). As such, Bass's transformational leadership theory provided the cornerstone for ALA.

A complimentary transformational learning approach is Dweck's (2007) growth mindset approach. The thought is that too much praise could usurp the development of resilience and prohibit growth, both of which help develop characteristics needed to overcome challenges of adolescents and adulthood. This approach moves beyond the "participation trophy generation" practice of everyone receiving a participation trophy and stopping there (Cavataio & White, 2011). These ideas of constant praise and everyone winning do not help children and adolescents deal with failure when the stakes are low. It helps participants examine their valuable and unique contributions as transformational leadership practices rather than transactional. While extensive research has been done about transactional leadership models, for the purpose of this research, transactional leadership is not further addressed in this paper. The focus remains on transformational and growth mindset as they require that adolescents have training in explicit skills, time for reflection through a lens of cultural humility and responsibility, awareness of one's innate truths, and experience integrating these realizations into one's beingness.

3. Action Leadership for Adolescents and Its Five Principles

ALA was developed through my praxis in traditional and non-traditional K-12 settings. Those settings included traditional institutions of public education with 28+ students in a classroom, virtual learning pods, concentrated service-learning trips and experiences, after-school programs, and one-on-one learning opportunities. While ALA is born of my experience and praxis, it is important to note that PYD and transformational leadership form ALA's foundation. Incorporating earlier developmental models through ALA streamlines the application process for practitioners working with adolescents because it addresses the whole child. ALA takes these foundational approaches and applies the guardrails of self-reflection and awareness skills. The five principles of ALA make up these guardrails. The principles of ALA require practitioners of adolescent development to ensure we maximize the malleability of the adolescent brain that seeks novel experiences while also striving to develop the adolescent's own identity. This approach, in nature, emphasizes the value of balancing the use and implementation of one principle with another. For instance, if a curriculum, program, or lesson is focused too heavily on the praxis of one principle, the impact of the

lesson may not be as great.

The five principles are defined, then the neuro-physiological connection or overlay of the intellectual application of the skill is identified. How to recognize when the principle is being demonstrated in action is discussed and suggestions are provided regarding how to recognize the principles in action. Figure 1 demonstrates the importance of balancing the ALA principles during use. This balance or tension is often missing in educational programming.

3.1. Brain Balance

Concept: This principle ensures that there is space in the learning process for full integration of the lesson by the learner. This requires movement and cognitive reasoning to integrate skills and knowledge for personal growth, which happens most effectively when the central nervous system is in the parasympathetic mode or the generative body (Peet, 2017). The parasympathetic mode or generative body is often known as the "flow state." In this state, the body is not under fire or stressed out. Oxytocin is released and flowing which creates a greater level of trust and helps people face challenges easier (Kosfeld et al., 2005). Brain balance as a principle ensures adolescents are not stagnant in their physical experience—just sitting at a desk in a classroom with four walls—not fully integrating the lessons, skills and interactions from the class or the experience. Specifically, they need movement at least every 11 minutes; that is, the adolescent physically changes positions. This ensures blood flow and increases access to both the right and left cerebral hemispheres (Casey et al., 2008). Steinberg (2008) argued that novel experiences result in new neural pathways (communication through the corpus callosum, the fibers that connect the two cerebral hemispheres) and ignite time and space for invention, innovation, and creativity, leading to new skill development and expertise.
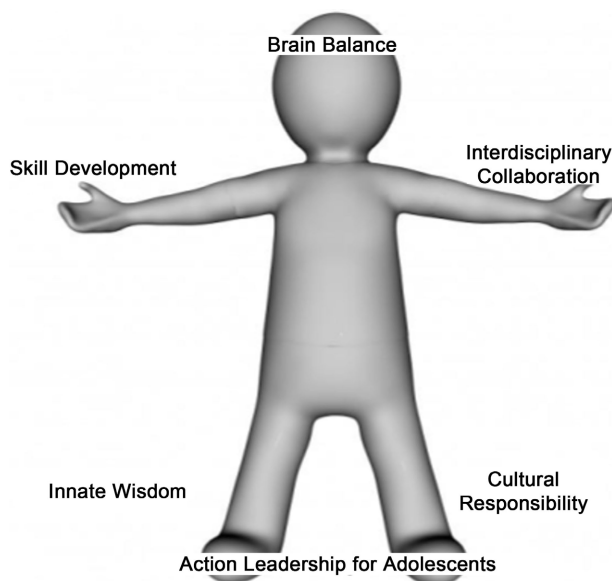

Figure 1. The principles of action leadership for adolescents.

This occurrence in the adolescent brain is vital, as an adolescent brain is malleable and has a significant amount of neuroplasticity which may heighten an adolescent's desire to take risks (Steinberg, 2008). These original experiences, including physical movement interspersed through learning, make habitual pathways for the adult brain (Steinberg, 2014). There is a hazard when adolescents are not provided the space for movement that lends itself to complex problem-solving. This will be discussed further under the principle of innate wisdom. Finally, I would argue that there is a greater risk for adolescents expediting the pruning process if they are in stagnant and repetitive situations, and this could inhibit adolescents from accessing and developing solutions in our ever-complex world.

Neurophysiological transaction: For the purpose of the ALA model, brain balance is in the head/brain in Figure 1 to replicate the power of the central nervous system in parasympathetic mode. The brain balance principle is identified in the brain because the brain is the powerhouse of the central nervous system, where the absorption and training of new information is embedded through practice and refinement. Brain balance is the central piece of ALA; it ensures there is physical, cognitive, and explicit training for adolescents and demands appropriate intermittent movement.

Recognition: Learners are actively engaged and integrating an experience or skill into their cognitive memory. Some activities that initiate movement, and therefore blood flow, include walk and talks, turn and talks, role plays, simulations, field trips, guest presentations, debates, and opportunities to make art with different mediums. Adolescents are feeling the effect of this principle at work when they are in a state of flow (Csikszentmihalyi, 1998).

3.2. Interdisciplinary Collaboration

Concept: Interdisciplinary collaboration is the cultivation of intentional connections across arenas to provide space for discussion, skill development, and critical thinking. Houldin et al. (2004) defined it as a "complex phenomenon that is often formed between two or more people from various professional fields to achieve common goals" (p. 774). This principle requires adolescents to break away from the confinement that problems have only one solution and one path to arrive at that solution, and it recognizes that the complex issues society faces require cutting-edge thinking and iterations of thinking. Collaboration embodies the notion that involving more people and ideas may take time at the outset, but the product will be of higher quality. It can inherently produce novel experiences as outlined in the importance of brain balance. Collaboration supports deeper learning for adolescents because they are forced to make connections, and it promotes inquiry-based learning opportunities. These inquiry-based opportunities can generate space for unique problem-solving.

Neurophysiological transaction: This principle is located on one of the hands in Figure 1, as a demonstration of both outreach to others and pulling in others' ideas. It is through this ongoing exchange that personal and collective growth

occurs. Due to the metacognitive awareness that must occur through the process of fully using interdisciplinary collaboration, it counterbalances skill development.

Recognition: Interdisciplinary collaboration (IC) requires intentional planning, whether in small group settings or in the organization of a field experience. IC shows up in "turn and talk" prompts in the classrooms and in small group projects. It can also look like a field trip to a museum to visit an exhibit, while also exploring the different jobs the museum requires for operation. It expands beyond a brick-and-mortar building by organizing school groups to work in partnership with local businesses and nonprofits to solve community issues. It can also be invited into a classroom discussion when addressing complex problems. Understanding the web of connection of one idea to the next is imperative for preventing unintended consequences that have negative fallout.

3.3. Skill Development

Concept: Skill development is at the opposite hand of IC in the ALA model (Figure 1) because it is crucial that skills are explicitly taught to the adolescents and that the adolescents receive and utilize them. This explicit and structured guidance can get absorbed through the malleable adolescent brain. Explicit instruction looks like an introduction to the concept, modeling the concept, practicing the concept, reflecting on the practice, and then independent and automatic use of the concept (Orton Gillingham Academy, 2023; Fletcher et al., 2019). This process is cyclical in nature as circumstances and requirements for skill and level of skill constantly change. While skills may get a name change or a facelift, adolescents need the space to be introduced to and practice marketable skills. The skills that the SREI measures (Figure 2) were explicitly taught and modeled throughout the *Civics in Action* course, then participants practiced them and added their own flavor before reflecting upon them. These skills are exchangeable and can be linked more closely with a topic of study when necessary.
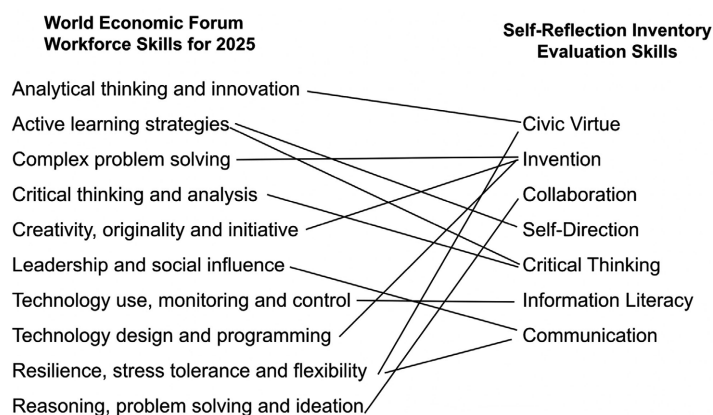

Figure 2. World economic forum workforce skills for 2025 matched to SREI skills.

Neurophysiological transaction: The idea that skill development is placed at another hand (Figure 1) indicates that the adolescent learner is ready to receive, with an open hand, and utilize the skill through practice until unique mastery is achieved. The hand is an important tool for everyone; the kinesthetic connection of using a skill and fully integrating it into one's toolbox is necessary. While each skill measured via the SREI survey doesn't require use of the hand to execute it, adolescents first need to take advantage of skills being taught to them and fully absorb them. Taking an offering usually requires use of one's hand.

Recognition: The demonstration of skill development and mastery, or the inquiry of each skill while learning the metacognition of self-reflection and awareness, embodies the concept of skill development. Skill development is recognized when there is space for the skill to be introduced, practiced, and reflected upon by the learner. When an adolescent has time to practice a skill and the teacher or facilitator can monitor growth and provide feedback on how to continue making improvements, an identified skill exists on a trajectory of growth. People who absorb and fully integrate a learned skill become more autonomous in their work and can use their understanding and metacognitive ability to explain why they did something the way they did. While the set of skills used for this study included a combination of 21st-century skills, a skill set could reflect a content area or industry more explicitly. For instance, if the content area is marine science, skills might include scuba certification, swimming, and sailing.

3.4. Innate Wisdom

Concept: Innate wisdom or indigenous truth is instinctual knowledge and intelligence. It can be that quiet voice within one's integrity, and it might be captured as the values with which one grows up. Kimmerer (2015) emphasized that actions are aligned with individual thoughts, ideas, verbal, and written words, and also with one's intuition. While innate wisdom and indigenous truths are often rooted in family and/or community values, this authentic wisdom or intuition changes and evolves over time, flexing with the circumstances. Innate wisdom is in every human being and can be one's living foundation—grounding beliefs and values that are developing or becoming refined (as with adolescents) based on generative and non-generative knowledge.

Accessing one's innate wisdom is imperative to one's growth and autonomy as a leader. Without the individuality of one's creativity or innate wisdom, invention, innovation, and progress may cease. "As they balance the information being received with information innately within them, adolescents gain skills in deciphering ideas that align with their own truths and gut instincts," (Hamdorf, 2021, p. 154). It is important that everyone, not just adolescents, identify that space and feeling when one is listening to their innate wisdom, stressing the value of creating space for this practice in adolescents, and noticing it so one can return to it.

Neurophysiological transaction: Innate wisdom is placed on one of the feet in

the ALA model (Figure 1) because it is a foundational principle for adolescents that often gets overshadowed by vulnerability to peer interactions, social pressures, and the natural progression of an adolescent finding their way into adulthood. The importance of innate wisdom being at the ground level and a principle that the rest of the adolescent relies on for continued balance is paramount for the development and celebration of each individual child. Additionally, it is juxtaposed against cultural responsibility, emphasizing the distinct and delicate balance between one's own ideas and values and that of the collective community. The actual transaction is suggesting to the adolescent that they take the time to find their center on two feet. One might suggest the *tadasana*, or standing mountain pose in yoga practices, so adolescents can learn to stand strong and in their beingness.

Recognition: When one's body is at ease, the heartbeat is slow, steady, and regulated, allowing the body to enter the alpha and theta ranges for brain waves. Csikszentmihalyi (1975) spoke to this phenomenon as a heightened awareness where one experiences high levels of engagement with little need to practice self-control to remain focused. Another researcher stated that "the flow state as a state when the brain is flooded with endorphins and dopamine is released to motivate and stabilize focus so that the front region of the brain (logic and reason) lowers in activity making innate wisdom easier to access" (A. Delille, personal communication, March 15, 2022). This process links back to the importance of brain balance. It is also in this brain state that one can access creative insights because there is space to process new and novel stimuli that initiate pathways for higher levels of wisdom and solutions.

Innate wisdom moves through individuals differently, but one can recognize it when an adolescent uses their own voice to express an idea, execute a project, or how they treat another human being. Ultimately, only the adolescent knows if they are accessing their innate wisdom, but I suggest that adolescents can access it when they feel like they are in a psychologically safe environment and will not be mentally or physically harmed for the expression of their innate wisdom.

3.5. Cultural Responsibility

Concept: The principle of cultural responsibility is the combination of self-reflection and self-awareness. This principle allows adolescents time for self-reflection, ownership, and growth. The development of cultural responsibility starts with the family, as it is the child's initial educational institution (Salvan, 2013). Salvan's (2013) ideas lead to the concept that one's actions could guide human interactions, including personal or professional relationships and financial decisions. He encourages this examination through an anthropological lens, which allows for the inclusion of ancestral practices while also holding space for contemporary actions. ALA supports this by insisting adolescents practice an outward look at the present, balancing this with their innate inner wisdom and an examination of the question, "How can I serve my culture, that I feel alive in

and belong to, so that I can protect and preserve it while being culturally competent and moving with a sense of humility?"

Cultural responsibility suggests non-confrontational learning opportunities where participants use emotional and cultural intelligence bolstered by cultural humility that moves them to action. This, in turn, creates cultural competencies that recognize and value various cultural attributes from everyone's daily lives. A new term, *sociopsychonomics*, coined by Funderburke (2017), suggests that because people are bound to their class' monetary mindset, and one's class can often dictate the experiences one has. Thus, exposure to and learning about other cultural practices will inherently be limited, breaking down some of the fabricated and systemic barriers through shared experiences can reduce these fabricated limitations.

Cultural humility and cultural competency are major factors in cultural responsibility. Cultural responsibility allows time and space for increased self-realization, a concept that Lengrand (1989) emphasized nearly 50 years ago when he discussed the importance of learners gaining increased self-realization through educational practices that supported lifelong learning. Incorporating cultural responsibility in an adolescent's educational experience supports the development of space for a sense of belonging and responsibility.

Neurophysiological transaction: In the ALA model (Figure 1), cultural responsibility is intentionally opposite innate wisdom. Both are foundational grounding points for adolescents and balance against one another. Physiologically, if cultural responsibility is shaken or unsteady, an adolescent may retreat into a safer circle where one's innate wisdom is protected. This is important, but in the transition from child to young adult, one also needs to feel the experiences of belonging and leading in a culturally responsible way that embodies characteristics found in Bass's (1990) transformational leadership theoretical approach.

Recognition: Recognizing cultural responsibility in different places is contextual because the celebration of cultural responsibility is directly reflective of one's culture, including the practices retained, resources available, and participants involved. One aspect could be the level of constructive parental (or adult) involvement and supervision in an activity. Parental and youth practitioner involvement reflect the sense of responsibility the earlier generation has toward the lifelong education of a child and its impact on the community. It can also look like exploring the answers to the questions—Where are you the safest? Where are you the happiest?—and then ensuring that the answers to those questions are provided. For example, if an adolescent says, "the church," then ensure parents and youth practitioners work to find that opportunities to be at church are available.

Cultural responsibility also begins to provide space for an adolescent to have a sense of responsibility beyond them and to practice civic stewardship and/or to protect their culture and their cultural practices. This could also look like sharing cultural traditions with people beyond their culture, starting an alliance, or a

service project to protect resources. Cultures are vast and precious. The preservation and celebration of them are paramount to the progress of the human species. So, we can remember where we came from and bring appropriate practices into the present and the future.

4. A Review of the Five Principles

Innate wisdom is the instinctual process of the neural pathways in the body that lead you in a direction that is synonymous with your cultural responsibility. Cultural responsibility requires one to employ cultural humility and self-reflection when acting in a community setting. Skill development is the capacity to learn, practice, and model a specific skill that will help build characteristics for our changing world. Interdisciplinary collaboration is a term that embodies the importance of partnerships across disciplines, so that the brain is practiced and exercised in a variety of ways and with various people. Finally, brain balance requires the physiological integration of ideas and concepts into the body—acknowledging the value of learning while the body is in the parasympathetic mode and allowing space for full integration of the concepts.

Each principle alone cannot get the job done of preparing adolescents with the skill and knowledge to become change agents and civic stewards necessary to progress our society. The interdependency of the five principles is paramount when implementing ALA. This does not have to be complex. Selecting any principle of ALA as an access point for a lesson or program interrupts the transactional cycle and creates a transformational experience. One needs systems and philosophies to interrupt and provide access points. ALA does that.

5. Self-Reflection Empowerment Inventory

I intentionally developed the Self-Reflection Empowerment Inventory (SREI) to measure 21st-century skill development and growth for adolescents who experience the ALA model. The SREI incorporates the principles of ALA and integrates skills not often quantified in traditional settings. Simon Sinek cleverly called these soft skills "human skills" (Brown, 2022) because they are necessary skills for engagement and development in social settings. While they can be difficult to measure in traditional grading rubrics, that does not decrease their value.

The tool qualitatively and quantitatively assesses seven skills that are taught using the five principles of ALA. They are:
- civic virtue,
- invention,
- collaboration
- self-development,
- self-direction,
- critical thinking,
- information literacy, and
- communication.

An inventory of the seven skills and related competencies, developed with study participants, is presented in Appendix A. These skills can be matched to the World Economic Forum's (Whiting, 2020) recommended skills for employees in 2025, showing that the SREI skills can also be identified as workforce-ready skills. This mapping is shown in **Figure 2**.

Educational and youth development programs need to ensure they provide space for youth to be explicitly taught these skills, followed by opportunities for the skills to be appropriately modeled and practiced in new and novel situations.

Figure 3 demonstrates the organic relationship between the skills identified in the SREI and the principles of ALA. Imagine the SREI skills rotating around the principles and therefore creating the fluid nature of a skill being taught in tandem with the five principles.

The largest leverage point of ALA's utility is the flexibility of programming and curriculum. It can be applied in various contexts, including traditional school settings, after-school activities, and homeschooling scenarios. Any type of practitioner who works with adolescents can be trained to use ALA principles to develop SREI skills.

The value behind this dynamic relationship is that our world needs leaders, indeed citizens, to perform at a leadership level to ensure progress, tolerance, and vitality. To the contrary, if adolescents are not prepared or do not feel served and heard by authority figures, they often rebel. An African Proverb captures this sentiment: "The child who the village does not embrace will burn it down to feel its warmth" (Sendrey, 2019). Whether a practitioner, policy maker, parent, or entrepreneur, a functioning society needs adolescents who are connected and prepared to navigate and manipulate the world they will inherit. The principles of ALA taught with SREI skills are accessible and can help.
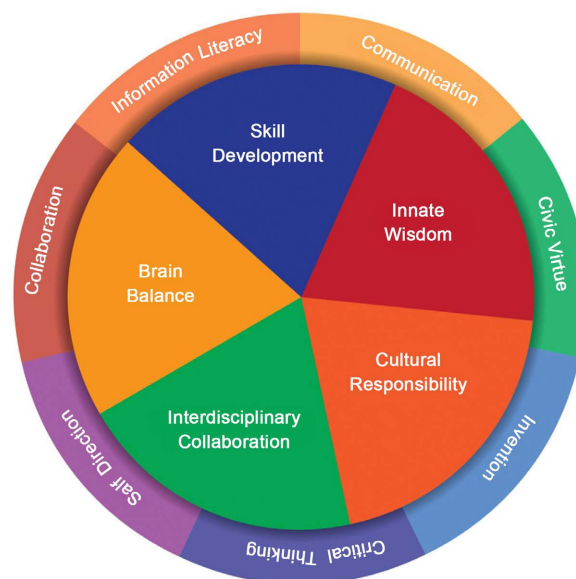

Figure 3. The organic relationship between SREI skills and ALA principles.

6. Study Methodology

The study objective was to determine if the intentionally integrated use of ALA principles in the design of the *Civics in Action* curriculum would increase 21st-century skills as defined by the World Economic Forum (WEF; Whiting, 2020). It was conducted with high school seniors at a public charter school in Denver, Colorado. One hundred two seniors were invited and 76 volunteered to participate in a study to determine the relationship between the *Civics in Action* course that was guided by the Action Leadership for Adolescents approach and growth in skills measured by the SREI. All seniors enrolled in the course received the same experiences and engaged in the same activities, however, not all of them took the SREI. The course itself can be explored by contacting the author for materials and syllabi used throughout the course.

A mixed-methods, action research methodology was used. A mixed methods design enabled the researcher to integrate qualitative findings (e.g., researcher observations, documentation and notes from in-class discussions or focus groups, and artifacts such as lessons and assignments) and quantitative survey results, conceptually and analytically, to come to a better understanding of research findings.

Mixed methods produce stronger evidence-based findings because they are situated in a real-world, practice-based setting and help the researcher understand not just if something works but how, why, and for whom (Leavy, 2023). Mixed methods help alleviate the natural bias that can occur when using just one type of data collection. The relative weaknesses and strengths of a singular approach can reduce the validity of a study and not acknowledge different ways of knowing (Leavy, 2023). Researchers and funders alike are also drawn to mixed methods because of the greater utility and authenticity of the findings (Kimmons, 2023). The research questions were best answered by using quantitative analyses to determine the growth in the skill development of subjects and qualitative analysis to understand the meaning and impact of the ALA approach for participants.

Action research, cyclical in nature, is an organic and emergent process that supports the evolution of understanding how ALA evolved and is used in educational settings to improve the learning outcomes of adolescents (Bradbury, 2015). Action research includes a variety of evaluation, investigation and analytical research methods developed to better understand and diagnose problem areas in an organization or situation. Action research also provides the space to simply understand a theory or practice at a deeper level through iterative processes.

6.1. Research Questions

1) Where did students demonstrate the most significant gains as measured by the SREI?

2) What experiences, as noted in the narrative portion of the SREI, have a di-

rect relationship with exercises/activities or lessons as documented in the *Civics in Action* curriculum?

3) As measured by the SREI, what is the significance of using ALA to improve 21st-century skills for adolescents?

4) What pivotal experiences during the length of the research project supported the efficacy of ALA?

5) Which of the 5 principles of ALA do these experiences tie to?

6.2. Survey Development

The SREI inventory (Appendix A) assessed the strength of SREI skills pre and post the *Civics in Action* course. It consisted of 14 items with a 1 - 10 numeric scale assigned to seven of the 14 questions. The survey also required respondents to provide qualitative responses through anecdotal evidence that explained their numeric answer. The surveys were administered using Qualtrics survey software eight months apart during one school year.

6.3. Demographics

Polaris Reporting, a database service used by the school district to record and monitor school-based data like attendance, student demographics, and matriculation, reported that the average daily attendance rate of research participants was 87.2%. According to the 2022 student profile, 33% of the students earned a grade point average of 4.0 - 4.5. Additionally, 67% of students qualified for free and reduced lunch, 23% were multi-language learners, and 55% were first-generation students. Figure 4 below, provides the demographic breakdown of the participants (DSST Public Schools Student Profile, 2022, personal communication). Please notice that Hispanic or Latino made up the largest percentage of students in the Class of 2022 at 32.4% followed by Black or African American students at 28.1% then Whites at 23%. Students who identified as two or more races made up 10.1%.
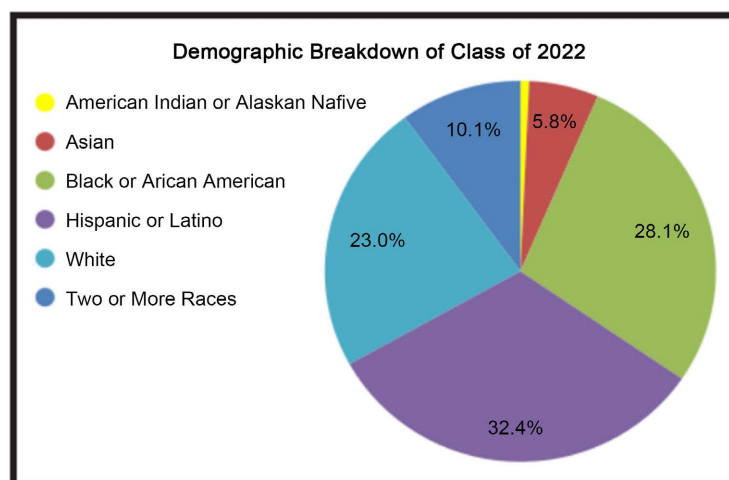

Figure 4. Demographic breakdown of class of 2022.

7. Results

The results are demonstrated in figures, analysis of recorded data and a table representing qualitative findings from recorded data. The results demonstrate the value of using transformational leadership coupled with growth mindset to achieve 21st skill development in adolescents for this cohort of participants.

7.1. SREI Survey Results

Figure 5, represents the entire data picture of the SREI survey results. All seven skills measured with the SREI are listed along the horizontal axis. The vertical axis represents both the number of students selecting, indicated by the red line, and the participants' mode score, indicated by the blue line. The change in self-ratings between the pre and post surveys is shown. It is important to note that I have selected the mode statistic to be the statistic of record because it was the data point that occurred most frequently and, I believe, is a truer representation of the quantitative story. For instance, the mode score for the skill of critical thinking in both the pre and post survey was 8 out of 10. But the number of responses of 8 during the post survey nearly doubled: 26% of respondents gave themselves an 8 for the pre survey and 48% gave themselves an 8 for the post survey. Another significant area for skill growth was communication. The mode score during the pre-survey for communication was 7 out of 10, from 18% of respondents. In the post survey, 32% selected 10.

7.2. Research Question #1

Where did students demonstrate the most significant gains as measured by the SREI?

The highest growth area was the skill of communication. The mode score for the pre survey was 7 (18% of respondents) out of 10 and, for the post survey, it was a 10 out of 10, with 32% of the respondents selecting 10 in the post survey. Two other notable data points included the skill of invention and critical thinking. While the post-survey mode score for invention only increased by 2 points (from 6 to 8), the number of respondents selecting 8 was 38%, up from 6%. Similarly, in the skill of critical thinking, the mode remained the same, at a score of 8, but the number of responses for the post survey increased from 26% to 48% of respondents selecting a score of 8.

7.3. Research Question #2

What experiences, as noted in the narrative portion of the SREI, have a direct relationship with activities or lessons documented in the Civics in Action curriculum?

Table 1 describes the skills measured on the SREI. The second column in Table 1 represents words that occurred in the narrative portion of the post SREI. The third column represents instructional practices used in the *Civics in Action* course.
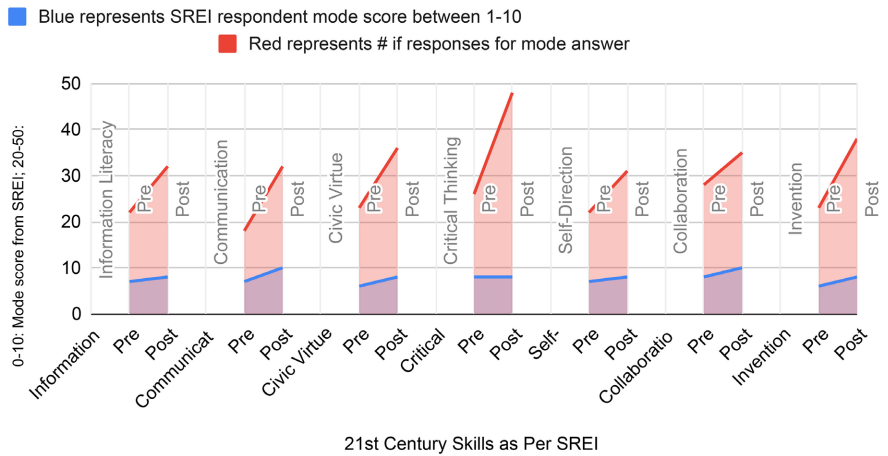
Figure 5. Self-reflection evaluation inventory pre and post data growth.

Table 1. Skills measured on the SREI as supported by the civics in action course.

Skill	Common words or practices participants noted that improved said skill	*Civics in Action* Activities
Communication	Meetings, interview, emails, ask, people, group, partner, teacher, mentor	-Community expert interviews -Mentor requirement -5 documented meetings with mentor -Simulations -Role Plays -Essential research question
Civic Virtue	Involve, allow, impact, public, community, connected, understanding, giving, help, provided, opportunity	-70+ hours of work involved in project -Optional social justice component -Field trips, site visits -Guest speakers -Purpose projects -Essential research question
Critical Thinking	Collecting, focus, patterns, recognize, considered, reason, detail, organize, evidence, solve/solutions, elaborate, outcomes, adapt, decisions, execute, logic	-Pamphlet -Project proposal -Timeline with deliverables -Final presentation -Debates
Information Literacy	Citations/sources, analyze, find, organize, synthesize, apply, perspective, bias, read, reason, interpret, explore, research	-Project proposal -Interviews -Research library lesson -Timeline with deliverables
Self-Direction	Goals, rely, initiative, motivate, proud, curious, resilient, responsible, diligent, consistent, timely, pre-planning, strong, capable, accountable, inspiration	-Select deliverable due dates -Tuning protocol presentation -Windows in research presentation -Senior project
Collaboration	Work, many, team, communication, delegate, partner, teacher, voice, listen, branching out	-Project update presentations -Select deliverable submission -Purpose project feedback session -Tuning protocol
Invention	Create, repair, rebuild, connections, design, innovate, find, ideas, making, improve, test/trial, shift	-Project proposal -Project iterations -3D portrayal of project

7.4. Research Question #3

As measured by the SREI, what is the significance of using ALA to improve 21st-century skills for adolescents?

The greatest area of growth when the SREI was used as the measurement tool was communication. The mode score for communication increased by 3 points, moving from 7 to 10, and 13 more respondents selected 10 during the post survey. The number of respondents that gave themself the mode score went up by 14%. Another area of growth was information literacy. The mode score increased by one point (from 7 to 8) and the number of respondents who gave themself the mode score increased by 10% from the pre to the post survey. Nine more respondents gave themself the highest score of 10 on the post-survey. The final area of growth that had great significance was invention. The mode score increased by 2 points, with an additional 12 respondents giving themselves the mode score (8 out of 10). This significant growth indicates the efficacy of ALA.

7.5. Research Question #4

What pivotal experiences during the length of the research project supported the efficacy of ALA?

In the development of the *Civics in Action* course, where this research project took place, I curated meaningful assignments and activities that matched practice with ALA principles. These experiences included student interviews of professionals in the field who could become their mentors. Students then requested meetings with personally chosen mentors. The respondents used their innate wisdom, coupled with cultural responsibility, in negotiating discussion topics, and length of meetings. The required meeting minutes included notes, action steps, and follow-up tasks, further developing their skill of task initiation. All activities were open to all students enrolled in the course, not specifically assigned to students who agreed to be in the study.

Pivotal experiences participants noted was practicing communication skills during the initial "tuning protocols," where design thinking principles were integrated with presentations of projects. Classmates were given the opportunity to ask questions, give feedback, and discuss the presented project so that the presenter could consider different iterations of the project. Respondents indicated that developing an overarching research question with the support of a research librarian and a site visit to a local library also supported their development of literacy and inventive skills. Culminating requirements of the course that supported the development of information literacy and communication under the principle of interdisciplinary collaboration included a timeline, a list of tangible deliverables, and research. Another was a research presentation, their first formal presentation of their project idea, with supporting research to justify the project. The final requirement was a project pamphlet that provided information about the project, culminating research, and the final presentation.

At the start of the course, I developed a series of vague themes I thought were

relevant to the students in the class (e.g., school spirit, climate protection, facilities, etc.). From these themes, students were randomly divided into small groups and given the task of creating a four-to-six-week project that addressed this theme for the better. From this start, a wide variety of initiatives were started: Student Council and Student Body, Greenhouse, Pull Up Competition, and Student Clubs Activities Fair. Other activities facilitated throughout the course were role-plays of city and national leaders, debates, and simulations. Finally, the participants literally got their hands in the clay when asked to shape Play-Doh into something that represented their guiding project.

7.6. Research Question #5

Which of the 5 *principles of ALA do these experiences tie to*?

While the argument can be made to connect these experiences to one principle of ALA, the value of self-reflection and growth is in the recognition that, through analysis and justification, each of the experiences could be tied to any one of the principles The importance of this lies in the fact that all five principles are critical as access points to creating a pathway to the other four principles. This ensures the balance of each of the principles, and that balance is critical for the transformational development of adolescents.

It is through self-realization and awareness, supported by activities aligned with cultural responsibility while providing space for innate wisdom, that our society can move forward in a progressive and sustainable way. Interdisciplinary collaboration weaves through the experiences because an adolescent brain is making new connections and exploring the possibility of future studies and careers. Aside from self-study, requiring interdisciplinary collaboration affords the opportunity for multiple voices to be represented at the table. This allows for more ideas to be discussed about the complex problems of our time. Finally, the principle of brain balance is a centering principle for ALA because an adolescent leader needs to integrate experiences, or the likelihood of becoming an effective leader and change agent may decrease. Moreover, when experiences—good or bad—are not integrated, it could stunt the development of the adolescent because it impedes the learning process of that experience. ALA, with the explicit SREI as a measurement for skill development, is consistent with other youth development models meant to look at adolescents through an asset-based lens.

8. Future Research

This is the first scientific study that demonstrates the efficacy of ALA. As such, future research projects will increase the sample size, and include a control group that maintains current praxis of existing educational leadership approaches with adolescents. While the sample size for this first study was diverse in socio-economic backgrounds, a future study may expand the geographical reach of participants. Finally, future research will continue to consider the performance of adolescents through a learning process in a socio-cognitive context.

9. Conclusion

This study, which applied ALA principles with SREI skills in a traditional classroom, supports the efficacy of ALA. While limitations in the study can make a case for future studies, the explicit instruction of the skills measured in the SREI, principles of ALA, and space to do reflection empowered participants. The selection process of participants was one limiting factor since participants were selected from my courses. Another limitation was that the skills measured to show growth are in fact skills that can be practiced and mastered outside of the course. These limitations will help guide future studies so the participants can have an even greater representation of adolescents and space for participants to reflect and identify other places they practice skills measured on the SREI.

I plan to continue studies of skill development activities and projects within a traditional classroom and other learning environments to examine and curate more specific activities that provide examples of ALA at work. I also wish to work more closely with pediatric neuroscientists and improvement scientists to take into consideration the impact screens and world events have on brain development, so education can capitalize on innate characteristics of curiosity and learning and stave off the addiction to adrenaline and quick rushes. A third direction to pursue is to collaborate with teacher education programs to train a cohort of teachers in ALA.

In the multi-pronged approach ALA uses, being and doing are interdependent and result in experiences that allow transformation through integration and fragmentation prevention. Identification of the transformative moments, skills, feelings, and experiences that invite generative experiences will help further identify spaces to create healthy integration or to come away from spaces that do not.

As such, when using the ALA model in a traditional classroom setting or for out-of-school time instruction, one could hypothesize that adolescents will show fewer problem behaviors and possess more stabilizing strengths as protective factors. Furthermore, youth coming from marginalized circumstances (e.g., social-emotional dysregulation, poverty, health inequities, learning differences, etc.) would greatly benefit from developing higher levels of social-emotional learning through ALA-informed instruction.

Declarations

This study, questionnaire and methodology for this study was approved by the Institutional Review Board of Fielding Graduate University on 9/7/2021.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

Anthony, E. J. (1969). The Reactions of Adults to Adolescents and Their Behavior. *Ado-*

lescence: Psychosocial Perspectives (p. 54)*,* Basic Books.

Bass, B. M. (1985). *Leadership and Performance beyond Expectations.* Free Press.

Bass, B. M. (1990). From Transactional to Transformational Leadership: Learning to Share the Vision. *Organizational Dynamics, 18,* 19-31.
https://doi.org/10.1016/0090-2616(90)90061-S

Bass, B., & Riggio, R. (2005). *Transformational Leadership* (2nd ed.). Psychology Press.
https://doi.org/10.4324/9781410617095

Benson, P. (1997). *All Kids Are Our Kids: What Communities Must Do to Raise Caring and Responsible Children and Responsible Adolescents.* Jossey Bass.

Benson, P., Scales, P., Hamilton, S., & Sesman, A. (2006). Positive Youth Development: Theory, Research and Applications. In R. M. Lerner (Ed.), *Handbook of Clinical Psychology: Theoretical Models of Human Development* (pp. 894-941). Wiley.
https://doi.org/10.1002/9780470147658.chpsy0116

Bradbury, H. (2015). *The SAGE Handbook of Action Research.* SAGE Publications Ltd.
https://doi.org/10.4135/9781473921290

Brown, B. (2022). *Brené with Adam Grant and Simon Sinek on What's Happening at Work, Part 1 of 2.*
https://brenebrown.com/podcast/whats-happening-at-work-part-1-of-2/

Casey, B., Getz, S., & Galvan, A. (2008) The Adolescent Brain. *Developmental Review, 28,* 62-77. https://doi.org/10.1016/j.dr.2007.08.003

Catalano, G. D., & Catalano, K. (1999). Transformation: From Teacher-Centered to Student-Centered Engineering Education. *Journal of Engineering Education, 88,* 59-64.
https://doi.org/10.1002/j.2168-9830.1999.tb00412.x

Cavataio, R., & White, M. (2011). *The Trophy Generation.* Tate Publishing.

Csikszentmihalyi, M. (1975). *Beyond Boredom: Finding Flow in Work and Play.* Jossey Bass Publishers.

Csikszentmihalyi, M. (1998). *Finding Flow: The Psychology of Engagement with Everyday Life.* Basic Books.

Damon, W. (1997). *The Youth Charter: How Communities Can Work Together to Raise Standards for All Our Children.* Free Press.

Damon, W. (2004). What Is Positive Youth Development? *Annals of the American Academy of Political and Social Science, 591,* 13-24.
https://doi.org/10.1177/0002716203260092

Dewey, J. (1922) *Human Nature and Conduct: An Introduction to social Psychology.* The Modern Library. https://doi.org/10.1037/14663-000

Dweck (2007). *Mindset: The New Psychology of Success.* Ballantine Books.

Edberg, M. C. (2008). *Development of UNICEF Latin America/Caribbean Adolescent Well-Being Indicators: Background and Proposed Indicators.* Report for UNICEF-LAC region, Panama City, Panama.
https://hsrc.himmelfarb.gwu.edu/sphhs_prev_facpubs/235

Fletcher, J., Lyon, G. R., Fuchs, L., & Barnes, M. A. (2019). *Learning Disabilities: From Identification to Intervention.* The Guilford Press.

Freire, P. (2000). *Pedagogy of the Oppressed.* Continuum.

Freud, A. (1969). Adolescence as a Development Disturbance. *Adolescence: Psychosocial Perspectives* (p. 75), Basic Books.

Funderburke, L. (2017). *Sociopsychonomics.* F.I.F.E. Publishing.

Gorski, P. C. (2011). Unlearning Deficit Ideology and the Scornful Gaze: Thoughts on Authenticating the Class Discourse in Education. *Counterpoints, 402,* 152-173. http://www.jstor.org/stable/42981081

Hall, G. S. (1904). *Adolescence: Its Psychology and Its Relations to Physiology, antHropology, Sociology, Sex, Crime, Religion and Education, Vol. 1.* Adamant Media Corporation. https://doi.org/10.1037/14684-000

Hamdorf, L. (2021). Activating the Next Generation of Leaders: Action Leadership for Adolescents Approach. In M. Aydogmus (Ed.), *New Trends and Promising Directions in Modern Education* (pp. 142-161). Palet Yayinlari.

Heinbach, C., Fiedler, P., Mitola, B., & Pattni, E. (2019). *Dismantling Deficit Thinking: A Strengths-Based Inquiry into the Experiences of Transfer Students in and Out of Academic Libraries.* In the Library with the Lead Pipe Publishing. https://www.inthelibrarywiththeleadpipe.org/2019/dismantling-deficit-thinking/

Houldin, A. D., Naylor, M. D., & Haller, D. G. (2004). Physician-nurse collaboration in research in the 21st century. *Journal of Clinical Oncology, 22,* 774-776. https://doi.org/10.1200/JCO.2004.08.188

Institute of Medicine (US) and National Research Council (US) Committee on the Science of Adolescence (2011). *The Science of Adolescent Risk-Taking: Workshop Report.* National Academies Press. https://www.ncbi.nlm.nih.gov/books/NBK53412/

Kimmerer, K. W. (2015). *Braiding Sweetgrass.* Milkweed Publishing.

Kimmons, R. (2023). *Education Research: Across Multiple Paradigms.* Brigham Young University Free Press.

Kosfeld, M., Heinrichs, M., Zak, P. J., Fischbacher, U., & Fehr, E. (2005). Oxytocin Increases Trust in Humans. *Nature, 435,* 673-676. https://doi.org/10.1038/nature03701

Lather, P. (1991). *Getting Smart: Feminist Research and Pedagogy within/in the Postmodern (Critical Social Thought).* Routledge.

Leavy, P. (2023). *Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches.* Guilford Publications.

Lengrand, P. (1989). Lifelong Education: Growth of the Concept. In C. J. Titmus (Ed.), *Lifelong Education for Adults: An International Handbook* (pp. 5-9). Pergamon. https://doi.org/10.1016/B978-0-08-030851-7.50008-4

Lerner, R. (2009). The Positive Youth Development Perspective: Theoretical and Empirical Bases of a Strengths-Based Approach to Adolescent Development. In S. J. Lopez, & C. R. Snyder (Eds.), *Oxford Handbook of Positive Psychology* (2nd ed., p. 149). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195187243.013.0014

Lerner, R. M., Lerner, J. V., & Benson, J. B. (2011). Positive Youth Development: Research and Applications for Promoting Thriving in Adolescence. *Advances in Child Development and Behavior, 41,* 1-17. https://doi.org/10.1016/B978-0-12-386492-5.00001-4

Lerner, R. M., Lerner, J. V., Almerigi, J. B., Theokas, C., Phelps, E., Gestsdottir, S., Naudeau, S., Jelicic, H., Alberts, A., Ma, L., Smith, L. M., Bobek, D. L., Richman-Raphael, D., Simpson, I., Christiansen, E. D., & von Eye, A. (2005). Positive Youth Development, Participation in Community Youth Development Programs, and Community Contributions of Fifth-Grade Adolescents: Findings from the First Wave of the 4-H Study of Positive Youth Development. *The Journal of Early Adolescence, 25,* 17-71. https://doi.org/10.1177/0272431604272461

Orton Gillingham Academy (2023). *Orton Gillingham Academy Principles of the Orton Gillingham Approach.*

https://www.ortonacademy.org/resources/og-approach-principles-2/

Peet, M. (2017). *Generative Knowledge: Uncovering Hidden Strengths [Video].* Ted Conferences. https://www.youtube.com/watch?v=fTsdC853f08

Pittman, K. J., & Fleming, W.P. (1991). *A New Vision: Promoting Youth Development. Testimony of Karen J. Pittman before the House Select Committee on Children, Youth and Families.* Center for Youth Development and Policy Research.

Roth, J., & Brooks-Gunn, J. (2015). Evaluating Youth Development Programs: Progress and Promise. *Applied Developmental Science, 20,* 188-202. https://doi.org/10.1080/10888691.2015.1113879

Salvan, L. (2013). Cultural Responsibility. Small Steps to Restore Anthropology in Economic Behaviour. Interviews and Best Practices. *Tafter Journal.*

Sampson, R. J. (2004). Neighborhood and Community: Collective Efficacy and Community Safety. *New Economy, 11,* 106-113. https://doi.org/10.1111/j.1468-0041.2004.00346.x

Search Institute (2005). *The 40 Developmental Assets.* https://www.search-institute.org/our-research/development-assets/developmental-assets-framework/

Sendrey, E. (2019). *The Child Who Is Not Embraced by the Village Will Burn It Down to Feel Its Warmth—African Proverb.* https://www.eileensendrey.com/blog/2019/8/6/the-child-who-is-not-embraced-by-the-village-will-burn-it-down-to-feel-its-warmth

Steinberg L. (2008). A Social Neuroscience Perspective on Adolescent Risk-Taking. *Developmental Review, 28,* 78-106. https://doi.org/10.1016/j.dr.2007.08.002

Steinberg, L. D. (2014). *Age of Opportunity: Lessons from the New Science of Adolescence.* Eamon Dolan/Houghton Mifflin Harcourt.

Whiting, K. (2020). *These Are the Top 10 Job Skills of Tomorrow—And How Long It Takes to Learn Them.* The World Economic Forum. https://www.weforum.org/agenda/2020/10/top-10-work-skills-of-tomorrow-how-long-it-takes-to-learn-them/

Zhao, Y. (2016). From Deficiency to Strength: Shifting the Mindset about Education Inequality. *Journal of Social Issues, 72,* 720-739. https://doi.org/10.1111/josi.12191

Zimmerman, S., Phelps, E., & Lerner, R. (2008) Positive and Negative Developmental Trajectories in U.S. Adolescents: Where the Positive Youth Development Perspective Meets the Deficit Model. *Research in Human Development, 5,* 153-165. https://doi.org/10.1080/15427600802274001

Appendix A

SREI Skills Inventory

Information Literacy	Collaboration	Invention	Critical Thinking	Self-Direction	Civic Virtue	Communication
Being able to articulate a specific topic but also being able to apply it to other parts	Working with others to make project better or to help another project become better	Creation of something through creative thinking	Logically using information so that info was absorbed most effectively	Being able to self-guide through problems and make decisions	Doing something to help the community improve	Talking to others to get things done and avoiding problems—going in with a positive mindset
Researching the benefits of why I want to do my project and why it could help society.	Asking admin, classmates, community members for support and guidance and books to donate for the library	Doing it and then changing it to make it better	Observing the community to see the behaviors about how people do things and where one might penetrate change	Going from just talking about the idea to making it happen	Using what was learned about community inside of the school outside of the school	Using all different vehicles to communicate-example/model it, write it, talk about it, change it
Tools and mental habits to organize and interpret resources; communicate thoughts using sound reasoning; know how to navigate/sort resources	Give and take of ideas, presently taking in others output with full consideration and analyzing, boosting each other for mutual benefit; ways we've needed to collaborate such as getting word out about projects, advertising, and reference to experts to ensure information was valid	Invented and adapted clubs, councils, activities etc. depending on our available resources and time	Grounded in recognizing patterns and relationships across time and space	Making sure you or people involved in activity are keeping up with timeline, self- motivation, keeping your own self accountable and knowing what to do and doing what you could do	Responsibility to the community, being involved in the school community, creating more awareness about issues peers are struggling with	Expression and exchange of your thoughts and ideas verbally; took great advantage of social media and networking
Equips students with tools and mental habits to organize and interpret multiple resources; being able to find reliable sources	Working with other people with a shared goal	Making things and then testing them	Thinking critically	Being able to guide yourself and monitor progress	Participating in a positive way in your society/ community	Expressing your thoughts
Organize and interpret a multitude of resources	Being able to work with people	New ideas	Thinking under pressure	Production disposition	Improving and connecting to the community for a better result	Permission

Continued

Research and citations	Mentors/help from others	Design thinking and practice	Turning something negative into positive	Meeting deadlines	Moralizing about your position in the community and that connection to that community	Advice, feedback, introductions
Problem and solution	Taking feedback and giving advice	Brainstorming ideas	Finding something to work for your project	Problem solving	It gave people who don't know something how to do it	Sharing out thoughts that came in mind to communicate
Provide citation that shows where the evidence is from	Working with others to gain knowledge and ideas	Reflecting on mistakes	Beneficial thought process	Provide enough time to complete work	Involved in community	Expression and exchange of thoughts
Knowing your information	Working with other people and communicating effectively	Improving methods	Thinking outside the box, creating, goals, problem solving	Checking yourself	Impacting or providing options for community members	Exchanging ideas with social media manager
Use learning tools for research from three or more sources	Working with others to gain knowledge and ideas	Making test/trials to see what works	Using logic and problem solving skills to one's advantage	Thinking ahead	Provide opportunities for students to meet outside the classroom	Talking with other people about project ideas
Analyze information	Working with others, communicating with them for directions or getting answers to questions	Making things happen	Using logic and thoughts to elaborate on descriptive and detailed conclusions (ex: judges decision in the new judge simulation)	Scheduling interviews and begin making drafts of images/sketches	Helps communities and people with responsibility	Expression, exchange of thoughts verbally
Being able to take away important evidence	Working with others to improve and gain ideas of a concept	Setting expectations	Recognizing patterns and relationships and using logic	Being able to be independent and having that self-accountability	Example: help the climate and people to create an environment that is helpful to others	Having a voice and using it
Ability to use sources on the internet and understand them	Meeting as a team; listening to others opinions	Make and test theories	Considerate thought through logic and problem solving	Curious and productive	Being able to serve a community that i've been connected to through service	Running ads

Continued

Using evidence to establish a claim and gain credibility with your opinions (understand and defend with evidence in projects)	Being open to different ideas and others opinions and coming to consensus	Search for patterns	Using statistics and data	Holding self accountable to dates and deadlines	Help early elementary students develop their fundamental skills for reading	Creating posters
Finding reliable research and information relating to your project	Working with another person	Make ideas, strategies and solutions	Essential questions	Working toward your goals	Be able to make a more relaxed environment in the school	Sharing ideas and plans clearly and effectively while taking all things into account
Being able to interpret information and relay it accurately	Adjusting to other people's schedules and resources	Coming up with new ideas and finding a way to find the best path	Problem solving to achieve a goal	Choosing your own path and making your own decisions to get where you want	Morality or a standard of righteous behavior in a relationship to a citizen's involvement in society	Flyers and next door app and instagram posts
Including information in a clear and concise manner	Dividing leadership and organizational roles	A creative and unique idea that demonstrates the passions one has		Ability to completed project and demonstrate research findings	Demonstration through leading community members through music	Emails and word of mouth, meetings
Condensing and using research	Collaborating for facilities modification form	Make and test theories, search for patterns and themes		Being able to guide yourself through you project and goals	Projects that help community members be aware and connect and heal in similar ways	Verbally speaking with others (meetings, emails, casual conversations)
Use the library and internet to find things you need	Getting materials and help with building	Make and test connections, objects, ideas, strategies (example: the senior project product)		Directing and taking initiative of yourself and goals	Having moral and responsible intentions	When playing music with others, had to learn to communicate quietly or non verbally
	Working effectively with another person in order to be productive	Making and testing theories and connecting good ideas and strategies (example: MSA)		Example: creating and adapting your senior project	Trying to help volleyball players learn from what i've learned	Had to learn to communicate empathetically with survivors in order to not make them uncomfortable or obligated to participate

Continued

Working with others to achieve a goal	The creativity and originality of one's project	Keeping up with goals	Trying to better the community, getting animals off the streets and into loving homes	Talking to people who can benefit you
	Design and make your project; then make course corrections	Guiding yourself on your plan	Trying to build up the basketball program for upcoming community members	Talking, emailing or advertising to make your project happen
		Keeping self-motivation	High standards of morality, improves your community	
		Being curious	Shows you are responsible for your community	
		Lead yourself away from distraction	Connecting with the community	
		Keep control of yourself and give yourself direction	Representing and giving back to the community	
		Being motivated to do things on your own	A student's project to correct the community	