



## Concept Note

# Bridging Silos, Building Futures: A Conceptual Model for Integrating SDGs and GCED through Interdisciplinary Performance Tasks

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### ABSTRACT

In the 21<sup>st</sup> century, education must rise to the dual challenge of improving academic outcomes and preparing learners to address complex global issues such as climate change, inequality, and public health. While policies such as DepEd Orders 21, s. 2019 and 8, s. 2015 support authentic and interdisciplinary approaches (Department of Education [DepEd], 2015, 2019), teachers still lack structured, replicable models to integrate Global Citizenship Education (GCED) and Education for Sustainable Development (ESD) into classroom practice. This concept note proposes a conceptual model of Interdisciplinary Performance Tasks (IPTs) designed to operationalize Sustainable Development Goals (SDGs) and GCED in basic education. It is anchored in the published study titled “Interdisciplinary learning through integrated performance tasks: Enhancing academic achievement and advancing Sustainable Development Goals (SDG) in education” which provides empirical evidence of how interdisciplinary approaches enhance both academic outcomes and transformative civic competencies. Drawing on constructivist learning (Dewey, 1938), authentic assessment (Wiggins & McTighe, 2005), and integrative pedagogy for ESD/GCED (Trilling & Fadel, 2009), this model argues that IPTs—structured, SDG-aligned culminating activities—enhance academic performance while fostering civic-mindedness, resilience, and collaboration. The proposed article will outline the

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conceptual framework, present evidence of impact, and discuss implications for scaling the model across different contexts. By transforming classrooms into spaces of active, ethical engagement with real-world problems, IPTs provide a tangible pathway to achieve quality education (SDG 4), sustainable communities (SDG 11), and global partnerships (SDG 17) (United Nations, 2015).

## Introduction

The evolving educational landscape demands more than traditional academic instruction. Education systems must now equip learners to understand and address pressing issues such as environmental degradation, inequality, and health crises. These global realities highlight the urgency of integrating frameworks like Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) (United Nations, 2015). In the Philippines, DepEd Orders 21, s. 2019 and 8, s. 2015 reflect national policy commitments to these goals by promoting performance-based learning and integrative approaches (DepEd, 2015, 2019). However, despite this strong policy foundation, a persistent disconnect remains between theoretical aspirations and classroom implementation.

Many teachers struggle to design interdisciplinary performance tasks that truly connect subject learning with sustainability and global citizenship. Instruction is often fragmented across disciplines, reducing opportunities for learners to engage in complex, real-world problem solving. This gap hinders the effective realization of Sustainable Development Goal 4 (Quality Education) and the broader 2030 Agenda (United Nations, 2015). The IPT conceptual model responds directly to this gap by providing a structured, evidence-based framework for integrating academic learning with GCED and ESD goals.

Despite strong policy frameworks supporting integrative and authentic learning, many classrooms remain siloed, with each subject operating independently. As a result, students may achieve academically within individual disciplines but fail to develop the interdisciplinary thinking, collaboration, and civic responsibility required to address complex sustainability challenges. The lack of structured, scalable, and evidence-informed models for implementing ESD and GCED at the classroom level continues to be a significant barrier to realizing transformative education in practice.

This proposed article aims to:

1. Present a conceptual framework for designing and implementing SDG-aligned Interdisciplinary Performance Tasks (IPTs);

2. Analyze empirical evidence from the published pilot study of Pascual (2025) on the impact of IPTs on academic and socio-emotional learning; and
3. Discuss the implications of the IPT model for making GCED and ESD a lived reality in classrooms, including policy, curriculum design, and teacher professional development.

## Conceptual Framework / Theoretical Lens

The IPT model is grounded in three complementary theoretical perspectives:

1. Constructivist Learning – Dewey (1938) emphasizes that learning is most meaningful when learners actively construct knowledge through experience and social interaction. IPTs engage students in community-based projects that bridge academic content with real-life contexts.
2. Authentic Assessment – Wiggins and McTighe (2005) assert that learning is best demonstrated through performance-based tasks that mirror real-world challenges. IPTs serve as culminating assessments that integrate multiple subject areas and foster deep understanding.
3. Integrative Pedagogy for ESD/GCED – According to Trilling and Fadel (2009), effective ESD/GCED pedagogy synthesizes knowledge from diverse disciplines to address issues like sustainability, civic engagement, and global cooperation. IPTs operationalize this pedagogy by aligning classroom work with SDG themes (e.g., sustainable cities, partnerships, quality education).

## Core Argument / Innovation

The Integrated Performance Task (IPT) model is a replicable mechanism that operationalizes SDGs and GCED in formal education. Its innovation lies in its structured yet adaptable design that allows educators across contexts to tailor implementation without losing conceptual coherence.

- **Culminating Authentic Output:** A single, complex culminating activity (e.g., Sustainable Community Development Proposal) becomes the integrative performance task across multiple subjects (Pascual, 2025).
- **Explicit SDG Alignment:** Each task is directly connected to specific SDGs—primarily SDG 4, SDG 11, and SDG 17 (United Nations, 2015).
- **Forced Collaboration Across Disciplines:** Learners draw knowledge and skills from STEM, humanities, and personal development areas to co-create solutions to community problems.
- **Triangulated Impact:** Assessment goes beyond academic scores to measure collaboration, resilience, leadership, and civic-mindedness (Wiggins & McTighe, 2005).

## Discussion

The implementation of IPTs in the pilot study revealed a variety of challenges and opportunities that illuminate its transformative potential. For many educators, the biggest shift involved embracing collaboration across subject boundaries, which required strategic planning and communication. Rather than viewing interdisciplinary coordination as a burden, participating teachers began to see it as an avenue for professional growth and innovation.

The findings from the published study showed measurable academic improvements. A paired t-test indicated a significant increase in learners' academic performance ( $M = 87.16$  to  $M = 88.93$ ,  $p < .05$ ) after implementing IPTs (Pascual, 2025). More importantly, qualitative data revealed enhanced skills in leadership, teamwork, time management, and civic responsibility. These competencies are foundational for producing globally aware and socially engaged citizens.

Moreover, IPT implementation fostered stronger school-community relationships. Parent and stakeholder participation created authentic contexts for learning, grounding classroom discussions in real-world sustainability challenges. This collaborative dynamic positioned learners as co-creators of community solutions rather than passive recipients of instruction, aligning directly with GCED goals.

Teachers' roles also evolved significantly. From being content deliverers, they became facilitators, coaches, and learning architects. This shift not only elevated student agency but also increased teacher motivation and instructional creativity.

## Implications

The implementation and conceptual refinement of the Interdisciplinary Performance Task (IPT) model hold significant implications that extend beyond classroom instruction. As an innovative framework that bridges academic learning with the Sustainable Development Goals (SDGs) and Global Citizenship Education (GCED), IPTs offer multiple pathways for advancing research, enhancing pedagogical practice, and informing educational policy. These implications are crucial for ensuring the sustainability, scalability, and transformative potential of the model. By strategically embedding IPTs into educational structures, stakeholders—from researchers and teachers to policymakers—can collaboratively build a more inclusive, future-ready education system.

- a. For Research – The proposed framework invites longitudinal and comparative studies to examine IPT impacts across regions, grade levels, and socio-economic contexts. Future research can explore its potential to foster civic engagement and sustainable career pathways.

- b. For Practice – The IPT model serves as a practical instructional blueprint. It offers guidance on co-teaching, interdisciplinary planning, and performance-based assessment, allowing teachers to operationalize SDG and GCED goals more effectively.
- c. For Policy – Institutionalizing IPTs within national education frameworks can deepen the integration of sustainable development principles in basic education, supporting the Philippines’ commitment to Agenda 2030.

## Conclusion

The Interdisciplinary Performance Task (IPT) model stands as a compelling response to the call for transformative education. By bridging academic silos and integrating GCED and ESD principles, IPTs turn classrooms into laboratories of innovation, collaboration, and ethical engagement. Grounded in the published research of Dr. Elymar A. Pascual (2025), this model demonstrates that structured, interdisciplinary learning experiences can simultaneously enhance academic achievement and advance the Sustainable Development Goals. IPTs offer not just a strategy for improving learning outcomes but a roadmap for shaping responsible, active global citizens.

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