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INTEGRATING LITERACY ACROSS K-12 HEALTH AND PHYSICAL EDUCATION TO SUPPORT WHOLE-CHILD DEVELOPMENT

A Policy Research Brief

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This publication of the James R. Squire Office on Policy Research offers perspectives with implications for policy decisions that affect literacy education, teaching, and learning. Ernest Morrell, professor and director of the University of Notre Dame's Center on Literacy Education (South Bend, Indiana), directs the Squire Office on behalf of NCTE and creates research and reports with the involvement of literacy education leaders in the field.

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This brief offers actionable guidance for those seeking to advance meaningful and effective literacy education (K–12) while thoughtfully utilizing educational systems and resources. Integrating literacy with physical and health education (PEHE) creates opportunities to support English education goals, such as critical literacy, identity development, and meaning-making within and across texts, while promoting students’ physical, social, and emotional well-being.

Too often, school-based literacy and English education are narrowly defined as a set of reading and writing skills, separated from students’ embodied experiences, cultural practices, and oral traditions. Yet research has long shown that literacy is more expansive and includes criticality, multimodal expression, identity formation, oral storytelling, and embodied meaning-making (Moje et al., 2020). Viewed through this broader lens, literacy can bridge academic success, physical well-being, and the advancement of meaningful practices that align with the broader goals of English and literacy education (Johnston & Marttinen, 2023; Pearson et al., 2024).

Despite decades of reform and millions of dollars in educational investment (e.g., No Child Left Behind Act, 2001; Every Student Succeeds Act, 2015; see Schwartz, 2022 for recent legislation and funding implications), traditional school-based literacy and English education can still struggle to support students in ways they find meaningful or connected to their lives, identities, and futures (Morrell, 2015; Mirra & Garcia,

2021). Such misalignment particularly marginalizes multilingual learners, students with learning differences, and youth from racially and culturally diverse backgrounds, whose strengths and ways of knowing are often excluded from dominant literacy frameworks. As concerns about literacy outcomes, learning, and youth mental health intensify (Clark & Teravainen-Goff, 2020; Centers for Disease Control and Prevention, 2024; Hunn et al., 2023), traditional policies continue to focus on standardized outcomes, limiting opportunities to support whole-child development through integrated, interdisciplinary approaches.

Leading Voices: Research and Practice Insights

A growing body of research demonstrates that integrating literacy into PEHE strengthens both academic outcomes and student well-being. These studies highlight how interdisciplinary approaches align with English education’s core goals of meaning-making, critical literacy, and identity development, thus more fully centering students’ lives while also contributing to learning and life outcomes.

Expanding English Education through Interdisciplinary Literacy Integration

When literacy is embedded in movement-based activities, it transforms from a static skill set into a meaning-making process that engages the whole

learner. Matera and Martinez (2024) demonstrated how strategies like reading relays, movement story circles, and interactive literacy stations improve not only vocabulary and comprehension but also memory retention, teamwork, and physical competence. Lindberg's (2025) research further showed how literacy practices, such as labeling movements, providing peer feedback, and engaging in reflective discussion, built academic

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- can be drawn

upon to foster literacy-PE connections, such as collective reading and analysis of PE-based content. These findings point to a model of literacy that is both embodied and academic, aligning directly with English education standards focused on communication, collaboration, and critical thinking.

Wickens and Parker (2023) found that literacy integration in PE can also shift teacher mindset. Initially unsure of how literacy could support physical education goals, teacher candidates in their study came to understand the power of interdisciplinary approaches through hands-on experiences and reflective practice. Their earlier work (2022) demonstrated how using graphic novels, young adult literature, and culturally diverse texts in PE not only

increased student engagement but also fostered discussions directly related to socioemotional learning, such as social belonging and mental health. These studies highlight the transferability and relevance of literacy when it is connected to students' bodies, interests, and identities.

Similarly, studies that integrate children's literature into PE classrooms illustrate how comprehension and collaboration can emerge through multimodal and embodied engagement. Griffo (2021) and Molenda and Bhavnagri (2009) found that when students read narrative texts and physically enact story elements, they not only demonstrated literacy understanding but also strengthened peer relationships. Wickens and Parker (2022) discussed educators' use of children's books in early grades to support phonological awareness and physical activity. These examples challenge the dominance of paper-and-pencil literacy assessments limited to the traditional literacy or English classroom, suggesting that authentic assessment can and should reflect how students communicate in real-world contexts.

Across this body of research, studies demonstrate that literacy integration can expand and deepen the goals of literacy and English education. These practices activate meaning-making, reinforce content knowledge, and promote student agency. Rather than positioning PEHE as separate from academic learning, these findings affirm that literacy learning and development thrive when students are invited to make connections through movement, reflection, and

collaboration across multiple domains. For policymakers and educators, this calls for a reconceptualization of where and how literacy lives in schools, as well as how interdisciplinary partnerships could serve as catalysts for educational transformation.

Critical Literacy as a Foundation for Student Well-Being and Agency

Across decades of research, English education has emphasized literacy as a pathway to critical thinking, agency, and civic participation (Morrell, 2015; Mirra, 2018). Yet these goals often remain abstract in traditional classroom settings. PEHE contexts offer opportunities for making these goals concrete, where students' bodies, identities, and experiences intersect with meaning-making. When literacy practices are embedded into movement, well-being, and health-related topics, students not only sharpen reading and writing skills but also engage with questions of identity, representation, and agency that shape their lives beyond school.

Research demonstrates that PEHE spaces provide unique opportunities for critical literacy development that directly supports student well-being. Lalik and Oliver (2007) showed how PE environments naturally invite critical dialogues about body image, race, and gender. These opportunities are especially powerful when curricula and programs center youth voices and experiences. Degener (2018) and Marttinen et al. (2020) document how identity-focused, literacy-rich approaches

in PE and after-school settings supported girls, particularly racially minoritized youth, in examining cultural narratives and cultivating positive identity development.

Degener's work emphasized how storytelling and activities centered on Black female athletes helped students analyze representation

and build critical thinking skills. Building on this, Marttinen and colleagues used media critique, reflection, and discussion to help girls analyze cultural ideals of the female body. This integration of physical activity and critical literacy not only deepened students' understanding of body image and health but also fostered emotional well-being and sustained engagement.

This student-centered pedagogy is further illustrated in one approach to integrating literacy in a PEHE after-school context (Johnston et al., 2019; Johnston & Marttinen, 2023), where literacy activities evolved over several years from basic journaling to fully embedded reflective, multimodal practices. Students used writing and dialogue to examine their own health experiences and challenge dominant narratives about fitness and wellness, positioning themselves as experts of their lives and learning. Johnston and Marttinen (2023) highlighted the way educators' conceptualization of literacy education significantly affects implementation and student outcomes. Together, these studies demonstrate that

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critical literacy is not a separate add-on but a powerful mechanism for advancing English education goals, particularly when embedded in PEHE contexts that engage students' identities, lived experiences, and collaborative meaning-making.

Aligning Literacy Integration with Broader Policy Goals

Despite growing evidence that interdisciplinary literacy strengthens student engagement, academic outcomes, and well-being, current education policy and assessment continue to silo literacy instruction within the English language arts (ELA) classroom. This narrow approach limits schools' ability to implement research-based, whole-child practices that foster transferable skills, identity development, and meaningful learning across content areas.

Wickens and Parker (2023) illustrate this policy-practice gap through their research with preservice teachers. While teacher candidates initially struggled to see how literacy could support physical education goals, their perspectives shifted significantly through hands-on, integrated training. Similarly, Johnston and colleagues (2019, 2023) found that preservice teachers and educators developed student-centered, reflective pedagogies over time, integrating literacy with physical and health outcomes. However, this growth required sustained support and collaboration from educator leaders who could model integration practices.

These findings underscore that effective

interdisciplinary instruction cannot rely solely on individual initiative or isolated professional development opportunities. While promising strategies exist (Scrabis-Fletcher, 2016; Solomon & Murata, 2008; Wachob, 2014), they often operate outside the reach of state and federal policy mandates. As a result, most students experience fragmented literacy development shaped by test-driven mandates rather than authentic, whole-child pedagogy.

While this brief primarily focuses on the role of English education and literacy policy, it is also important to acknowledge persistent challenges to integration within PEHE contexts. Traditional conceptions of physical education and literacy as opposing domains (one rooted in movement and the other in sedentary, classroom-based activity) have long hindered interdisciplinary collaboration (Wickens & Parker, 2021; Ballinger & Deeney, 2006). Additionally, narrow interpretations of "texts" in literacy practices have contributed to skepticism within PEHE, where teachers rightly advocate for physical education as an academic domain in its own right. Addressing these tensions requires reimagining literacy in more expansive ways, such as recognizing reading as engaging with charts, data, media, critical thinking, and embodied experiences, and ensuring that integration efforts do not compromise the core goals of either field.

Ultimately, bridging the policy gap requires a paradigm shift from literacy as isolated academic performance to literacy as a tool for participation, identity, and connection across the school

day. Yet interdisciplinary literacy is not supplementary; rather, it is central to student engagement, access, and twenty-first century readiness. While related to content area and disciplinary literacy approaches (especially emphasized in

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- upper grades),
- literacy integration
- as described in this
- brief emphasizes
- the embodied,
- relational, and
- meaning-making
- dimensions of
- literacy that unfold
- across disciplines.
- Scholars have

documented the historical tension between content area and disciplinary literacy (Cervetti, 2021; Dunkerly-Bean & Bean, 2016). However, literacy integration builds on and extends these traditions by centering students' lived experiences and treating literacy as a dynamic, multimodal process. Rather than viewing reading and writing as discrete skills to be applied within subject-specific conventions, integrated approaches encourage students to read, write, move, speak, and listen in ways that foster interdisciplinary understanding and whole-child development. Reimagining literacy as a multidimensional, developmental process rather than the sole domain of ELA classrooms invites new opportunities for policy and practice.

Policy Recommendations:

Advancing Integration and Whole-Child Development

The following recommendations are suggested based on the previous research and practice insights.

1. Expand State Literacy Plans to Support Interdisciplinary Integration

State and district literacy plans can be revised to recognize literacy as a shared responsibility across disciplines, explicitly including PEHE as contexts for meaningful, embodied literacy development. Expanding literacy definitions allows for more inclusive, authentic instructional practices that reflect how students learn and communicate across real-world settings.

2. Strengthen Educator Preparation and Development for Integrated Literacy Instruction

Effective integration depends on educator preparation. Teacher education and professional development initiatives must equip all educators, not just secondary English and elementary literacy teachers, with tools and reflective experiences that support literacy instruction across disciplines. Investing in cross-disciplinary training and pedagogical reflection equips educators to create literacy-rich learning environments across diverse contexts.

3. Embed Critical Literacy Practices in Health and Physical Education Standards

PEHE standards should include critical literacy practices that prompt students to examine issues connected to bodies, health, and wellness. These topics are central to students' lived experiences

yet are often excluded from academic instruction. Studies by Lalik and Oliver (2007), Degener (2018), Chandler-Olcott (2017), and Marttinen et al. (2020), show how PEHE spaces support voice, agency, and social awareness through discussion, media analysis, and embodied learning. These practices advance literacy while promoting well-being, cultural competence, and civic readiness.

4. Align Accountability and Funding Structures with Integrated Instructional Goals

Policy frameworks should support interdisciplinary teaching through assessments, funding, and accountability that value holistic, mind-body development. Current systems often discourage innovation by emphasizing narrow outcomes. Revised frameworks should prioritize engagement, critical thinking, and collaboration alongside traditional metrics, ensuring that integration efforts are recognized and supported within broader policy environments.

5. Invest in Pilot Programs and Research-Practice Partnerships

States and districts should initiate pilot programs and research partnerships to model effective literacy integration and study its impact on academic and well-being outcomes. Partnership sites, developed in collaboration with universities and educators, can showcase interdisciplinary models, provide professional learning hubs, and build the evidence base needed for scaled policy adoption. Continued research on student learning, implementation, and teacher development will ensure that policies

reflect diverse classroom realities.

Moving Forward: Literacy Integration as Meaningful, Ongoing Work

The research presented in this brief underscores the need to move beyond fragmented conceptions of literacy and student development. As schools confront ongoing challenges related to learning, assessment, engagement, and well-being, integrated approaches offer a research-informed, contextually

responsive path forward. Policymakers, teacher educators, school leaders, and classroom teachers all have a role to play in expanding what counts as

literacy and where it lives in the school day. Implementation will vary across contexts and requires a system-wide commitment, recognizing that literacy, movement, and meaning-making are not separate priorities. When schools create space for integrated learning that honors students' identities, lived experiences, and full developmental needs, they foster stronger literacy outcomes and more humanizing educational environments. With careful policy design and sustained implementation, we can create learning environments where students read, write, move, and make meaning in ways that foster both academic development and student well-being.

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