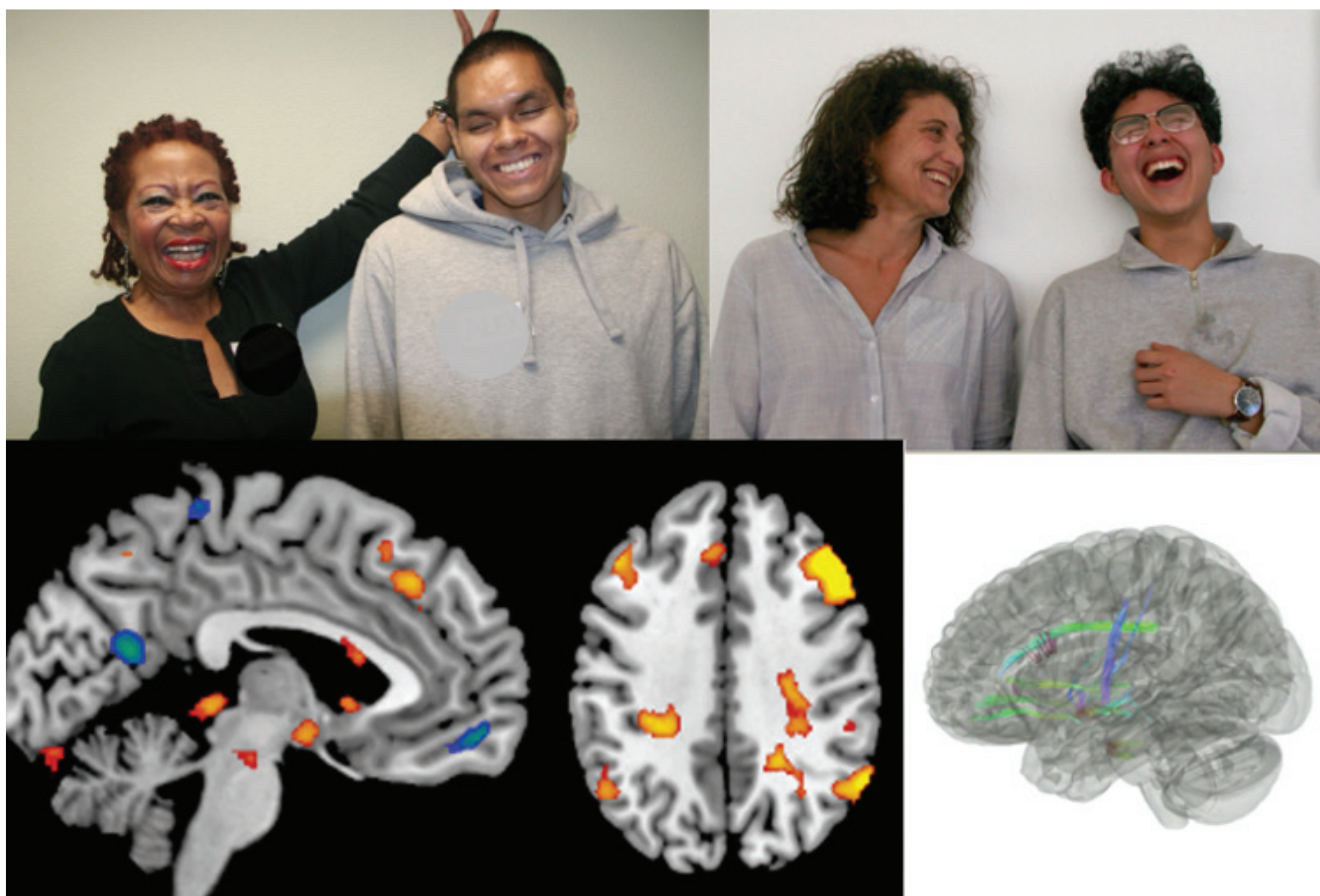


IGNITING A COPERNICAN SHIFT – A Strategic Plan to Reimagine Adolescent Education, 2025-2030



USC CANDLE

Center for Affective Neuroscience,
Development, Learning and Education

EXECUTIVE SUMMARY

The USC Center for Affective Neuroscience, Development, Learning, and Education (CANDLE) is dedicated to transforming adolescent education through the power of developmental science and human-centered approaches. At a time when educational systems are increasingly disconnected from the developmental needs of young people, CANDLE aims to initiate a “Copernican shift” in how we understand and support learning. By integrating insights from neuroscience, education, and cultural studies, CANDLE aspires to make education a context for holistic growth—empowering students to think critically, engage emotionally, and contribute meaningfully to society. This vision includes a commitment to honoring the full diversity of learners – including neurodiverse students whose distinctive ways of thinking, connecting, and creating reflect core dimensions of human development that CANDLE’s science seeks to understand and support.

Vision: *Igniting human potential through transformative education fueled by science.*

Mission: CANDLE is committed to reshaping adolescent education to prioritize human development, emphasizing emotional, social, and cognitive growth. Our goal is to leverage neuroscience and developmental science to foster educational environments where students and educators thrive, fundamentally rethinking traditional metrics of success.

Core Areas of Focus:

1. **Research:** CANDLE advances transdisciplinary research in adolescent development, producing cutting-edge studies that inform educational practices and policies. Our research clusters, longitudinal studies, and collaborative projects seek to uncover the intricate processes through which students and teachers build meaning and resilience.
2. **Practice:** Through the CANDLE Innovation Lab and Collaborative Learning and Action-Based Spaces (COLABs), we work to facilitate the translation of the research into actionable classroom strategies that can improve student learning. Our practice initiatives will empower educators to apply science-informed methods that foster engagement, transcendent thinking, and adaptive learning.
3. **Policy and Public Engagement:** Recognizing the need for systemic change, CANDLE engages with policymakers, thought leaders, and the public to advocate for policies that support development-centered education. Our public engagement efforts seek to reshape societal perceptions of adolescent education, driving a shift toward more holistic and sustainable learning systems.

Strategic Goals and Outcomes: CANDLE’s strategic plan outlines ambitious yet achievable goals for the next five years, focusing on measurable outcomes across our three core areas. Our objectives include:

- Advancing groundbreaking research that influences academic and policy discussions on adolescent learning.
- Reimagining middle and high school and transforming educational practice based on developmental science.
- Engaging stakeholders at every level to drive policy changes that support equitable, developmentally aligned educational practices.

Impact and Reach: Since its inception, CANDLE has engaged close to 250,000, researchers, and policymakers globally. Our programs have influenced educational practices that benefit millions of students, especially those from marginalized communities. Through partnerships, dissemination, and public engagement, we aim to expand our reach to 5 million individuals by 2030.

Our strategic plan sets a roadmap for sustainable growth, meaningful partnerships, and transformative change in education. Our commitment is to cultivate environments where both students and educators can flourish, setting the stage for a new era in adolescent education.

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SECTION 1: OVERVIEW

Part I - INTRODUCTION

In our era of immense global challenges, our unsustainable ways of living and educating are increasingly evident. Our educational systems often harm mental health, hinder relationships, reinforce inequities, and ignore community needs. Our standard educational systems and structures leave young people unprepared to inherit custodianship of civil society and the planet—including many of those young people whom we consider to be “high performing” in the current system—because these systems and structures are generally not designed to prepare students and teachers to operate or meaningfully innovate within the modern civic, cultural, or technological domains. Scholars, parents, teachers and politicians have long identified the need for a major paradigm shift in how we educate adolescents.

These systematic constraints are particularly detrimental for neurodiverse learners, whose developmental profiles often fall outside conventional expectations but whose strengths, creativity, and problem-solving capacities flourish in environments attuned to variability in human cognition and emotion.

Additionally, the rapid emergence of artificial intelligence and large language models is reshaping how young people interact with information, express themselves, and form social connections. These tools raise complex developmental and ethical questions about privacy, agency, identity formation, and equitable access that are especially urgent in adolescence.

Existing beliefs, rooted in outdated cultural perspectives, limit our understanding of learning and its complexity. Learning isn't a linear narrative but a dynamic, multidimensional process, influenced by various factors, including the changing societal and technological landscape. Yet, our education systems insist on one-size-fits-all approaches, further exacerbating inequalities. Learning is a holistic, interpersonal process driven by emotions, culture, and context. Too few schools align with these principles. But to build a sustainable and just future, education policies must also embrace these insights, fundamentally reshaping educational systems and teaching practices.

This shift is comparable to Copernicus realizing that planets revolve around the sun, transforming our understanding of the universe. Similarly, we must redefine the roles of schools and education systems. Learning outcomes should no longer be the central focus; instead, we must prioritize individuals' subjective experiences, promoting growth through agentic learning in supportive contexts.

At CANDLE, we recognize that the system of education for adolescents is set up to succeed at the wrong things and as a result is failing its teachers and students. And our research shows us that there is a way through to a better way of educating youth so that they flourish:

- Adolescent education should be reframed around adolescent, human development.
- Adolescent education should be appreciated as a social, emotional, cognitive and cultural endeavor that is always context dependent.
- Adolescent education should be structured to explicitly develop the capacity for transcendent thinking.

Our activities, whether in research or practice or policy, are organized to further our understanding of what this means in terms of contributing to improving our system of education and demonstrating the benefits for young people and society as a whole.

The CANDLE team is committed to the following central principles in our work:

- ***Necessity of Transdisciplinarity*** – Human development is complex, cultural, and dynamic. Our understanding of human development must therefore be comprised of and informed by work in many disciplines. Because education attempts to shape and support human development, it is essential that our work integrates across disciplines and transcends silos.
- ***Commitment to Innovation*** – Innovation is necessary to address the very real challenges facing education, and that starts with thinking innovatively about research. Our research team will lead the field in its cultivation of innovative methods, its transdisciplinary appeal, and its collaborative ethos. At CANDLE, researchers, scholars, educators and other stakeholders become co-creators of knowledge.
- ***Importance of Removing the Research/Practitioner Divide in Education*** – Our research team recognizes that too often research in teaching and learning happens to and about educators and students instead of with them. Not only will findings from this research be translated powerfully into evidence-based, action-oriented recommendations and interventions, which will be disseminated rapidly and broadly, but they will be co-created with educators. This co-creation with practitioners facilitates our researchers to foster new and applied research to address and solve practical real-world problems in education in the here and now.
- ***Commitment to Neurodiversity and Inclusive Development*** – CANDLE recognizes neurodiversity as a fundamental expression of human variation. Our science and practice seek to illuminate and support the developmental, emotional, and cognitive pathways through which all students, including those who identify as neurodiverse, and educators thrive. This commitment guides our research designs, educator partnerships, and policy engagement.
- ***Responsibility in Emerging Technologies*** – As AI and LLMs become embedded in adolescents’ civic and educational lives, responsible engagement requires careful attention to developmental science and ethics. CANDLE will explore how these tools shape youths’ thinking and relationships while foregrounding issues of privacy, equity, agency, and emotional wellbeing.
- ***Value of Collaboration*** – In order to be successful and sustainable, we believe that collaborating with strategic partners rather than going it alone is key to success, particularly with respect to practice and policy. The field is full of extraordinary education leaders who are doing amazing work in setting the standard for professional learning and influencing policy. We do not intend to compete with them, rather, we will work with them to integrate what we are learning in our lab into their practice and programming.

These principles frame the work across research, practice, policy and public engagement.

Part II - VISION

Igniting human potential through transformative education fueled by science.

Part III - MISSION

Our current system of education and approach to learning is constructed in such a way that it stifles human development. By harnessing the power of affective neuroscience in service of the practice of education, CANDLE will build and apply a transdisciplinary science of adolescent engagement and human development that centers on the processes and opportunities by which students and teachers grow – and help them flourish.

Investigators, practitioners and change agents will **learn** about, engage with and co-create the science, lead the way in **integrating** it effectively into education, and so become agents in **systems change** based in new understandings rather than simply in efforts to scale practices.

This will facilitate a new way of imagining learning in which students and educators can flourish, leading to a transformation of education, ultimately addressing the pervasive disengagement, fragile and non-transferable learning, huge inequities in achievement, dropout rates and unprecedented levels of anxiety, depression and suicidality among young people.

By strategically creating the conditions conducive to novel insights, we *build new understanding* and break the stalemate of the status quo. We set the stage for grassroots, evidence-based and durable change.

In order for this to occur, we need to contribute to changing the way that adolescent education is fundamentally understood, changing mindsets of parents and politicians, educators and students alike. This vision and mission embraces every learner, including those who are neurodiverse, ensuring that developmental science guides more inclusive and responsive educational systems.

Part IV - BOUNDARY PARTNERS/AUDIENCES

Boundary partners are those audiences or groups of individuals that CANDLE directly works with to change. Others, such as students, will benefit from the organization's work, but are not the direct focus of our activities. The following are the boundary partners for CANDLE:

- **Investigators** – Scholars, researchers, collaborators and partners.
- **Practitioners** – Educators (individuals and organizations), curriculum or content designers, professional development programs and trainers, schools of education and training administrators.
- **Change Agents** – Decision makers at all levels, policy makers, influencers, funders and philanthropists, parents, youth, and other sector gatekeepers.

Part V – CURRENT IMPACT

CANDLE's impact across the education research and practice sectors demonstrates our commitment to transforming education through transdisciplinary science, influencing not only teachers and students but also policymakers, administrators, and community leaders. Through continued partnerships and expansion, we aim to deepen and broaden this impact, driving systemic change that fosters holistic development and lifelong resilience among young people and their teachers.

The following outlines CANDLE Impact on Audiences and Beneficiaries (FY2019–FY2024):

- 1. Practitioners, Educators and Learners** - CANDLE's research and professional development programs have significantly influenced educators and learners, especially through partnerships with schools serving diverse and low-income communities. CANDLE's research-based workshops and development sessions equip teachers with science-informed strategies for enhancing student engagement, emotional development, and critical thinking.
 - **Programs Conducted:** 156 targeted professional development programs for educators, focusing on integrating insights from developmental neuroscience into classroom practice.
 - **Teacher Reach:** CANDLE has directly engaged over **175,000 teachers worldwide** through these sessions, potentially impacting the education and development of over **15 million students** globally.
 - **Notable Initiatives:** Annual institutes, including a virtual week-long summer program for educators, consistently oversubscribed, with a cap of 50 participants each year. These sessions empower educators to apply research insights in their own schools and communities, broadening CANDLE's reach internationally.
- 2. Researchers and Scholars** - CANDLE's influence on the scientific and academic community is evidenced by its substantial output in high-impact research, frequent citations, and invitations for keynote presentations. By advancing a transdisciplinary science of adolescent development, CANDLE has solidified its role as a thought leader in developmental neuroscience and educational practice.
 - **Publications and Research Engagements:** 34 peer-reviewed publications and 90 programs/events, advancing scholarship on topics like social-emotional learning and transcendent thinking in adolescent development.
 - **Citations and Recognition:** 7,090 citations, showcasing the widespread academic adoption and influence of CANDLE's research.
 - **Key Contributions:** The invitation for Dr. Mary Helen Immordino-Yang to author the opening chapter of the American Educational Research Association's (AERA) 2023 *Review of Research in Education*, signaling recognition as a key figure in educational reform. Additionally, Dr. Immordino-Yang's book, *Emotions, Learning, and the Brain*, was translated into five languages and became a bestseller in China in 2018.
- 3. Decision Makers and Administrators** CANDLE actively engages policymakers, district leaders, and educational administrators to advocate for policies informed by neuroscience and human development research. By informing standards and collaborating on policy briefs, CANDLE contributes to a policy landscape that supports comprehensive, development-centered education.
 - **Engagements with Administrators and Decision-Makers:** 165 engagements with school and district leaders, state-level administrators, and other decision-makers.
 - **Policy Influence:** CANDLE's research informed the inclusion of social-emotional learning standards in Massachusetts teacher certification. Additionally, CANDLE contributed to a comprehensive response to Senator Bill Cassidy's report on literacy, providing an evidence-based approach to literacy and its neuropsychological underpinnings. CANDLE coauthored a major policy brief for the Aspen Institute Commission on Social, Emotional and Academic Development.
 - **Reach and Dissemination:** Directly engaged over 22,763 administrators and policy influencers to date, advocating for science-informed policy changes at district, state, and national levels.

4. Students and Youth Development Through its programs and research, CANDLE has reached students from diverse backgrounds, particularly those from marginalized communities. By offering students and young scientists opportunities to engage with neuroscience research, CANDLE encourages a new generation of scholars and promotes diversity within the field.

- **Student Engagement Opportunities:** 1,815 students have directly engaged with CANDLE through various research roles, internships, and collaborative projects.
- **Youth Development and Mentorship:** CANDLE prioritizes inclusive engagement, having recruited students from low-SES backgrounds for collaborative research roles, offering them mentorship and pathways into higher education and research careers. One former high school intern, initially an emancipated minor, recently completed a Ph.D., exemplifying CANDLE's commitment to empowering marginalized youth.

5. Families and Communities CANDLE has actively worked with families and communities through partnerships, outreach programs, and dissemination efforts that foster a community-based approach to education. By involving families and community organizations, CANDLE promotes a holistic understanding of adolescent development that resonates beyond the classroom.

- **Community Connections:** 156 engagements with family and community stakeholders, often involving workshops, school-based events, and collaborative projects.
- **Impact Through Partnerships:** CANDLE's family-oriented approach encourages communities to take an active role in their children's education, promoting resilience, critical thinking, and emotional well-being within families and neighborhoods.

Overall Impact (FY 2019–FY 2024):

- **Total Educators and Learners Reached:** Over 186,504.
- **Researchers Engaged:** 12,020 through publications, events, and academic citations.
- **Decision-Makers Informed:** Over 22,763 school and policy leaders.
- **Students and Youth Supported:** 1,815 in direct engagement roles.
- **Community Outreach Connections:** 156 significant family and community engagements.

Part VI – STRATEGIC OUTCOMES

The change that CANDLE's work will effect in any of the identified boundary partners must be observable. All outcomes are and will be monitored and evaluated regularly. The first level of outcome is what we expect to see, the second, what we would like to see, and third, a little more aspirational, what we would love to see.

- **LEARN:** Boundary partners will become aware of, recognize the value of, and deploy the science and science-informed practice.
- **LEAD:** Boundary partners understand, apply, integrate and facilitate adoption of the science and science-informed practice.
- **FLOURISH:** Boundary partners create, develop, build, and further the science and science-informed practice, without needing CANDLE staff to direct them. This would be evidence of fundamental, systems-level change.

In the following sections, the plan explores the strategies that will guide CANDLE as it lights the way to durable change in education.



SECTION 2: RESEARCH

PART I – INTRODUCTION

Research is and will remain the foundation of CANDLE’s work. We are building a new transdisciplinary science of adolescent development and learning in educational contexts that can help researchers address the real and evolving challenges educators are facing in their classrooms.

More than four years of work at CANDLE, rooted in more than a decade of neuropsychological research by Dr. Mary Helen Immordino-Yang and others, has clearly indicated that although secondary schools focus mainly on what kids know and can do, ultimately it is how kids think and feel (their deep engagement) that underlies brain development for durable, transferable learning, equity, and personal wellbeing. This insight has critical implications for pedagogical innovation that is context-dependent and attends to the subjective affective and cultural experiences of the individuals and communities doing the work. As such, our research holds promise to help society reframe the purpose, processes and outcomes of schooling in the modern era.

Our research team at CANDLE seeks to foster, produce, and disseminate cutting edge, relevant, original research that raises new questions, improves our understanding, deepens our analysis, widens our field of view, pioneers new approaches, and ultimately leads to new knowledge about learning and education through a new transdisciplinary science rooted in neuroscience and affective development.

Through the variety of projects and activities, our research team cultivates and supports innovative research across and within disciplines and at every level, from undergraduate students to senior scholars. By sponsoring scholar and innovation labs, research awards, public presentations and convenings, our research team aims to create opportunities for creative transdisciplinary collaboration and to promote linkages among scholars, students, educators and decision-makers, while producing and sharing important discoveries with the community at large. In addition to fostering, producing, and disseminating research for scholars and for the academy at large, our research team is committed to stimulating applied research that addresses vital real-world, practical problems in schools and our world today. This research can inform the rapid development of action-oriented resources grounded in evidence.

Our research team seeks to foster linkages and partnerships across different parts of the University, between the University and the local community of Los Angeles, and among scholars and practitioner leaders worldwide. In doing so, we seek to realize that CANDLE is recognized for its leadership in pioneering the essential, transdisciplinary science that is necessary to solving the challenges facing adolescent education in the modern era.

PART II – OUTCOMES STATEMENTS

Investigators, as defined above, are a key audience. The strategic goals outlined in this plan are focused on effecting observable behavioral change in this key audience. The strategies identified by the research team at CANDLE are aimed at effecting the following outcomes:

Investigators will **learn** about, engage with and co-create the science, lead the way in **integrating** it effectively into their own research and education, and so become agents in **systems change** based in new understandings.

PART III – STRATEGIC GOALS

GOAL 1: Undertake and facilitate basic and applied research across fields that contributes to the understanding of the importance of human development in adolescent education. The research agenda will include dedicated lines of inquiry into the developmental, psychosocial, and neurobiological dimensions of learning for students across diverse neurotypes.

CORE STRATEGIES

- 1.1 Establish research clusters, initiatives and programs, including ecologically valid research that is responsive to current pressing issues in education;
- 1.2 Engage investigators at all levels in the research programs and initiatives that facilitate production and dissemination of scholarship; and
- 1.3 Evaluate the effectiveness of CANDLE's programs with practitioners and change makers.

GOAL 2: Identify and establish plans and processes that will promote deepening engagement (learn, integrate and lead) among investigators of all levels.

CORE STRATEGIES

- 2.1 Identify funding sources for research programs and activities;
- 2.2. Develop and implement dissemination plan (peer-reviewed and translational);
- 2.3 Codify and disseminate the theories and methodologies unique to CANDLE;
- 2.4 Develop and implement a program of affiliated researchers who can help extend and deepen the transdisciplinary science; and
- 2.5 Develop and implement a partnership strategy to engage key stakeholders that can support CANDLE's efforts to engage scholars, disseminate information and shape the field.

GOAL 3: Communicate reach and impact to internal/external stakeholders in order to promote sustainability by developing CANDLE's influence among investigators and influencers.

CORE STRATEGIES

- 3.1 Build out a research communications node on the CANDLE website;
- 3.2 Share research findings and recommendations with stakeholders in a variety of ways, including white papers and other non-peer reviewed methods; and
- 3.3 Develop and implement a broad dissemination plan.

PART IV - ACTIVITIES and OUTPUTS

The activities and outputs outlined below are currently underway, in development, or in the design phase.

GOAL 1: Undertake and facilitate pure and applied research across fields that contributes to the understanding of human development in adolescent education.

STRATEGY 1.1 *Establish research clusters, initiatives and programs, including ecologically valid research that is responsive to current pressing issues in education.*

Define and Codify CANDLE's Research Agenda. Research staff will engage and work with affiliated scholars, partners, an advisory committee, faculty and other stakeholders to develop the research agenda that will guide its work over the next several years. Based on its previous accomplishments and engagements with scholars, developments in the disciplinary fields in which it works, and in light of programmatic and practical needs of other stakeholders, most particularly practitioners and policy makers, a research agenda will be codified and will serve to guide the priorities and activities to be undertaken. Research clusters, programs and initiatives are not siloed. They will intersect and overlap at times, enabling lively exchange and bringing mutual benefit to the different domains of research. More importantly – and core to the work of CANDLE – research will be integrated with practice and policy, working symbiotically.

Continue to Analyze and Disseminate Adolescent Longitudinal Study 1.0. The rich dataset from CANDLE's groundbreaking longitudinal research study of Latinx and East Asian adolescents from low SES neighborhoods includes neurobiological measures of social emotion processing as well as psychosocial interviews about the meaning youths made of social situations and personal experiences. Building on published findings, the dataset continues to generate novel analyses on adolescent brain and psychosocial development.

Design and Launch Adolescent Longitudinal Study 2.0. CANDLE’s previous findings from Adolescent Longitudinal Study 1.0 demonstrate that adolescents’ proclivity to grapple with the complexities of social and ethical situations, a psychological process we termed “transcendent thinking,” has a positive impact on youths’ brain and psychosocial development. We plan to launch a new longitudinal adolescent study to extend our existing work. The new study has three aims:

- Aim 1: To replicate findings from our previous longitudinal study.
- Aim 2: To examine transcendent thinking in academic domains.
- Aim 3: To examine how transcendent thinking in adolescents can be cultivated in schools.
- Aim 4: A cross-cutting priority will be to investigate how transcendent thinking manifests across neurodiverse populations, informing more inclusive instructional design and supports.

Continue to Analyze and Disseminate Teacher Study 1.0. CANDLE conducted a groundbreaking research study of the psychosocial and neurophysiological contributors to effective secondary teaching, using a combination of classroom observations, interviews, psychophysiological monitoring, and neuroimaging methods. Initial analyses reveal the influence of teachers’ transcendent thinking on the quality of teaching practices in the classroom. Neural evidence demonstrates the social and affective nature of effective teaching. We also show the impact of teachers’ regulatory capacities on students’ perceptions of academic support. Further analyses, dissemination of initial findings, and integration into professional development resources are ongoing.

Design and Launch Teacher Studies 2.0. Building on prior work on teachers’ developmental capacities undergirding effective secondary teaching, CANDLE is engaging a small cohort of teachers in innovative school districts to study how they create classroom contexts that support students’ deep learning and development. Findings from this study will inform the design of a new coordinated study of secondary teachers and their students’ transcendent thinking in academic domains. It will have potential implications for instructional design as well as teacher preparation and ongoing professional development.

Extension of Research on the Development of Transcendent Thinking. CANDLE will engage in a collection of small-scale research studies that examine transcendent thinking in other populations of interest than those reflected in the Adolescent Longitudinal and Teacher studies above, including pre-adolescents, students and teachers from alternative schools, individuals outside of the United States, and educators who are not classroom teachers (e.g., after-school program staff, school/district administrators). Research with younger-aged youth (10-13 years old) will facilitate a deeper understanding of the emergent developmental trajectory and potential precursors of transcendent thinking during early adolescence. Including studies that explicitly explore transcendent thinking among neurodiverse youth and educators to better understand strengths-based developmental pathways. Expanding research on transcendent thinking beyond the traditional educational contexts of the United States will lend insights into how learning around the world and experiences in alternative and extracurricular spaces support the development of transcendent thinking.

Investigate the applicability of AI in research practice. CANDLE will investigate how AI can extend and deepen the ways that we code and analyze data. Research will also provide support, looking into how AI can help further practice activities and professional learning activities. In parallel, we will investigate how adolescents’ engagement with AI and LLMs affects meaning-making, identity development, social cognition, and transcendent thinking. Because these technologies introduce new ethical considerations, including data privacy, biased outputs, inequitable access, and the potential displacement of relational or reflective learning, CANDLE’s work will prioritize a developmental and ethical framework that centers students’ wellbeing, agency, and dignity.

STRATEGY 1.2 *Engage investigators at all levels in the research programs and initiatives that facilitate production and dissemination of scholarship*

Launch Innovation Lab Research Advisory Board. We will engage a diverse group of investigators in guiding and enhancing CANDLE’s research program.

Postdoctoral Fellowships. We support early-career researchers in advancing innovative projects that drive knowledge and cultivate new ideas.

Student Internships. We offer student internships to provide hands-on research experience and foster involvement in CANDLE initiatives.

Research Awards Program. The program will offer a range of awards to support research, mentorship, and professional development, including fellowships for established and emerging scholars, as well as a mentorship program for underrepresented students.

- Endowed Fellowships: these scholars conduct research, share emerging discoveries, and disseminate to the field at the conclusion of their research.
- Affiliated Scholars – Partners, past participants, field leaders and Fellows (who become Affiliated Scholars at the conclusion of their commitment to the Fellowship) are identified as CANDLE affiliated scholars and have expected duties related to dissemination and mentorship; this is reserved for committed scholars who can help us drive awareness, adoption and co-creation.
- Emerging Scholars Fellowships – to support a cluster or initiative or program, junior scholar or senior students can be identified as fellows.
- Research Mentor Program - for Undergraduate Students from Underrepresented Groups (1 per year): this program is designed to support an undergraduate Junior or Senior in building the knowledge, skills and experience to conduct archival research within one of the research clusters.
 - This program is designed to provide a pathway for students who historically have not had access to research-related opportunities to develop their research skills and capacity.
 - This program addresses USC’s Strategic Plan for Diversity and Inclusion in Research and Scholarship: *“Create an environment where students who are under-represented in a discipline (including the research enterprise of that discipline) are more likely to participate in research (as, due to lack of networking and mentorship, they are less likely to take advantage of such opportunities)”* and USC Rossier’s Diversity program.

Host Presentations, Workshops and Convenings. These programs take different forms dictated by the intended outcome of the program, but are generally meant to establish a consistent way for sharing information with the field, scholars and potential scholars. These programs are generally brief, focused engagements that provide opportunities to learn, disseminate, demonstrate and generally promote engagement with the target audiences. For example:

- Webinar “round tables” for Research Fellows, Affiliated Scholars and Staff-Scholars to disseminate new scholarship, share emerging ideas and methodologies, etc.
- Virtual workshops focused on practical, hands-on demonstrations and discussions aimed at promoting scholars’ skills and knowledge of the transdisciplinary science and its impact.

STRATEGY 1.3 *Evaluate the effectiveness of CANDLE’s programs with practitioners and change makers.*

Monitoring and Evaluation Program. We will monitor and evaluate the efficacy of CANDLE’s initiatives with practitioners and change agents to track progress towards our program goals and inform further iterations.

GOAL 2: Identify and establish plans and processes that will promote deepening engagement (learn, integrate, lead) among investigators of all levels.

STRATEGY 2.1 *Identify funding sources to support research programs and activities*

Funding Strategy. We will develop a plan to acquire funding for programs, initiatives and other work. The plan will be strategic, evidence-based and developed in close collaboration with the Advancement group. The funding strategy will be holistic in nature - which will take into account both acquired funding, in-kind support via collaborations with scholars and other similar activities.

- Work with advancement to identify seed and endowment funding for new fellowships - including for new lines of research and for advancing diversity and inclusion in research.
- Focus on innovative/new collaborations
- Focus on national-level, strategic funding opportunities

Recognition Strategy. We will develop a series of activities that will bring recognition to CANDLE's various efforts across programs and initiatives, as well as generally drive awareness of our place in the market. Sample activities will include:

- Because awards are influential in faculty hiring, promotion and tenure, we will develop a faculty-scholar award program for those scholars and faculty members who have:
 - Exemplified innovative, transdisciplinary research and dissemination
 - Demonstrated commitment to integrating CANDLE research into courses
 - Demonstrated commitment to mentoring young/emerging scholars at their universities in transdisciplinary science
- Develop pathways for research staff to serve on national and international boards, advisory committees and other similar service organizations that will increase CANDLE's profile and recognition

STRATEGY 2.2. *Develop and Implement Dissemination Plan*

Research Dissemination Plan. We will create a multi-pronged plan for sharing results from research facilitated and undertaken by CANDLE through its various programs. The plan will include dissemination in various formats and across multiple platforms - new and traditional, including:

- Scholarly, peer-reviewed presentations and publications (traditional/digital publications)
- Policy briefs
- White papers
- Public communications strategy (includes OpEds, etc.)
- Online strategy: website, social media, SFI, partner websites, public scholarship
- Professional organization list-serves and networks
- Media coverage: press releases, podcasts and awareness events
- USC libraries network
- USC centers and similar Divisions that engage faculty and scholars - e.g. Center for Excellence in Teaching/USC Research, etc.

Templates for Sharing Information. We will engage expertise on effective presentation of information for our stakeholders. This may include engaging a graphic designer to prepare accessible and visually appealing reports, one-pagers and other material that can promote lay readers' understanding of CANDLE's efforts and contributions to real-world problems.

- research summaries
- briefs
- newsletter
- infographics

STRATEGY 2.3. *Codify and disseminate the theories and methodologies unique to CANDLE*

Codify Internal Domains of Work at CANDLE. CANDLE is pioneering unique, ground-breaking transdisciplinary research. If we are to succeed in developing awareness and interest among scholars, it is necessary to invest in the dissemination of theoretical and methodological papers, posters and presentations. In addition to peer-reviewed works, it will be important to develop documentation that is more public facing and describes the processes and approaches that are unique to the center.

Codify and publish those methodologies that are unique to CANDLE in easily accessible and applicable ways. Similar to the CASEL wheel, CANDLE will document and share its framework for developmentally focused adolescent education based on their research and that of other organizations.

STRATEGY 2.4. *Develop and implement a program of affiliated investigators who can help extend and deepen the transdisciplinary science.*

Affiliated Investigators Strategy. We will engage researchers, scholars and others to foster collaborations, cooperation and other research engagements that will increase our profile, allow us to leverage resources, and foster interdisciplinary research. We will communicate about these affiliated scholars and expect them to communicate about their affiliation with us, increasing awareness through their networks.

STRATEGY 2.5. *Develop and implement a partnership strategy to engage key stakeholders that can support CANDLE's efforts to engage investigators, disseminate information and increase CANDLE's reach.*

Partnership Strategy. We will engage entities (e.g. college/university research centers, think tanks, government, and other research and evaluation-focused organizations) to foster collaborations, cooperation and other research and evaluation efforts that will increase our profile, allow us to leverage resources, and foster interdisciplinary research.

GOAL 3: Communicate reach and impact to internal/external stakeholders to promote sustainability by developing CANDLE's influence among investigators and influencers

STRATEGY 3.1. *Build out a research communications strategy, including a node on CANDLE's website*

Communications Strategy for Internal Knowledge-Sharing. We will create targeted opportunities to share the work of CANDLE's research team with internal staff and stakeholders. This will include informal and formal presentations that will aim to provide stakeholders with understanding of CANDLE's research team's work, outcomes and role within the Institute:

- brief, targeted programming: presentations, demos, workshops
- prepare highly visual and accessible information about research findings, scholarly production, translational research and dissemination

STRATEGY 3.2. *Share research findings and recommendations*

Diversification of Dissemination. We will develop a plan for new forms of dissemination in collaboration with stakeholders, including scholar advisors, team members, coauthors, communications team/PR professionals and other stakeholders. Sample forms of dissemination might include:

- policy and issue briefs
- white papers
- “impact in profile” series
- guidelines
- podcast series
- other programming

STRATEGY 3.3. *Develop and implement broad dissemination plan*

Coordinated Dissemination and Impact Plan. We will develop a plan that will guide the strategic dissemination of CANDLE’s research and that which has resulted from CANDLE’s programs, initiatives and other efforts.

- plan developed in coordination with internal and external stakeholders
- to be guided by the dissemination plan (see above)

Impact will be evaluated/measured in terms that are consistent with best practices in research, including:

- Increases in the number and reach of peer-reviewed publications;
- Increases in the number and reach of presentations;
- Increases in citations of CANDLE research;
- Improving h-index of CANDLE researchers and partners; and
- Number of PhD-level, undergraduate-level, and high school students engaged in the research
- Success of postdoctoral fellows in securing new positions/publications



SECTION 3: PRACTICE

PART I – INTRODUCTION

At CANDLE, we are committed to transforming educational practice by integrating developmental neuroscience with pedagogical innovation. A central focus of this work is ensuring developmental science translates into practices that meaningfully support neurodiverse learners, whose perspectives enrich and challenge conventional notions of engagement and cognition. Our approach is not simply about transferring research insights to educators; it's about creating a dynamic, collaborative environment where educators actively engage with and apply scientific knowledge to their work, in their unique contexts. Through initiatives like the CANDLE Innovation Lab and the development of COLABs (collaborative learning and action-based cohorts), we aim to foster practices that promote deep student engagement, transcendent thinking, and lifelong learning.

- Demonstrating the power of integrating developmental neuroscience with pedagogical innovation in addressing the very real challenges that are facing the educational system today. We propose to build an innovation lab that brings researchers, educators, students, and administrators into collaboration to change understanding of the developmental opportunities of schooling, and to build and share practicable, scalable solutions based on this information that are adaptive to diverse contexts and revolutionize learning.

PART II – OUTCOMES STATEMENTS

The research CANDLE is undertaking holds promise to help society reframe the purpose, processes and outcomes of schooling in the modern era. But to make good on this promise requires bringing educators, administrators, students and developmental scientists into deep conversation, working closely together to enact and expand what is possible, in both the classroom and in the lab. If we successfully breakdown the research-practice divide and facilitate the successful metabolization of the science by practitioners, the result will be teachers with new awareness and understanding of their work with youth that can be used adaptively and responsively to innovate in the classroom.

The strategies identified by the education team at CANDLE are aimed at effecting the following outcomes:

- **Educators** will have a deeper understanding of developmental science and apply it to enhance student engagement and learning.
- **Practitioner-led innovation** will create evidence-based, adaptable practices that improve educational outcomes and can be scaled to other contexts.
- **COLABs and the Innovation Lab** will serve as models for how neuroscience and education can collaborate effectively, setting a precedent for national and international adoption.

PART III – STRATEGIC GOALS and STRATEGIES

GOAL 1: Build and implement the CANDLE Innovation Lab to empower educators in applying developmental science in diverse classroom settings.

CORE STRATEGIES

- 1.1 Launch the CANDLE Innovation Lab to serve as a hub for educational innovation, supporting practitioners in translating neuroscience into practical strategies.
- 1.1 Design and implement COLABs to support educators in metabolizing scientific insights into actionable teaching practices. These COLABs will bring together school-based cohorts of teachers and administrators to pilot and refine developmental science-informed practices.
- 1.1 Develop scalable resources and in-service training modules that adapt to various educational contexts, ensuring the tools and practices generated are accessible and relevant across different schools and communities.

GOAL 2: Foster a network of empowered, science-informed practitioners to lead educational transformation.

CORE STRATEGIES

- 1.1 Establish a practitioner fellowship program to support teachers who demonstrate leadership in science-informed pedagogy, equipping them to serve as ambassadors and mentors. Fellows will help advance inclusive pedagogies for all types of learners, including those that are neurodiverse.
- 1.2 Develop an interactive digital space that facilitates the dissemination of resources, professional development, and peer support. This platform will enable educators to access CANDLE's resources, collaborate, and share insights.
- 1.3 Engage strategic partners to expand the reach and impact of our resources, connecting with preservice

- and in-service teacher training programs, schools of education, and other educational organizations.
- 1.4 Intervene and develop new leadership, Masters of Teaching programs and university level courses.
 - 1.5 Develop a sustainable professional learning model, informed by science.
 - 1.6 Design and disseminate professional learning and teaching resources.

GOAL 3: Strengthen the connection between practice and research, creating a feedback loop that continuously enhances both domains.

CORE STRATEGIES

- 1.1 Host annual convenings, workshops, and COLAB-based sessions where practitioners and researchers can collaborate, share insights, and co-create solutions to real-world educational challenges.
- 1.2 Integrate practitioner insights and classroom experiences into ongoing CANDLE research, ensuring that our studies are grounded in the needs and realities of educators.
- 1.3 Establish an advisory board of educators and field experts to guide the Innovation Lab and COLAB development, ensuring our practices remain responsive to emerging challenges and aligned with practitioners' needs.
- 1.4 Integrate findings from AI research into tools to support scaling professional learning.

PART IV – ACTIVITIES and OUTPUTS

The activities and outputs outlined below are currently underway, in development, or in the design phase.

GOAL 1: Build and implement the CANDLE Innovation Lab to empower educators in applying developmental science in diverse classroom settings.

STRATEGY 1.1 *Launch the CANDLE Innovation Lab to serve as a hub for educational innovation, supporting practitioners in translating neuroscience into practical strategies.*

STRATEGY 1.2 *Design and implement COLABs to support educators in metabolizing scientific insights into actionable teaching practices. These COLABs will bring together school-based cohorts of teachers and administrators to pilot and refine developmental science-informed practice.*

Launch Innovation Lab COLABs. We will identify and facilitate a group of 12-30 **diverse COLAB cohorts** from across the US, inviting individuals from a broad range of perspectives and contexts, including indigenous approaches, to participate. Selected milestones:

- Finalize design of COLAB program based on initial findings, including refining evaluation and monitoring protocols and instruments;
- Recruitment and selection of COLAB cohort 1 (spring 2025);
- Refine design based on reflective process;
- Recruitment and selection of COLAB cohort 2 (spring 2026);
- Preparatory program with COLABs;
- Summer institute with COLABs;
- Regular meetings with COLABs, across COLABs (current and previous), and with research team;

- Implementation of school programming;
- Reflective process, monitoring and evaluation of COLABs;
- End of year convenings; and
- Production of Reflective Reports, M&E reporting and Annual Reports.

STRATEGY 1.3 *Develop scalable resources and in-service training modules that adapt to various educational contexts, ensuring the tools and practices generated are accessible and relevant across different schools and communities.*

Working with leaders in professional learning, we will collaboratively develop resources that manifest the science to improve the experience of students in classrooms:

Release of Self-Study Professional Learning Guides. Based on scientific findings from CANDLE research studies, we developed and tested professional development prototypes to inform pilot sessions on transcendent thinking and educator wellness. Through a co-design process with practitioners, we will iterate on these sessions to develop a series of self-study professional learning guides on these topics, which can be used as models by schools and districts to build educator capacity.

Documentation of Transcendent Thinking Measures. CANDLE has extensive expertise in identifying transcendent thinking from interviews and open-ended survey questions. To build scalable solutions, we are developing automated tools that can evaluate text for transcendent thinking. Using our existing datasets, we will be training a context-agnostic tool to reliably and validly identify transcendent thinking. This type of measure would allow for greater access and scale for researchers and schools.

Development of AI tools to Further Professional Learning and Scale. Based on research development, CANDLE will develop AI driven professional learning solutions to support scaling of educator development.

GOAL 2: Foster a network of empowered, science-informed practitioners to lead educational transformation.

STRATEGY 2.1 *Establish programs to support teachers who demonstrate leadership in science-informed pedagogy, equipping them to serve as ambassadors and mentors.*

Strategic Partnerships with Professional Learning Leaders and Influencers. We will forge strategic partnerships with professional learning leaders and influencers to strengthen the support network for teachers who are leading the field in science-based teaching practices, and help them mentor and influence others.

Practitioner Fellowship Program. We will recognize and support practitioners who are leaders in implementing science-informed pedagogy, providing them with opportunities to deepen their expertise.

STRATEGY 2.2 *Develop an interactive digital space that facilitates the dissemination of resources, professional development, and peer support. This platform will enable educators to access CANDLE’s resources, collaborate, and share insights.*

Distribution Channels. Using our own existing and newly developed, leading partner channels and major existing distribution channels to extend the reach of resources will be a high priority to encourage broad adoption. We will consider those distributors already having an impact in delivering high-quality curriculum to high schools, including entities such as Discovery Education.

STRATEGY 2.3 *Engage strategic partners to expand the reach and impact of our resources, connecting with preservice and in-service teacher training programs, schools of education, and other educational organizations.*

Advisory Board. We are launching a diverse **Educational Advisory and Collaboration Board**. Selected milestones:

- Identify and activate diverse members with extensive experience and skillsets in education reform and research;
- Set terms of reference and expected activities;
- Launch board;
- Leverage the board in the pedagogical development and research processes in an ongoing way through regular and ad hoc meetings; and
- Produce annual report on activities and learnings.

Consortium of Schools. Having worked with school districts and schools for several years, we are formalizing the relationship with them to form a consortium of schools who have adopted and integrated the work of CANDLE.

STRATEGY 2.4. *Intervene and develop new leadership, Masters of Teaching programs and university level courses.*

Course Development. Based on the findings of COLABs, we will develop a scalable professional learning model in concert with strategic partners, work to integrate such a model into existing and new professional development systems, and make it freely available via digital distribution networks. Elements include:

- Market and landscape analysis to determine opportunity for graduate and undergraduate courses;
- Identification of partners to support and design, including distributors; and
- Propose new courses and implement once approved.

Certification and Degree Program Development. Based on the findings of COLABs and the ongoing science, we will design and implement various pre and in-service credential programs. These will be integrated into existing schools of education degree offerings and new micro-credential and professional credentialing. These programs will reflect the science and practices developed by CANDLE.

- Conduct market and landscape analyses;
- Coordinate and integrate with RSOE MAT programs;
- Partner with at least 3 schools of education; and
- Establish a post degree credential program.

STRATEGY 2.5 *Develop a sustainable professional learning model, informed by science.*

Professional Learning Model. Based on the findings of COLABs, we will develop a scalable professional learning model in concert with strategic partners. We will work to integrate such a model into existing and new professional development systems and make it freely available via digital distribution networks.

STRATEGY 2.6 *Design and disseminate professional learning and teaching resources.*

Diversification of Dissemination. Working with leaders in professional learning and distribution channels trusted by practitioners, we will develop plans for new forms of dissemination of professional learning resources. Sample forms of dissemination might include:

- integration with existing professional learning and educator resource networks
- educator profiles
- white papers
- “impact in profile” series
- guidelines
- podcast series
- advising partners on production of professional learning and teaching resources.

GOAL 3: Strengthen the connection between practice and research, creating a feedback loop that continuously enhances both domains.

STRATEGY 3.1. *Host annual convenings, workshops, and COLAB-based sessions where practitioners and researchers can collaborate, share insights, and co-create solutions to real-world educational challenges.*

Publish Findings. We will be hosting COLAB convenings and facilitating dissemination opportunities, engaging national and international practitioner audiences in the conversation. Selected milestones:

- Joint presentations at nationally recognized academic and practitioner-oriented education conferences;
- Publications of findings about practice in recognized peer-reviewed journals of teaching, learning and human development, and in practitioner-directed publication outlets;
- Dissemination of resources and supports produced by COLABs; and
- Annual convening of COLABs.

Building out the **technological and human infrastructures**. Selected milestones:

- Securing expertise and leadership (reorganizing CANDLE roles as necessary);
- Identifying and hiring program management staff; and
- Updating CANDLE media identity and website (forging strategic collaborations for dissemination when cost effective and strategically advantageous).

STRATEGY 3.2 *Integrate practitioner insights and classroom experiences into ongoing CANDLE research, ensuring that our studies are grounded in the needs and realities of educators.*

Coordinated Dissemination and Impact Plan. We will coordinate the work of the research team and practitioners to share information, leading to the co-creation of research. In turn, we will determine strategic dissemination of the coordinated results from CANDLE’s programs, initiatives and other efforts.

- plan developed in coordination with internal and external stakeholders
- to be guided by the dissemination plan (see above)

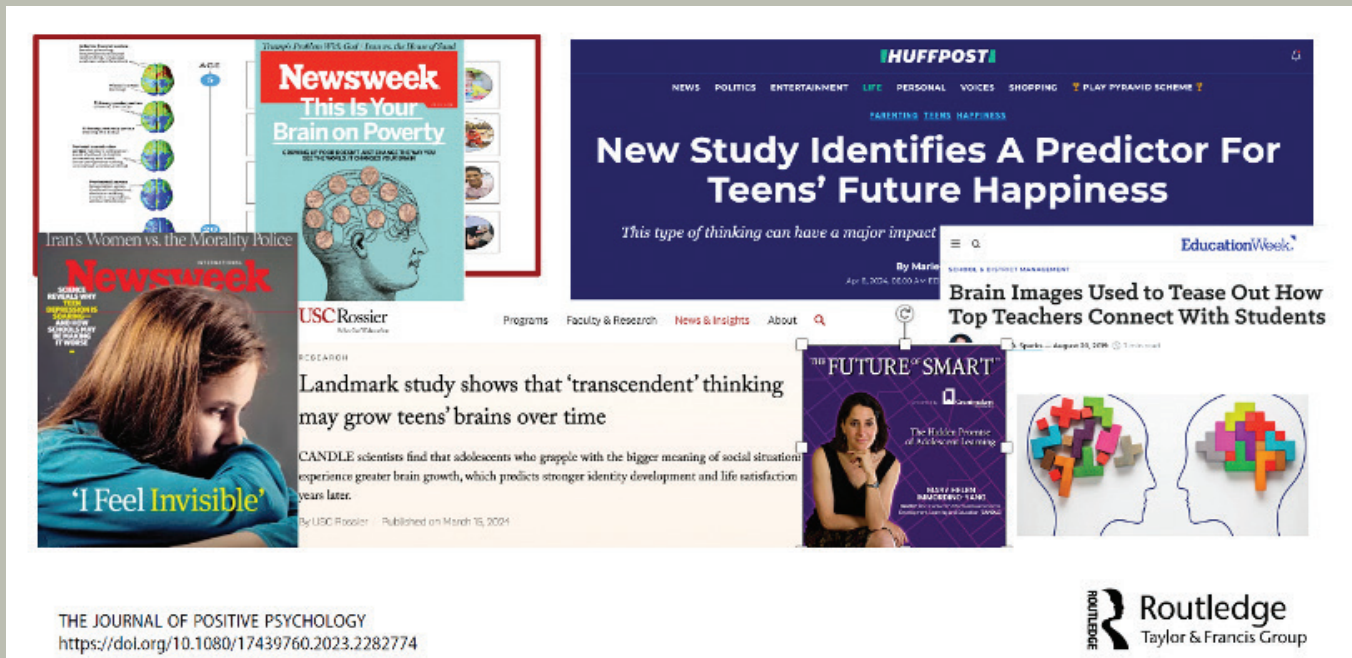
Impact will be evaluated/measured in terms that are consistent with best practices in research, including:

- Increasing number and reach of peer-reviewed publications for practitioner and administrator audiences;
- Increasing number and reach of presentations;
- Increases in citations of CANDLE research in education research;
- Improving h-index of CANDLE researchers and partners; and
- Number of PhD-level, undergraduate-level, and high school students engaged in the research
- Success of postdoctoral fellows in securing new positions/publications.

STRATEGY 3.3 *Establish an advisory board of educators and field experts to guide the Innovation Lab and COLAB development, ensuring our practices remain responsive to emerging challenges and aligned with practitioners' needs.*

Advisory Board. We are launching a diverse **Educational Advisory and Collaboration Board**. Selected milestones:

- Identify and activate diverse members with extensive experience and skillsets in education reform and research;
- Set terms of reference and expected activities;
- Launch board;
- Leverage the board in the pedagogical development and research activities in an ongoing way through regular and ad hoc meetings; and
- Produce annual report on activities and learnings.



SECTION 4: POLICY AND PUBLIC ENGAGEMENT

PART I – INTRODUCTION

Transforming adolescent education at scale – or effecting a Copernican shift – requires not only innovative research and practice but also a fundamental shift in policy. A critical dimension of this work is elevating public understanding of neurodiversity as a natural and valuable form of human variation, and advocating for policies that create supportive contexts for all learners. In many ways, this is about taking the change we are observing among individuals and seeing it at district, state, national and systems levels. Additionally, debates about AI in education increasingly require developmental science and ethical clarity. CANDLE will contribute to policy discussions by articulating the developmental, privacy, equity, and civic implications of AI adoption in schools, ensuring that emerging policies safeguard young people’s rights, identities, and wellbeing.

At CANDLE, we are dedicated to reshaping how society understands and values adolescent education by engaging with policymakers, media, and the public. Through strategic public engagement and policy initiatives, we aim to influence the broader educational landscape, promoting policies that prioritize human development and emotional engagement.

This area of work is a new priority for CANDLE, and as such will take some time to develop more fully over the course of this strategic plan.

PART II – OUTCOMES STATEMENTS

Change makers and those who act as gatekeepers in education will **learn** about, become aware of and engage with CANDLE’s science; lead the way in **integrating** it into effectively into their own educational contexts, facilitating adoption and so becoming agents in **systems change** based in new understandings. Specific outcomes include:

- **Policy change** that supports the integration of developmental science into educational standards and practices.
- **Increased public awareness** of the importance of adolescent development and transcendent thinking in education, driving demand for reform.
- **CANDLE recognized** as a leading voice in the public and policy discourse on adolescent education, influencing both local and national education policies.

PART III – STRATEGIC GOALS and STRATEGIES

GOAL 1: Influence policy to support science-informed, developmentally appropriate education practices.

CORE STRATEGIES

- 1.1 Develop a comprehensive policy strategy that positions CANDLE’s work at the forefront of educational reform. This strategy will include partnerships with policy influencers and think tanks, as well as contributions to policy briefs and reports that advocate for developmentally aligned educational practices.
- 1.2 Develop a comprehensive media and communications strategy.
- 1.3 Collaborate and partner with USC Rossier’s EdPolicyHub and other educational policy organizations to disseminate findings and promote policy changes that reflect CANDLE’s insights into adolescent learning and development.
- 1.4 Host policy-focused convenings and discussions that bring together educators, policymakers, researchers, and the public to discuss the implications of CANDLE’s research and its potential for systemic change.

GOAL 2: Engage the public in a dialogue about the value of developmental neuroscience in education.

CORE STRATEGIES

- 1.1 Design and implement a public engagement strategy that includes media outreach, partnerships with thought leaders, and accessible content like podcasts, articles, and videos that explain CANDLE’s approach and findings.
- 1.2 Launch a media series focusing on teacher practices and student development, highlighting the benefits of neuroscience-informed education and its potential to address current educational challenges.
- 1.3 Establish a dedicated section on the CANDLE website for policy and public engagement, providing accessible resources for parents, educators, and community leaders interested in the science of adolescent development.

GOAL 3: Establish CANDLE as a thought leader in reshaping societal perceptions of adolescent education.

CORE STRATEGIES

- 1.1 Initiate a series of “talks” and events featuring CANDLE researchers, educators, and policy experts, to drive public discourse on the role of education in human development.
- 1.2 Develop an ambassador program that empowers practitioners and educators to share their experiences and advocate for neuroscience-informed practices in their communities and with policymakers.
- 1.3 Produce regular publications, including white papers and policy briefs, that outline CANDLE’s recommendations for creating educational environments conducive to adolescent development and well-being.

PART IV – ACTIVITIES and OUTPUTS

The activities and outputs outlined below are currently underway, in development, or in the design phase.

GOAL 1: Influence policy to support science-informed, developmentally appropriate education practices.

STRATEGY 1.1 *Develop a comprehensive policy strategy that positions CANDLE’s work at the forefront of educational reform. This strategy will include partnerships with policy influencers and think tanks, as well as contributions to policy briefs and reports that advocate for developmentally aligned educational practices.*

Policy Strategy. Taking advice from leading policy influencers, we are building out CANDLE’s voice to raise awareness and deepen understanding of the importance of CANDLE’s findings. We are undertaking a landscape analysis to determine the most effective ways to inform and influence policy.

STRATEGY 1.2. *Develop a comprehensive media and communications strategy.*

Communications and Social Media Strategy. We are building out CANDLE’s voice across channels to raise awareness and deepen understanding of the importance of CANDLE’s findings.

STRATEGY 1.3 *Collaborate and partner with USC Rossier’s EdPolicyHub and other educational policy organizations to disseminate findings and promote policy changes that reflect CANDLE’s insights into adolescent learning and development.*

Policy Strategy. We will increase CANDLE’s expertise and ability to engage on policy issues. Strategy will include:

- Landscape analysis of opportunities and potential partners;
- Development of strategic partnerships with influencers in the policy space;
- Publication of policy implication papers in public forums.

STRATEGY 1.4. Host policy-focused convenings and discussions that bring together educators, policymakers, researchers, and the public to discuss the implications of CANDLE’s research and its potential for systemic change.

Offer a Roust Series of Conversations and Convenings. We are working with partners and leading influencers to establish public conversations aimed at informing policy, raising awareness and influencing organizations whose work informs policy. The programs will also resonate with the public and help to change beliefs about what is important in adolescent education.

GOAL 2: Engage the public in a dialogue about the value of developmental neuroscience in education.

STRATEGY 2.1. Design and implement a public engagement strategy that includes media outreach, partnerships with thought leaders, and accessible content like podcasts, articles, and videos that explain CANDLE’s approach and findings.

Public Engagement Strategy. We are working with partners with broad distribution to create media resources that resonate with the public and help to change beliefs about what is important in adolescent education.

STRATEGY 2.2. Launch a media series focusing on teacher practices and student development, highlighting the benefits of neuroscience-informed education and its potential to address current educational challenges.

Success Stories Features. We will develop and produce a series of public engagements highlighting practitioner and student success. The stories would be from a widely diverse experience group, demonstrating the efficacy of CANDLE’s approach to meeting the needs of students and educators from across the US, first, and globally in a subsequent phase. This series will be aimed at demonstrating the need to reconsider adolescent education.

STRATEGY 2.3. Establish a dedicated section on the CANDLE website for policy and public engagement, providing accessible resources for parents, educators, and community leaders interested in the science of adolescent development.

CANDLE Website. We will renew the website and make it a destination that better reflects CANDLE’s strategic outlook.

GOAL 3: Establish CANDLE as a thought leader in reshaping societal perceptions of adolescent education.

STRATEGY 3.1 Initiate a series of events featuring CANDLE researchers, educators, and policy experts, to drive public discourse on the role of education in human development.

CANDLE will embark on dedicated programming aimed at increasing awareness about our work, including:

- Regular Online Programming
- Annual or Semi-Annual Conference and Convenings
- Integration into Professional Communities for Special Sessions
- Speaker Series

STRATEGY 3.2. *Develop programs that activate practitioners and researchers as policy advocates; empower them to share their experiences and advocate for neuroscience-informed practices in their communities and with policymakers.*

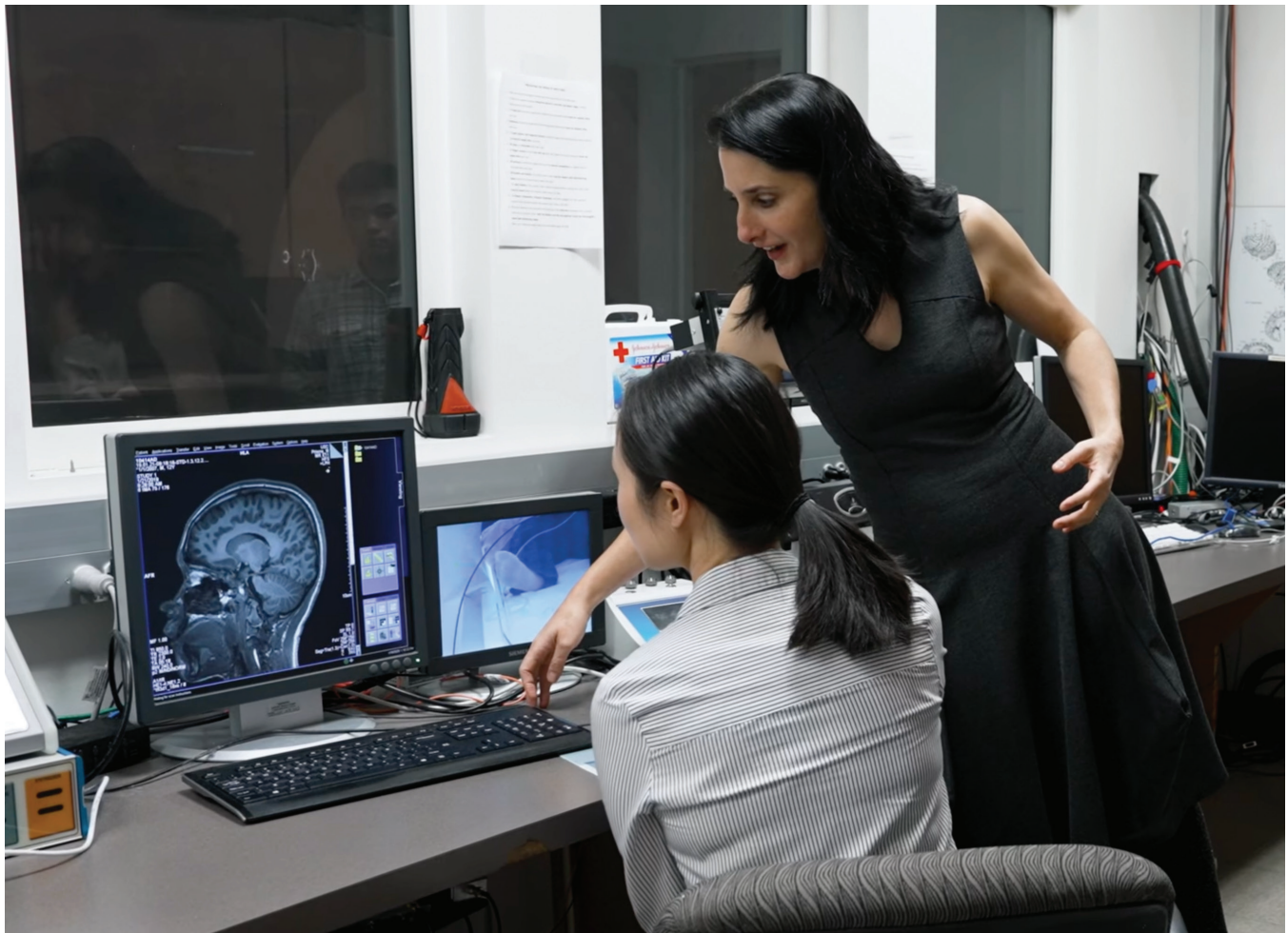
Ambassador Program
Mentorship Program

STRATEGY 3.3 *Produce regular communications that outline CANDLE’s recommendations for creating educational environments conducive to adolescent development and well-being.*

We will significantly increase and regularize communications that are aimed at increasing CANDLE’s influence, including:

- CANDLE Newsletter
- CANDLE Policy Briefs and White Papers
- Monograph Publication

In addition, we will work closely with media teams to ensure that CANDLE staff are recognized as expert commentators and reporters.





SECTION 5:

PROGRESS MARKERS AND IMPACT

- CANDLE’s work will be evaluated using the observable changes that occur among our primary and secondary audiences and beneficiaries using validated, verifiable quantitative and qualitative measures. Because some of our activities are new or early phase, we plan to spend some time in identifying and adapting measurement tools and plans in years 1 and 2 of this plan. Overall, success will be measured in terms of the way that the research has been altered by the experience of collaborating with teachers and students, and by the strategic partnerships and ongoing relationships with the advisory boards and others. At the end of this project, we anticipate having a much deeper understanding of how to best serve the communities with respect to the provision of resources and professional development opportunities that can help change the nature of schooling.
- In terms of the outcomes regarding research and scholarship, we will be able to measure the increased reach, influence and impact of scholarly outputs by enumerating the traditional metrics: generating cutting-edge research that is disseminated in high-impact peer-reviewed journals; increasing number of invitations to present on the findings at highly-ranked peer-respected conferences and convenings; increasing numbers of other scholars citing the work of CANDLE; and launching a talented group of diverse young scholars who are bringing new ideas and approaches to the field and who in time themselves become leading scholars. Harder to observe, but no less important, will be indications of

how CANDLE's influence within the sciences changes and grows: how insights from the project lead to the rethinking, reconceptualization and disambiguation of the way education-relevant developmental science is done; in the topics and methods that other scholars begin engaging that build from our work; and in how others' research is refined to better reflect the importance of cultural context as fundamental in understanding and doing the science. These will be judged informally, based on conversations and observations of others' work, on references to our work in others' publications, on referrals to our lab of colleagues' students, on invitations to collaborate on research, on the ways our work is discussed by others in the scholarly literature, and on scholarly invitations to speak, among other things.

Example performance measurements of progress and success included here, with a focus on a holistic set of KPI's that take into account both academic and sustainability measures:

- academic: rigor of research, dissemination (peer reviewed, etc.), impact in the field
- sustainability: fundraising; rate of funded projects (in-kind and directly-funded; diversity of funded areas of research)
- Sample Areas to Track:
 - Funding as a total #
 - Rate of grants awarded / Grants submitted
 - Faculty support (Grant and GF) – quantify funding as a total # of staff hours
 - Number of Students participating in research
 - Number of students from underrepresented groups participating in research
 - Number of scholars undertaking research using our methods
 - Publications per year
 - Presentations per year (by research staff, peer-reviewed/non)
 - Mention of research in media
 - Program ranking or other recognition
 - partnerships/collaborations and other engagements with external entities
 - Number of USC Divisions participating in CANDLE's activities
 - Staff production of scholarship: rates, diversity of areas of scholarship, peer-reviewed
 - Reach and Impact
 - Participants in programs
 - Number of applicants for programs and fellowships
 - Geographic
 - Disciplinary
 - Demographic
 - Thematic

- In terms of the teaching and learning components of the project, the measure of success will be reflected in the ability of the members of the cohort to successfully metabolize the science and integrate it into their practice in a way that deepens and improves the engagement and learning of students. For students, we are particularly looking for indications of transcendent thinking. For teachers, we are particularly looking for evidence of increased capacities to situate pedagogical activities and decisions in asset-based understandings of students' developmental trajectories. We will be looking for teachers to leverage their scientific understanding in ways that allow them to notice and analyze students' learning processes in more sophisticated, dynamic and collaborative ways that also involve student agency and voice. We will evaluate the practitioner learning, changes in teaching practices, and changes in behavior and learning within the COLABs and their schools, and examining these changes using our established protocols and new instruments we will collaboratively design. In addition, we will be interested in observing the behavior of others and their response to the shared outputs from the COLABs—that is, to see how the COLABs' insights are being taken up more broadly. In less concrete terms, success will also be understood in terms of the personal and professional experiences of the educators and administrators who participate. How do they feel about the program, and about their evolving role in the classroom? What do they believe has been transformative learning for them as educators? What do the students have to say about their experiences, and what suggestions do they or their families have? CANDLE has extensive experience in collecting, coding and analyzing the types of qualitative measures that can elucidate these aspects.
- We are particularly interested in understanding how educators metabolize the science, including the processes and pitfalls across diverse contexts, with the aim of supporting the broader field in replicating and extending this work sustainably and equitably. In part, the success of this project will only be fully understood following the initial term of the project. Understanding the development of teachers' capacities to integrate the science into their practice in a sustainable way, and what that means for the experiences of students over time, will only become clear with time. We will be able to see indications or predictors of long-term positive impacts.

Example performance measurements of progress and success included here, with a focus on a holistic set of KPI's that take into account both practical and sustainability measures:

- practical: quality of resources; levels of dissemination and adoption; size of network; student success; impact in the field
- sustainability: fundraising; rate of funded projects (in-kind and directly-funded), diversity of funded areas of research); increased size of organization; number of affiliated scholars
- Sample Areas to Track:
 - Funding as a total #
 - Rate of grants or gifts awarded / proposals submitted
 - Faculty support (Grant and GF) – quantify funding as a total # of staff hours
 - Numbers of educators impacted
 - Numbers of administrators impacted
 - Number of Students impacted
 - Number of students from underrepresented groups participating
 - Quality of resources (awards, recognitions, etc.)
 - Presentations per year
 - Professional development programs
 - Integration into courses, programs or other materials

- Mention of work in media
- Program ranking or other recognition
- partnerships/collaborations and other engagements with external entities
- Reach and Impact
 - participants in programs
 - # of applicants for programs and fellowships
 - Geographic
 - Disciplinary
 - Demographic
- Measuring our impact in terms of policy and public engagement is an area that we are only starting to explore given the nascent status of this area of work. We anticipate increased interest, demand and traffic to our various channels as awareness about the work of CANDLE increases. We will track that based on website traffic, engagement across communications channels, participation in convenings and events, and interest in engaging the method. We will track how all audiences become aware of, recognize the value of, use and integrate the results of the project both in terms of the research product and the practical examples, resources or interventions designed by the teachers. Similarly, we will track the impact in policy terms, seeking to see the work reflected in policy decisions and discussions at the state, federal and international levels. In part, we will gather this information by collaborating with advisory board members.





SECTION 6:

CONCLUSION

The Plan lays out a map for ambitious but sustainable growth over the next five years. It is necessarily bold because of the urgent need for the changes to adolescent education. Making such a Copernican shift in the educational system is ambitious and this strategic plan begins to identify the steps that we can take to begin to facilitate that change, contributing our unique developmental science to the field. Success will be progress on the identified outcomes as articulated within the plan.

Success will be measured in quantitative and qualitative ways, many of which are outlined within the plan itself.

Success will be measured in our ability to secure the necessary resources. Thanks to several key investments, CANDLE has started to grow and increase its capacity. Additional investment and revenue generation will be necessary.

Financial Goals –

- Year 1: \$1.5 million annual budget
- Year 3: \$ 5 million annual budget
- Year 5: \$ 10 million annual budget.
- Initiate an Endowment to ensure the long-term success.

Success will be measured in our ability to reach our target audiences (scholars, educators, administrators) and ultimately impact students.

Reach Goals –

- Year 1: 750,000 individuals reached
- Year 3: 2 million individuals reached
- Year 5: 5 million individuals reached

Success will also be measured by our ability to live our values. These values help shape who we are, how we work, who we work with and the kinds of questions we take on. At CANDLE, we are:

- Inclusive and diverse;¹
- Humanistic, holistic and collaborative;
- Innovative, curious, and creative;
- Courageous, principled and disciplined;
- Above all else, we value good science that has impact, generates insight and changes understanding;
- We value and care about others and ourselves, and building community;
- Global and local;
- Transdisciplinary;
- Transparent, trustworthy, supportive, caring, open;
- Integrative, communal;
- Strategic, future-oriented, r/evolutionary; and
- Developmental and process oriented.

Success will be measured by our ability to build our team and work in transformative partnership with others. We acknowledge that the changes that we imagine will take significant resources and that we won't be able to do it all ourselves. We will focus on doing only what we can do and seeking partnership from others who are aligned and can build out capacity. We are also committed to expanding and supporting staff. As part of this strategic plan, we are imagining new opportunities for existing staff and an expanded team. We recognize that we cannot achieve what we hope to without a well-supported, talented and diverse team. We have the foundations in place, but will be seeking to enhance professional development opportunities, attract new scholars and staff, and maintain retention.

Finally, **success** will be measured by how much progress we are making towards our ultimate goal of reimagining adolescent education:

- What we expect to see...individual scholars, educators, administrators and students understanding and adopting CANDLE's work into their own work.
- What we would like to see...individual scholars, educators, administrators and students integrating CANDLE's work; organizations, districts and distributors adopting CANDLE's approach; schools of education rethinking professional learning; and the public calling for a new approach to adolescent education that is based on CANDLE's science.
- What we would love to see...students who are resilient, civically-minded and succeeding at more than tests; educators and administrators who are building a science-informed school system that is responsive to students' development needs.

¹We affirm neurodiversity as a core expression of human diversity and commit to research and practice that honor the strengths and needs of neurodiverse learners and educators.



USC CANDLE

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