Reflections on curriculum and learning imperatives in a changing world

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It has become commonplace to acknowledge that what lies ahead in the twenty-first century remains largely uncertain and unpredictable. Conversations about the future often oscillate between overly optimistic outlooks and pessimistic views, yet they all converge on the idea that change is the only constant in a shifting world. We can no longer approach the future with a sense of seasoned certainty; as we gaze towards the horizon, it's clear that we must reimagine education to adapt to an ever-evolving landscape.

The UNESCO Futures of Education initiative has led this charge, sparking a global conversation on the key role of education in navigating the complexities, uncertainties, and fragilities of our time. The Futures of Education Report (UNESCO, 2021) stands as a bold vision, advocating for a "new social contract for education" and highlighting the long-overlooked question of education's purpose and the significance of continuous learning in adapting to the rapid changes of the twenty-first century.

The subsequent Transforming Education Summit (UN, 2022) made the shape of the future unmistakably clear: education needs to be transformed to respond to a rapidly changing world. The Summit also prompted a re-evaluation of learning and its intricate connections to students, teachers, knowledge, and the world at large. It underscored the imperative for learning to drive curriculum, pedagogy, assessment, and the overall school environment, rather than being treated as a superficial addition.

This heightened focus on learning for an uncertain future is justified, among other factors, by shifts in labor markets, technological revolutions, mobility, migration, climate change, conflicts and wars, equity imperatives, and the global learning crisis.

The Covid-19 pandemic further emphasized the urgency of this focus. School closures resulted in documented declines in student learning, with ongoing learning gaps and a lack of significant catch-up progress several years later. Urgent action is needed to accelerate learning recovery through tailored policy initiatives (Donnelly & Patrinos, 2022; Jakubowski et al., 2024).

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Crafting a positive plan of action, however, is a complex task. Key interventions may include establishing a national long-term vision prioritizing curriculum and learning as strategic levers for holistic, equitable, just, peaceful, and sustainable development; investing in learners from early development through life; recognizing the key role of parents, caregivers, and communities in supporting learning; aligning all elements and levels of education systems to facilitate learning effectively; creating learner-safe and friendly environments with adequate resources and well-prepared teachers; using a solid knowledge base to inform educational practices; integrating curriculum, teaching, and assessment based on a scientific understanding of learning; implementing diagnostic monitoring of learning; and using diverse and reliable tools for evidence collection and measurement of learning outcomes.

This issue compiles articles submitted to *Prospects* without a specific call for a thematic focus. They collectively explore various aspects of learning and its relationship to curriculum, pedagogy, and assessment. While each article approaches the topic differently, they share a common emphasis on the key role of effective curriculum implementation in facilitating learning and ensuring inclusive learning environments where every child can thrive.

Jim Watterston and Yong Zhao ask if shortening the duration of students' classroom and school hours would enhance learning outcomes and teacher retention. How can learning be more flexibly implemented in the post-pandemic landscape? Their article explores the potential for reimagining school attendance and advocates for schools to reassess the imperative and implications of mandating physical presence for students and teachers five days a week.

Luis Crouch explores the potential merits of borrowing ideas from the education systems of South Korea and Japan, especially during their early stages of modern development. These systems offer noteworthy features, such as their exceptional level of learning outcomes equality. However, there is often a misconception, perpetuated even by development agency officials, regarding factors like student stress and reliance on rote learning. By analyzing numerical indicators of equality and stress levels, Crouch presents a nuanced perspective, highlighting that while stress exists in these systems and more emphasis on creativity could be beneficial, they are not outliers compared to countries known for their relaxed or creative approaches to education.

Melvin Freestone, Khalid Khan, and Jon Mason explore the concepts of question sense, inquiry, and inventiveness, which have the potential to enhance individuals' and communities' ability to engage in inquiry-driven learning. They open the door to personalized and tailored inquiries, fueled by a culture of curiosity inherent in us all. This, in turn, fosters imagination, creativity, and inventiveness, leading to enriched learning experiences. Curiosity-driven inquiries, question-based experiences, and strategic inventiveness serve as pillars of a question-sense framework, offering avenues to enhance both inquiry development and curriculum design.

Ying Ma seeks to redefine the concept of educational equality through the lens of Aristotelian *philia*, emphasizing its ethical dimensions and the interconnectedness of diversity and unity. Rooted in mutual respect and admiration, *philia* promotes a fulfilling and meaningful life, necessitating time and familiarity. Recognizing the interconnectedness and diversity inherent in environments conducive to educational equality, her article explores three key aspects of *philia*: acknowledging diversity, enabling dialogues on what constitutes goodness, and understanding the horizontal and vertical facets of educational equality.

Laura B. Perry, Michael Thier, Paul Beach, Ross C. Anderson, Niklas-Max Thoennessen, and Philip Roberts aim to construct a conceptual framework capable of accommodating a broad spectrum of opportunities to learn, extending beyond traditional classroom

settings. Such an inclusive framework has the potential to unite diverse studies on providing opportunities to learn, cultivating synergies, uncovering connections, and shedding light on marginalized forms of learning. Furthermore, it can serve as a tool for holding governments, education authorities, and policymakers accountable for ensuring equitable opportunities and conditions for learning. Their article introduces a three-dimensional conceptual framework of opportunities and conditions to learn (OCL), which encompasses notions of the types and locations of opportunities available, as well as the individuals or entities offering these opportunities, along with the various conditions that can influence them.

Marcos Delprato and Alejandro Farieta examine transition rates in 30 sub-Saharan African (SSA) countries, employing multilevel modeling for transitions from lower secondary to upper secondary, and from upper secondary to post-secondary education. Their study represents the first regional analysis of its kind and introduces a new transition indicator (i.e., transition from secondary to post-secondary education). The article addresses various questions, including drivers of transitions, sources of variation, and the relationship between education system inequality and performance. In 2019, completion rates for lower and upper secondary education in SSA were only 41% and 28%, respectively. Poor transition rates across secondary education stem from individual, household, and community-level factors. A three-level logit model investigates determinants and their variability, revealing that variation in transition rates is greater within countries than between them, with wealth, gender, and early marriage prevalence being key sources of inequality. While the equity-performance trade-off doesn't hold across countries, it does at the community level, suggesting policy measures to address heterogeneity, boost opportunities for disadvantaged groups, and mitigate the impact of community wealth on transition performance.

James Burns examines Ralph Tyler's rationale behind his seminal book on "Basic Principles of Curriculum and Instruction" (Tyler, 1949), which involves predefining measurable learning objectives, organizing instructional experiences accordingly, and assessing students' performance of these predetermined objectives. He argues that this rationale continues to be prevalent in kindergarten through 12th-grade (K-12) schooling and teacher education programs, hindering critical discourse on pressing existential challenges, including threats to educational autonomy. Burns presents a fresh interpretation of Tyler's rationale by drawing parallels with Foucault's "Discipline and Punish" (1995). The author posits that Tyler's approach shares many characteristics with the carceral logics outlined by Foucault in his analysis of disciplinary power. This reassessment of the Tyler rationale holds significant relevance in today's education policy landscape. By prioritizing the achievement of predetermined objectives, Tyler's framework has contributed to the establishment of punitive accountability systems. Moreover, it may inadvertently aid reactionary political forces in fabricating moral crises concerning gender, sexuality, racial history, and civics education.

Monica Mincu argues that, despite varying leadership arrangements and cultures, school principals play a crucial role in creating cohesive environments that foster debate and clarity on equity and equality in curriculum delivery. Additionally, they support structural adaptations and facilitate professional development opportunities at the school level. Mincu integrates multiple research strands, focusing on governance mechanisms and leadership responsibilities within pedagogical and organizational school cultures. Her article advocates for well-articulated school organization, emphasizing collaboration, professional development, and local engagement to promote student-centered teaching practices. The goal is to explore the feasibility of implementing personalized and adaptive teaching strategies across diverse country contexts.

Emma García and M. Najeeb Shafiq examine recent research from high-income countries and earlier studies from middle-income countries, which suggest that access to home computers and the Internet (HCI) may adversely affect students' learning outcomes and well-being. However, their analysis of the Program for International Student Assessment (PISA) 2018 data challenges this notion. Focusing on 15-year-old students in five middle-income countries with limited HCI access—Brazil, Mexico, Morocco, Thailand, and Turkey—they find no significant negative correlation between HCI access and academic performance, self-reported well-being, or resilience scores. Instead, the majority of HCI coefficients indicate positive and statistically significant associations. Thus, the study suggests that HCI access may not necessarily have adverse effects on the academic and psychological outcomes of students in these countries.

Mohammad Reza Sarkar Arani, Yimin Gao, Linfeng Wang, Yoshiaki Shibata, Yanling Lin, Hiroyuki Kuno, and Toshiya Chichibu use a cross-cultural research design as a lens to look deeper into classroom dynamics. They seek to understand how such an approach can uncover the cultural underpinnings of teaching practices and aid educators in reflective practice. Focusing on Chinese lessons as a case study, their research explores the transition from content-centered to competence-focused pedagogy. Drawing on qualitative data from an elementary school science lesson in Beijing, China, and incorporating insights from Japanese educators, their article underscores the significance of teachers' ability to critically reflect on their practice, highlighting the evolution of their professional understanding through didactics, praxis, pedagogy, and theory.

Maria N. Gravani, Bonnie Slade, Maria Brown, Larissa Jõgi, and Carmel Borg present the findings of a qualitative case-study research investigating pedagogical contexts in adult education programs for migrants across Cyprus, Scotland, Malta, and Estonia. The research aims to explore the promotion of Learner-Centered Education (LCE) within a human-rights framework and its role in promoting emancipatory social change. The findings reveal notable disparities in the implementation of LCE, particularly in educational interventions affecting language-learning and assimilation-integration processes among adult migrants. Building on these insights, the article advocates for Emancipatory Learner-Centered Education (ELCE), proposing a pedagogical approach that transcends mere course adaptations. ELCE seeks to empower migrants through consciousness-raising and confidence-building activities, while facilitating collaborative action between migrants and adult educators.

Marleen Adriana Westermeyer-Jaramillo argues that the Covid-19 pandemic prompted significant changes in education systems worldwide, including in Chile, where ministerial authorities placed emphasis on certain learning objectives within the school curriculum over others. Her article explores the underlying social functions shaping the prioritization of the natural sciences curriculum, and it identifies the presence of functions such as social consensus, social stratification, technical-modern development, human capital formation, and care for children and youths. Given the lack of curriculum changes addressing current issues in science education, the article suggests redefining the social functions of science education and notices an increase in social stratification associated with education rather than a decrease.

Orie Sasaki, Aki Yonehara, and Yuto Kitamura examine the impact of the whole school approach (WSA) on teachers' practices related to education for sustainable development (ESD) in Japan. Their article seeks to understand how school organizations that promote WSA influence teachers' ESD practices in a multifaceted and hierarchical manner. Conducting a multilevel analysis involving 683 elementary and middle school teachers from ESD-promoting schools, the authors found that the actual working environment may play a more significant role than the school's management system in facilitating individual

teachers' implementation of ESD. Furthermore, they found that school-level WSA notably contributed to the promotion of ESD. Their research underscores the importance of establishing conducive environmental conditions, such as the school board and principals ensuring basic necessities (e.g., working hours, teaching materials, and an environment fostering teacher autonomy), to provide a sense of security and ownership for teachers interested in ESD practices.

Nouf Abdullah AlKaabi, Najlaa Al-Maadeed, Michael H. Romanowski, and Abdellatif Sellami examine PISA within Qatar's educational context, evaluating its objectives, limitations, and the crucial roles of teachers and assessments. Globally, PISA serves as a valid and reliable benchmark for assessing student performance and shaping educational policies. Since 2001, Qatar has pursued substantial educational reforms, aiming to improve student achievement. However, despite notable progress, Qatar's performance in PISA continues to lag behind. The authors argue that a high-quality education, which enhances learning and student achievement, indirectly benefits PISA scores. A comparative analysis with high-achieving nations provides insights into Qatar's advancements in these areas, emphasizing important factors for policy formulation and offering recommendations for policymakers.

Willem van de Waal, Maxwell Agyei Ashon, and John P. Comings discuss the Strategic Approach to Girls' Education (STAGE) project, which was developed to assist marginalized out-of-school girls in northern regions of Ghana in entering and excelling in primary school. The project was based on the Complementary Basic Education (CBE) policy of the Government of Ghana, which aims to identify out-of-school children and create the motivation and community support needed for them to enter or reenter primary school and complete their basic education. The article reviews pertinent literature that shaped STAGE's design, outlines the intervention, evaluates its impact on participants, and proposes a model for replicating and adapting this intervention in Ghana and beyond.

In essence, this issue of *Prospects* not only bears witness to the education challenges of the present but also envisions a future that compels us to take decisive actions today. At its core, curriculum and learning are central to the future of education and work, ensuring the development and transfer of competences crucial for thriving in an ever-changing world.

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