**A CONCEPTUAL FRAMEWORK FOR
EDUCATION RESEARCH IN CONFLICT AND PROTRACTED CRISIS (ERICC)**

Ha Yeon Kim[1,2], Carly Tubbs Dolan[2], J. Lawrence Aber[1,2]
[1]ERICC Consortium; [2]New York University Global TIES for Children

Note. This working paper is accompanied by an interactive graph, which is designed for self-guided exploration of the ERICC conceptual framework. The interactive ERICC conceptual framework can be accessed at: https://www.nyuglobaltiesforchildren.com/ericc

About ERICC

Education Research in Conflict and Protracted Crisis (ERICC) Research Programme Consortium is a global research and learning partnership that strives to transform education policy and practice in conflict and protracted crisis around the world, through building a global hub for rigorous, context-relevant and actionable evidence base. ERICC seeks to identify the most effective approaches for improving access, quality, and continuity of education to support sustainable and coherent education systems and holistic learning and development of children in conflict and crisis. ERICC aims to bridge research, practice, and policy with accessible and actionable knowledge — at local, national, regional and global levels — through co-construction of research and collaborative partnerships.

ERICC is led by the International Rescue Committee (IRC) with NYU's Global TIES for Children research leadership and expert partners include Centre for Lebanese Studies, Common Heritage Foundation, Forcier Consulting, ODI, Osman Consulting, and Queen Rania Foundation; and is supported by UK Aid. Countries in focus include Bangladesh, Jordan, Lebanon, Myanmar, Nigeria, South Sudan and Syria.

Acknowledgment

Disclaimer

Suggested citation

Kim, H. Y., Tubbs Dolan, C., Aber, J. L. (October 2022). A Conceptual Framework for Education Research in Conflict and Protracted Crisis (ERICC). ERICC Working Paper No.1. https://doi.org/10.6084/m9.figshare.21438093

**A CONCEPTUAL FRAMEWORK FOR
EDUCATION RESEARCH IN CONFLICT AND PROTRACTED CRISIS (ERICC)**

Children living in contexts of conflict and/or protracted crisis are among the most developmentally and educationally disadvantaged in the world (UNESCO, 2015). An estimated 222 million crisis-affected children and adolescents are in need of urgent education support, and as many as 78.2 million of those children are out of school (Education Cannot Wait, 2022).

In recent years, there has been growing momentum and commitment from global and national stakeholders to reduce these developmental and educational disadvantages, as a part of efforts to meet Sustainable Development Goal 4: Quality Education (United Nations Department of Economic and Social Affairs (UNDESA)). Civil society organizations, governments, local communities, and funders are mobilizing their actions in conflict and protracted crisis settings around the globe, implementing a wide variety of approaches.

To date, however, the field continues to suffer from the "overwhelming lack of evidence" about how children learn and develop in these contexts and about how to effectively support them (Masten & Narayan, 2012; UNESCO, 2015). While evidence from rigorous research is beginning to emerge (see, e.g., Aber et al., 2017, 2021; Arakelyan et al., 2021; Bakrania et al., 2021; Burde et al., 2019; Deitz et al., 2021; Lasater et al., 2022), the challenges of conducting rigorous research in conflict and protracted crisis settings are numerous. These include access and security challenges of data collection, limited capacity and resources for research in the contexts, and coordination challenges across stakeholders and implementers for evidence generation and use—to name a few (Bakrania et al., 2021).

In addition, simply generating *more* evidence on what works is not enough to drive "bold" policy and practice reform. The diversity of approaches to research and programming, largely designed and implemented within disciplinary silos, has resulted in a small body of fragmented evidence in contexts of conflict and protracted crisis thus far. Both the scarcity of research conducted in the contexts of conflict and protracted crisis, and the variability in research foci, disciplinary perspectives, and methods in the existing research make it challenging to organize existing evidence across multiple sectors and disciplines into a systematic evidence base. Such a fragmented approach, in turn, makes it difficult to draw actionable recommendations to inform systematic program and policy decisions that can support and transform the struggling education systems in conflict and protracted crisis contexts.

This situation calls for a systematic conceptual framework that translates individual studies into an interconnected and comprehensive body of knowledge on what drives meaningful change in education systems and child outcomes in conflict and protracted crisis contexts. This working paper introduces a conceptual framework developed for the Education Research in Conflict and Protracted Crisis (ERICC) Programme. The ERICC conceptual framework is designed to serve the following three purposes:

  A. **Evidence organizing:** To create a genuinely multi-disciplinary frame that allows us to organize extant research that enables synthesizing existing evidence, locating evidence gaps, identifying intervention targets, and building theory of change for policy and programming in education in conflict and protracted crisis;
  B. **Evidence building:** To identify new research foci, and questions within the framework based on limits and gaps in the existing research, and also to inform the revision of the framework through this process;
  C. **Evidence-based decision-making:** To provide a unified vision that allows researchers, practitioners, policymakers, and stakeholders to make effective

decisions for research, programming, policy, and investment to improve children's learning and development in crisis and conflict-affected contexts.

The conceptual framework is intended to evolve and be revised and refined through engagement with various experts, stakeholders, and research partners, as well as application and use in ongoing research. The current version of the conceptual framework (version 2.0) was iteratively revised and updated from the earlier versions (Version 1.0: November 2020; Version 1.1 April 2022) based on the feedback from the ERICC in-country research teams who are leading the co-construction of the research agenda with stakeholders in the local context, as well as through consultations and engagement with experts from a wide range of disciplines who are interested in supporting children's learning, development, and wellbeing in conflict and crisis-affected contexts.

In the following sections, we describe (1) the scope and (2) key mechanisms of the ERICC conceptual framework, and describe (3) pathways of learning and development captured in the framework. In addition, we provide (4) suggestions for use of the framework and (5) the next steps for future revision through sustained engagement and input from various stakeholders and expert informants.

1. Scope of the ERICC conceptual framework

Target settings. The ERICC conceptual framework focuses on identifying and explaining education systems and processes that affect children's outcomes in conflict and protracted crisis settings, where the state's function is disrupted and has become unsustainable to maintain and operate existing education systems. The conflict and crisis of interest may include, but are not limited to, interstate and intrastate conflicts, contested governance and civil strife, climate-related disasters, pandemic, and public health crises, or other humanitarian emergencies. As refugees and internally displaced people migrate to neighboring countries and states, such crises also affect the host communities' capacity to provide quality education provision for all. The impacts of these crises on education systems may vary greatly by the condition of the crises and their impacts on the state's capacity, such as level of state legitimacy, governance structure, level of violence and criminality, source of crisis (internal vs. external), and so on. In many cases, states may suffer from multiple crises compounded over time. For example, Lebanon, a host country harboring the highest per capita refugee population in the world, has suffered from a long history of civil war and armed conflict, multiple waves of refugee influx from neighboring countries, and recent political unrest and economic collapse, exacerbated by COVID-19 pandemic. Such compounded and protracted crises can affect the state's function to maintain and operate systems for education provision in different ways than the acute crisis and its immediate, drastic impacts—as we have recently observed in Ukraine. Understanding and supporting the education systems and outcomes throughout the different stages of crises—from emerging crises to protracted and compounded ones—are of interest to the ERICC framework.

Terms such as "education in (humanitarian) crises" and "education in emergencies" are used interchangeably to refer to the rapidly emerging subfield that focuses on supporting education systems in countries affected by conflict and disaster-related crises (Burde et al., 2015). Given that humanitarian crises often endure many years, and education provision in such contexts needs sustainable solutions, we explicitly specify contexts of protracted crisis as key target settings of interest, instead of emphasizing the rapid response and temporary service provision that is implied in the traditional framing of "education in emergencies".

Target Population. The ERICC conceptual framework focuses on explaining children's experience of educational systems and processes in the contexts of conflict and protracted crisis. Specifically, it is meant to capture the experience of refugee and internally displaced

children, as well as children in both host communities and communities affected by ongoing and protracted crises as defined above. Its primary focus is on school-aged children served by formal school systems (primary and secondary) in the context: typically, from 5 or 6 years to 17 or 18 years of age. In most countries, institutional/systematic formal education policies and systems exist for this age range and education is recognized as a basic right of children. While education matters for all ages, there are different demands, priorities, and systems involved in very young children's and adults' learning—which are beyond the scope of this framework.

Target domains. As mentioned above, the primary goal of the ERICC conceptual framework is to help explain and generate evidence to improve education systems, policies, and programs that support children's outcomes. Therefore, we prioritize those education processes (see drivers of learning below) that we consider being primary mechanisms of learning and development of interest, rather than identifying all processes and mechanisms that affect children's outcomes. However, we acknowledge and actively incorporate systems and processes of other domains (e.g., health, nutrition, shelter, livelihood, etc.) that affect and interact with education systems and processes at both policy- and local-systems levels whenever possible.

THEORETICAL FOUNDATION FOR THE ERICC CONCEPTUAL FRAMEWORK

The organization of our conceptual framework is informed by an interrelated set of metatheories from multiple disciplines, most notably coherence for learning framework (Pritchett, 2015), systems framework for understanding social settings (Tseng & Seidman, 2007), dynamic systems theory (Thelen, 1996), developmental contextualism (Cicchetti & Aber, 1998; Lerner, 1996), and bioecological developmental theory (Bronfenbrenner & Morris, 1998, 2007). These metatheories emphasize that understanding human development requires identifying the relationships among many features and processes of complex, dynamic systems. Human development consists of systems (e.g., cognitive, social emotional, behavioral domains of development) of systems (e.g., whole individual persons) unfolding over time (e.g., across the life cycle) and within and across contexts that are themselves systems (e.g., from micro and meso contexts such as households, school and classrooms, and communities; to exo-contexts such as institutions and educational stakeholders; to macro contexts such as changing migration dynamics and social norms due to conflict and pandemic). We conceptualize that individuals' access to, and quality, and continuity of these contexts across ecological levels, as well as the coherence and alignment between the systems, are the key drivers of change in human development and learning.

---

2. **Key Mechanisms of the ERICC Framework**

The ERICC conceptual framework is built around identifying, examining, and supporting four drivers of learning and development in contexts of conflict and protracted crisis.

Drivers of Learning and Development

The drivers of learning and development (access, quality, continuity, and coherence) defined here are necessary for driving improvements in equity and achievement in holistic learning and developmental outcomes that are vital for children in conflict and protracted crisis settings to fully engage in economic, political, and social activities in modern society—

such as foundational literacy and numeracy, as well as, social and emotional learning outcomes and physical and mental health. These drivers are also critical to assess how and in what contexts programs and policies are working.

Access. Programs and policies will improve children's holistic learning and development to the extent that they improve access to education—within schools and classrooms, as well as in households and communities (especially in distance learning conditions or other home- or community-based learning). Access to education can not only provide safe physical spaces for children to learn and develop, but also provide psychosocial support and safety for children who are affected by conflict and crisis, mitigating the immediate impacts of trauma and disruption. While often equated with school enrolment rate, access goes beyond that (Kabay, 2021). We here define access as both **awareness of, and the opportunity and capacity to participate in educational experiences**.

Quality. Access is necessary but not sufficient to improve children's holistic learning outcomes without assurance of quality. While the quality of education is often measured by and equated with *"learning outcomes"*—often defined as academic performance, this framing only focuses on outcomes of the quality of education. Such framing does not specify what quality actually is, mechanisms and/or processes (i.e., children's educational experience) that can be examined and improved to achieve holistic learning outcomes.

In our conceptual framework, we define quality as the **quality of the resources and support** within classrooms/schools, households, and communities (e.g., human resources such as teacher skills as well as economic, the quality of instructional or social-emotional supports, and physical resources/constraints like school fees, classroom structure, remote learning device) – **and of the relationships, norms, practices, and interactions** (e.g., teacher-student relationships, caregiver expectation for and involvement in child's education) that are necessary to safeguard and improve children's holistic learning, development, and wellbeing (Tseng & Seidman, 2007).

Continuity. Brief, sporadic access to learning environments, even if high quality, is insufficient for children to learn and develop. A glaring gap in research on education in crisis contexts is how to promote continuous learning over the school-age years among displaced, highly mobile, and/or marginalized populations. We specify continuity of learning as one of the drivers and not just a dimension of access; and define it as **sustained exposure to education that allows progression in both learning and grade/school transition**. Continuity is critical to overcoming the challenges of disjointed programming, frequent disruption and school closures, attendance challenges, program and grade repetition, and dropouts prevalent in crisis contexts.

Coherence for Access, Quality, and Continuity. A child's access to education and the quality and continuity of their educational experience is determined by factors at the local systems level (school, community, and household factors), and also by factors at the policy systems level (broader policy systems and stakeholders). These systems and stakeholders involved in education may or may not align in goals, procedures, resource arrangements, and incentives to achieve access, quality, and continuity of education. For example, a lack of coordination in budget allocation between government institutions at the policy systems level, or a disagreement over the objectives of education between schools and families at the local systems level, may hinder effective decision-making and education systems operation to improve children's access to education. Such (mis)alignment and (in)coherence in crisis contexts is inherently more complex and challenging given that multiple stakeholders with different goals and incentives are involved in tenuous and unpredictable crisis situations where the priorities and needs are ever-changing and often difficult to align. However, without coherence and alignment across different systems and stakeholders in education systems toward a common goal of improving access, quality, and continuity,

effective and equitable education in crisis settings may not be achievable. Improving research on education in crisis contexts will require understanding "education systems coherence" for access, quality, and continuity in crisis contexts at both the policy systems level and the local systems level.

3. Pathways of Learning and Development

Building a robust evidence base that is usable and actionable to support children's achievement and equity in academic, social-emotional, and physical outcomes in conflict and protracted crisis contexts needs a framework that can organize how these *drivers of children's learning and development* —access, quality, continuity, and coherence—work in real life. From the policy to local systems levels, different pathways, relationships, and influences are at work, affecting how children learn and develop. The conceptual framework we present here is our attempt to describe and identify different pathways, educational systems, and processes that we can target to improve children's access, quality, and continuity of learning and development and coherence of education systems to support these goals in conflict and protracted contexts.

The conceptual framework (Figure 1) is organized according to two dimensions:

- **Top to bottom: Levels of education systems context.** The upper half of the figure represents the policy systems level, where educational policy, budgeting and financing, and accountability systems decisions are made, implemented, and managed. These policy systems operations affect and are affected by the local systems represented in the lower half of the figure. The local systems level is where children's educational experiences and interactions occur, including in households, schools/classrooms, and communities within which children live and interact affecting their holistic learning, development, and wellbeing.

- **Left to right: Pathways of change.** The arrows between the boxes represent directions of influence and change. The grey boxes on the left side are the **pre-existing conditions** of systems at each level; and at the center are the central foci of our framework – the **drivers of learning and development (**mechanisms**) –** that catalyze change in education systems and child **outcomes** (boxes on the right). All of these conditions, mechanisms, and outcomes at both levels of education systems are affected by the changes and challenges due to conflict and crisis (far left).
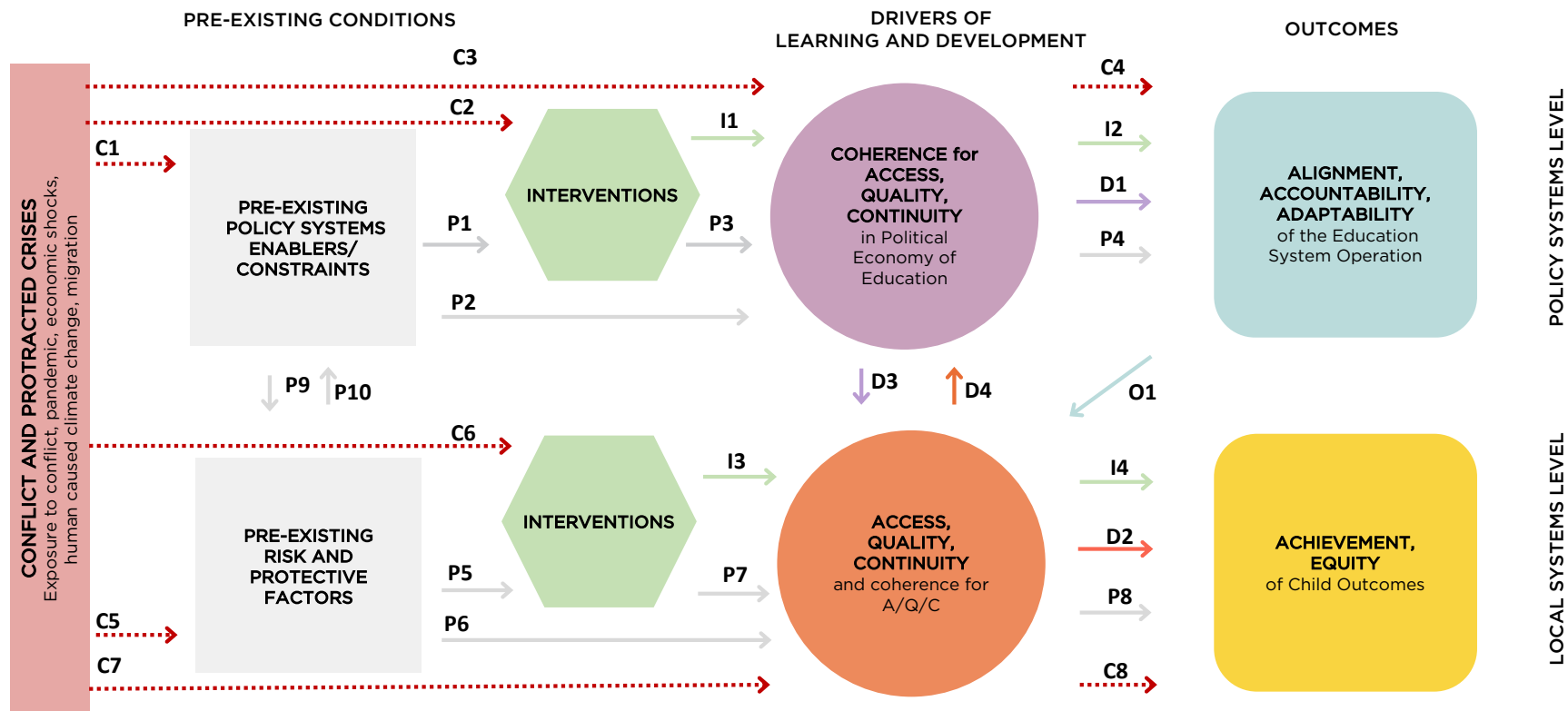
PRE-EXISTING CONDITIONS

DRIVERS OF
LEARNING AND DEVELOPMENT

OUTCOMES

POLICY SYSTEMS LEVEL

LOCAL SYSTEMS LEVEL

CONFLICT AND PROTRACTED CRISES
Exposure to conflict, pandemic, economic shocks, human caused climate change, migration

PRE-EXISTING POLICY SYSTEMS ENABLERS/ CONSTRAINTS

INTERVENTIONS

COHERENCE for ACCESS, QUALITY, CONTINUITY in Political Economy of Education

ALIGNMENT, ACCOUNTABILITY, ADAPTABILITY of the Education System Operation

PRE-EXISTING RISK AND PROTECTIVE FACTORS

INTERVENTIONS

ACCESS, QUALITY, CONTINUITY and coherence for A/Q/C

ACHIEVEMENT, EQUITY of Child Outcomes

C1, C2, C3, C4, C5, C6, C7, C8, I1, I2, I3, I4, D1, D2, D3, D4, O1, P1, P2, P3, P4, P5, P6, P7, P8, P9, P10

Figure 1. Conceptual Framework for Education Research in Conflict and Protracted Crisis

WHAT DO THESE ARROWS MEAN?
The arrows in this figure represent the directions and pathways of influence. The colors of the arrows are the colors of the arrows' starting points. For example, the grey arrow pointing at the yellow box (Path P8) means the influence of "pre-existing risk and protective factors" to "achievement, equity of child outcomes". The first letter of the arrow labels also indicates its origin, C for conflict, P for pre-existing conditions, I for intervention, D for drivers of learning and development and O for outcomes. See path index in Appendix A.

A. Pathways at the policy systems level

The pathways at the policy systems level (represented in the upper half of the conceptual framework) focus on describing how the actors, systems, and stakeholders involved in policy decisions on access, quality, and continuity of education, which in turn, affect children's educational experiences and their learning and development at the local level. In the context of conflict and protracted crises, the actors involved in the policy systems level may vary greatly, depending on the context and conditions of the crises, and evolve over time. In general, governing authorities, including national and local governments and/or non-state authorities, and the formal and informal schooling systems installed and run by the governing authorities are the primary actors involved in the policy decisions regarding education provision in most contexts. However, in the context of conflict and protracted crises where humanitarian aid and financial support are activated, the influence, decisions, and actions of global actors, and their coordination and interactions with the governing authorities may play important roles in policy systems operations (Tubbs Dolan, 2017). These global actors may include international donors, multilateral and bilateral aid agencies, and other humanitarian aid organizations (e.g., UN agencies, private donors, international development agencies, humanitarian clusters). In addition, international and local NGOs supporting the provision of formal and informal education at the local systems level are also involved in policy systems level operations and coordination. It is important to note, the policy systems actors and operations in conflict- and crisis-affected contexts interact with and are affected by the broader contexts, including historic and contemporary economic, political, and cultural contexts and the political economy of humanitarian aid politics at the global level (Novelli et al., 2019). The **coherence** and alignment among these actors are the central mechanisms of the education system operations for providing access, quality, and continuity of education at the local systems level.

The first box at the policy systems level (in grey) represents ***pre-existing conditions of policy systems that enable or constrain*** effective policy decision-making processes and implementation. These include available resources and infrastructure, the landscape of the political economy, and accountability and data systems. The *effect of conflict and crisis changes these conditions* (Path C1); for example, an influx of refugees to schools may strain the resources available to provide education to all children; and additional actors such as international donors and NGOs may enter the political economy landscape; and accountability systems need to shift to accommodate the refugee children entering different schools and systems.

These pre-existing policy systems' enablers and constraints affect the **coherence of the policy systems**' decisions and operations **to provide access, quality, and continuity** of education to children (Path P2). We consider coherence in the political economy of education systems as a primary driver of learning at the policy systems level (Figure 2; purple box in Figure 1). The policy-level education systems, authorities, and stakeholders may or may not be aligned in goals, procedures, resource arrangement, and incentives. This incoherence in turn, affects the provision of system-wide policies, financing, and accountability mechanisms to achieve access, quality, and continuity of education at the local level. The condition in Cox's Bazar is an example to illustrate the challenges of incoherence. After five years of the Rohingya refugee crisis, political and security dynamics surrounding the stateless Rohingya refugees in Bangladesh remain unstable and their lives are marked by struggle. Amid vocal demands by the Rohingya to be able to return to their home villages, lack of political will in Myanmar, pressure to uphold refugee rights, and the need to maintain safety and adequate infrastructure within the camps despite a persistent funding shortage, actors involved in the response face increasing challenges around sustainable solutions for Rohingya populations. With the governance and decision-making mechanism remaining unclear, restrictive, and ad-hoc, the policies around education provision and its implementation, e.g., which curriculum to implement in which language,

have been subjected to political whim and compromises, resulting in multiple abrupt and drastic changes, restrictions, and regulations that did not always serve the population's needs (Hoque & Tasnia, 2022). As a result, many Rohingya children have been deprived of access to education, and even when they have access, it is to informal education without certification or accreditation in a language that they are not familiar with, failing to provide access, quality, and continuity of education for the majority of Rohingya children (Human Rights Watch, 2019; UNICEF, 2022).
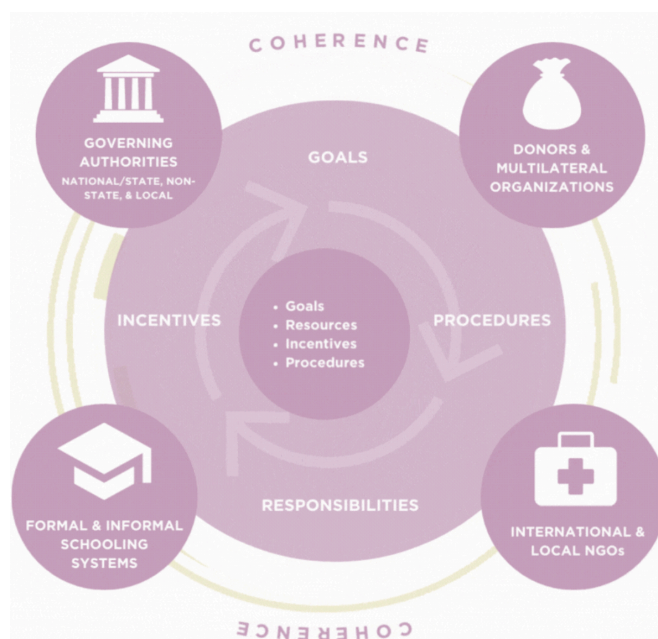

Figure 2. Drivers of Learning and Development in the Policy Systems Level: Coherence for Access, Quality, and Continuity in Political Economy of Education.

Conflict and crisis can drastically change political economy landscapes and conditions, often further straining relationships and creating misalignments between stakeholders. This shift can lead to incoherence in the system for achieving access, quality, and continuity (Path C3). Systems that were already fragile prior to conflict and crisis—for example, those that had limited resources, strained relationships between the stakeholders, and opaque governance and information flow—are more likely to be affected by the crisis than the systems that were previously stable and well-aligned (Path P2).

Such incoherent systems then can decrease **alignment, accountability, and adaptability** of the policy, budget and financing, and data-based accountability mechanisms (Path D1), resulting in reduced effectiveness of the **education system operations** to achieve access, quality, and continuity (light blue box).

For example, international donors may prioritize increasing access for children unable to attend schools in regions affected by conflict and crisis, and are interested in investing in building a distance learning platform, based on an existing national curriculum; while the country's Ministry of Education may see reform of the outdated national curriculum as the more urgent priority to improve quality of education for all, but they lack education budget to do so. In this case, the goals of the donors (access) and the Ministry (quality) are not aligned. If there are no systems and processes in place to coordinate across the donors and the Ministry, this will lead to incoherence in goals and resource allocation (Path P2), and in turn, resulting inefficient operation and implementations to achieve access, quality, and continuity of education (Path D1). That is, donors may allocate funding for a distance learning platform providing an outdated national curriculum, which would lead to expanding

access to low-quality programming that may not improve children's outcomes; while the Ministry is unable to secure the fund for the curriculum reform, forced to continue low-quality education provision for all children (Path D3, O1).

B. Pathways at the local systems level

The pathways at the local systems level (represented in the lower half of the conceptual framework) focus on describing how the schools/classrooms, households, and communities play a role in **access, quality, and continuity of education** and affect children's learning and development in the presence of conflict and crisis. Children in this framework are also considered active agents of their learning and development, engaging and interacting with the local systems, enabled/constrained by their own cognitive, social and emotional, and behavioral processes and skills.

The first box at the local systems level (in light grey) represents ***pre-existing risk and protective factors*** that deter or facilitate children's access, quality, and continuity of educational experiences. Households, schools and classrooms, and communities have different human capacities (e.g., parents' education level, teachers' knowledge and pedagogical skills), resources (e.g., curricular materials, household income, school budget, community resources), and arrangements (e.g., allocation of budget and time for education based on school/household priority) that determine the access, quality, and continuity of education children experience. Children's own characteristics (gender, disability, marginalized group membership), capacities and skills (e.g., learning level, social skills), and relationships (e.g., relationships with teachers, parents, community members) can also present barriers to engaging in their own learning and development, or could be an asset to improve their access to and quality and continuity of education.

Conflict and crisis conditions can directly affect these conditions (Path C5)*. For example, the COVID-19 pandemic has caused many households to lose income, or even family members; schools were closed and the transition to remote learning required rearrangement of budget, learning time, and priorities; and different learning environments and modalities, stressors, and anxieties may have compromised children's cognitive and social-emotional capacities to engage in the learning process. Relationships between children and local systems—with parents, teachers, and community members—were also strained, as were relationships between local systems (e.g., schools-parents; households-communities).
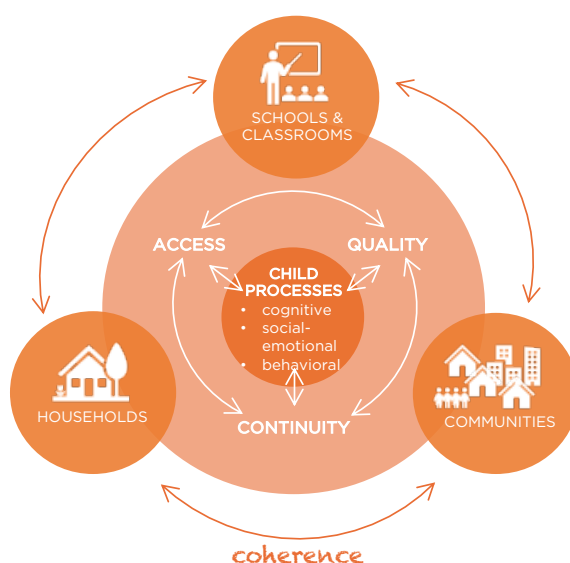

Figure 3. Drivers of Learning and Development in the Local Systems Level: Access, Quality, Continuity of Education, and Coherence among local systems

These pre-existing risk and protective factors, and the impacts of conflict and crisis on these factors, affect children's educational experience through their interaction with local systems (Paths P6, C7). We consider the **access, quality, and continuity of education** available **in local systems—community, household, and schools/ classrooms**—to be the key drivers of the learning and development of children at the local systems level (Figure 3, Orange box in Figure 1). As children interact with these local systems, their own capacity and skills (e.g., cognitive, social, emotional, and behavioral competence and challenges) also play a role in determining their experience of access, quality, and continuity of education. The relationships and **coherence** across these local systems in providing educational experiences and the child are also important factors and mechanisms contributing to access, quality, and continuity.

Continuing with the example of the COVID-19 pandemic, the changing conditions of local systems described above resulted in complete/partial loss of access to schooling for many children, due to school closures, dropouts, and lack of access to remote learning devices and materials (Path C7). For those who maintained access to education, the quality of education deteriorated due to the limitations of remote learning, limited time for educators to prepare for remote learning, many of whom had little or no training on such instructional methods and modalities, lack of in-person learning and social interaction opportunities, and attentional challenges due to stress and distraction in a remote learning environment. Continuity of education was frequently disrupted due to ever-changing public health measures, quarantine and testing regiments, and constantly changing in-person/hybrid/remote schooling access, even in the best of conditions. In addition, the coherence of the local systems can also be affected by crises. For instance, some parents wanted schools to resume in-person learning—to prevent learning loss and/or for them to be able to work during school hours—and objected to schools' decisions and community consensus to remain closed; other parents prioritized their children's and the public's health, and wanted schools to remain closed. The deterioration in access, quality, and continuity is more likely to have the greatest effects on households, schools and classrooms, communities, and children that are more marginalized and disadvantaged prior to the conflict and crisis (Path P6).

Compromised educational access, quality, and continuity, as well as the incoherence among local systems supporting educational access, quality, and continuity, affect **achievement and equity in children's** outcomes (Path D2). Children's educational experiences not only affect children's **academic** and **social and emotional learning,** as well as **physical and mental health outcomes** (yellow box). We specify both achievement and equity of these child outcomes as the ultimate goals of supporting education in conflicts and protracted crises, where marginalized and vulnerable children and communities (risk factors) are often the most affected. To achieve these ultimate goals of education, it is imperative to identify where and how to intervene.

C. *Where and how do interventions come in?*

This understanding of the inter-connected paths of change from pre-existing conditions to current conditions can help identify potential solutions to support the policy and local level education systems to effectively adapt and react in the face of a crisis. We propose that interventions are the most effective when they **target and improve the drivers of learning and development**: access, quality, and continuity, at the local level, and coherence of the systems for access/quality/continuity at the policy level.

At the policy systems level, such interventions should improve the coherence of the targeted education systems (e.g., formal education systems and involved stakeholders; systems and stakeholders involved in teacher training and recruitment; informal education systems) to

achieve specific access, quality, and/or continuity goals (Path I1) that determine policy decisions and operations (Path I2). Increased funding, provision of infrastructure and training, or improved data systems can improve the capacity of one actor or one sector of actors. However, if the overall system is incoherent and unaligned across different actors involved in policy decisions and operations, isolated capacity improvement is not likely to result in effective operations of education policy systems as a whole. For example, supporting government agencies to build the capacity to implement and coordinate data, monitor and evaluate systems, and establish cross-agency accountability mechanisms can promote the use of evidence-based policy decisions. This type of intervention must be accompanied by strategies to improve effective coordination based on an in-depth understanding of the degree of alignment of different stakeholders' policy and implementation priorities.

At the local systems level, interventions should focus on improving children's access to, and quality and continuity of education within each of the local systems (households, schools and classrooms, communities) and coherence among them (Path I3) that can lead to achievement and equity of children's outcomes (Path I4). To do so effectively, it is necessary to (a) identify malleable and relevant target systems and drivers of learning for improving child outcomes, with considerations for vulnerable populations (Path P5: e.g., additional instructional time in schools provides more opportunity to access education, especially for girls); and (b) identify and/or design programs and practices that can move the targeted drivers effectively and with good value for money (e.g., providing after-school tutoring programming can increase the instructional time and therefore access to education). The program can be more effective, if the intervention considers coordinated and coherent support and communication across local systems (e.g., caregivers and the community are aware of the need for additional instructional time, and informed of and involved in the process of program design and implementation).

Interventions at both levels should be selected, designed, and adapted to reflect and meet the demands of different types of conflict and crisis, to ensure goals, target mechanisms and systems, and implementation strategies are aligned and adequate to meet the needs given the challenges and conditions of the crisis (Paths C2, C6). It is also important to note the implementation and effectiveness of the interventions may be affected by evolving crisis conditions and unpredictability. Therefore, interventions in the context of conflict and crisis need to plan for such uncertainties and adapt to changing situations as needed. In addition, given the heightened risks of harm in such contexts, interventions should consider pre-existing policy constraints (e.g., fragmented policy systems) and risk factors at the local level (e.g., girls, marginalized groups, communities, and households in extreme poverty) while leveraging pre-existing policy enablers and protective factors (Paths P1, P5). It is also important to monitor and examine potential variability in intervention impacts to ensure equity of outcomes, as well as achievement (Paths P3 and I2; P7 and I4).

D. Pathways of Influence Between Policy and Local Systems Levels

The ERICC framework also specifies pathways of influence between policy and local systems levels. The relationships, mechanisms, and interactions between the levels are by far the least understood and examined in education research, as they were traditionally studied separately by different disciplinary traditions (e.g., political science's emphasis is on the policy systems level; and psychology and intervention science generally focus on the local level).

The most prominent path between the levels is path O1, education system operation (outcome at the policy systems level) affecting the access, quality, and continuity of education in schools/classrooms, households, and communities in local systems. Alignment, accountability, and adaptability of the policy implementation, budget and financing, and data-

ERICC Working Paper No. 1

based accountability mechanisms can directly affect local systems functioning and their capacity to provide access, quality, and continuity of educational experience for children. For example, policy reform to provide universal primary education to all children—if sufficiently financed, well-implemented and managed, and can be adapted to support a variety of formal schooling institutions and systems, as well as the needs of various communities and populations—can greatly improve children's access to education (e.g., "management" relationship in the RISE framework: Kaffenberger & Spivack, 2022)

Other types of interactions between policy- and local-systems level need and deserve more specification and research. In the ERICC framework, we specify the bidirectional relationships between pre-existing conditions (Paths P9, P10) and between drivers of learning and development (Paths D3, D4) at two levels. Specifically, pre-existing policy systems constraints and enablers impact local systems' pre-existing conditions (Path P9). For example, a limited education budget at the policy-systems level results in a lack of school resources and families' and communities' lack of confidence in schooling and education at the local level. In turn, such conditions in local systems can further strain the conditions of the policy systems (Path P10: e.g., increasing financial demands to maintain schools).

Similarly, (in)coherence of education policy systems affects local systems' capacity to provide access, quality, and continuity of education (Path D3). For example, when policy systems stakeholders have different priorities in educational provision for refugee children, the host-country government may not allow refugee children to access the formal education system and host-country curriculum, while NGOs may provide informal education without accreditation, resulting in parallel systems that is un-coordinated and ineffective, and compromising children's access, quality, and continuity of education in local systems. On the other hand, organized local systems (e.g., teachers' unions, parents' organizations) can have political power that can improve or compromise the coherence of policy systems via advocating for their needs and demands to policy systems stakeholders (Path D4).

4. Usage of ERICC Conceptual Framework

The ERICC conceptual framework can be used (A) to organize the existing education research in conflict and crisis-affected contexts across various disciplines; (B) to identify potential intervention targets and mechanisms/theory of change, and (C) to identify evidence gaps and develop and refine research questions in education research in conflict and protracted crisis.

A. To organize education research in conflict and protracted-crisis contexts

The ERICC conceptual framework can provide an overarching structure to organize and map the existing evidence from education research conducted in conflict- and crisis-affected context across various disciplines. Specifically, the conceptual framework aids in categorizing different foci of research into distinct concepts corresponding to the conceptual framework at both the policy systems level and local systems level: **conflict and protracted crises, pre-existing conditions** (enables/constraints or risk/protective factors), **drivers of learning and development** in education systems and stakeholders/systems engaged in these processes (access, quality, continuity, coherence of the systems), and key **outcomes** of interest for the topic in each country. Then find evidence and map on to specific elements or pathways between these concepts. This systematic mapping process allows organizing evidence on specific topics across policy and local systems level contexts within a single framework (see the example in text box below), enabling synthesis, integration, and expansion of education research across discipline and focal systems/topics.

ORGANIZING EDUCATION RESEARCH THROUGH MAPPING EXAMPLE: SYSTEMATIC EXCLUSION OF MARIGNALIZED GROUPS

Marginalized group membership—based on *gender, ethnicity, religion, disabilities, and/or other socio-economic and cultural marginalization*—is a common **pre-existing risk factor** in the context of conflict and crises. They are often subjected to systematic exclusion and discrimination in education systems, with compromised **access** to and **continuity** of quality education (**Path P6**) and poorer **outcomes** (**Path P8**). The changing circumstances of the conflict and crises can create new form of marginalization and deteriorate the conditions of the existing access, putting the marginalized group at heightened risk (**Path C5**). Without consideration of their challenges, the interventions may be less beneficial for marginalized groups and even cause unintended harm (**Path P7**). Explicit consideration and accommodation of the needs and challenges of such marginalized groups in education programming (**Path P5**) are critical to improving equitable access, quality, and continuity of education (**Path P7**), as well as equitable achievement of learning and developmental outcomes (**Path I4**).

At the policy systems level, stakeholders may have different priorities on whether and how to support marginalized groups. For example, the host country government may prioritize supporting refugee and internally displaced subgroups that share the ethnic, religious, cultural, and linguistic background with the majority group in the host community in their formal schools, while less willing to provide support and accommodations for the subgroups that do not. In contrast, international donors and NGOs may prioritize supporting those marginalized groups in recognition of their greater needs. These different goals and priorities are often deeply rooted in historic and geopolitical contexts (**pre-existing policy enablers and constraints**) and are likely to become even more divergent and misaligned when faced with elevated resource and political constraints in the context of conflict and crisis (**Path C1**). Such conditions are likely to create further incoherence in policy systems in the absence of coordination and negotiation across the actors (**Path P2**), affecting education systems operations' ability to support all children (**Path P4**). In turn, it results in the inequitable provision of access, quality, and continuity of education for marginalized groups at the local systems level (**Path D3**). Policy systems interventions that target increasing coordination across stakeholders can help identify common goals (e.g., supporting all children affected by the crisis) and allow the stakeholders with different priorities to operate in collaborative and complementary ways (**Path I1**). For example, international donors and NGOs providing host-country language instruction and accelerated learning programs; while host country government agreeing to provide marginalized groups access to formal education systems with accreditation.

B. To locate intervention targets and identify theories of change

The ERICC conceptual framework can be used to identify sources of a given problem, what to target and how to improve it. To address existing challenges in education systems in a context (e.g., low literacy), we need to know the primary source(s) of the problem. The problem may be related to one or more of the drivers of learning. For example, either limited access to educational programming that requires school fees, or low quality of education

due to lack of support and training for teachers, or both may be the reasons for the low literacy outcomes. It may also be largely due to limited access to education for marginalized populations, e.g., refugee children and girls, resulting in overall lower average literacy competence. Once the sources of the problem are identified, interventions addressing the specific sources of the problem can be designed to address the specific source of the problem. In this case, a cash transfer program to alleviate the financial burden of school fees, teacher support and in-service training program, and/or informal-education programming specifically designed for the marginalized out-of-school children to boost their access may be the solutions to increase literacy via improving access to and quality of the education. These mapping procedures also help identify theories of change for the intervention by locating pathways from specific predictors, through mechanisms, to outcomes.

C. To support research question generation

Another function of the conceptual framework is to help identify gaps in existing evidence in the contexts and to support generating and refining research questions. For example, if we find there is a lack of evidence and/or support on the role of families in children's access to education in the country scan process, and it is considered a key mechanism of improving access to education in other contexts, we may explore the role of parents and family interactions on children's school enrollment and attendance.

The conceptual framework also provides language, concepts, and paths that can help generate and refine specific research questions. For research questions to be testable, they should be able to identify pre-conditions, processes, outcomes, and the relationships between those elements. The conceptual framework provides specific concepts and paths that can be used to generate such questions, and help narrow down to testable units of research to refine them.

4. Next steps for the ERICC conceptual framework

The ERICC conceptual framework is designed to support evidence organization, research development, and co-construction of research agenda with in-country and global consortium partners for education research in conflict and protracted-crisis contexts. By design, the framework is meant to be abstract and general so that it can cater to various purposes, disciplines, and topics; while being specific enough to organize and incorporate specific evidence and questions. Future iterations of the ERICC conceptual framework will continue to evaluate the balance of generalizability and specificity, as well as its relevance and utility via the application and use in ongoing research over the course of the ERICC programme, and through consultations and engagement with experts from a wide range of disciplines who are interested in supporting children's learning, development, and wellbeing in conflict and crisis-affected contexts.

This conceptual framework is also available in an interactive infographic format, for engaging a wider audience with increased accessibility. In addition, the conceptual framework will, at a later stage of the consortium's work, become the basis for an academic publication.

A future revision of the framework will focus on:
- Contextualization and generalizability of the framework based on in-country engagement and engagement with experts from various disciplinary traditions.
- Reflecting and specifying different landscapes and responses at different crisis points and types of crisis, e.g., emerging crisis, mid-term, and protracted crisis; severity/source of violence; legitimacy of the state, etc.
- Link to case study examples and applications based on the studies conducted in ERICC countries and education in conflict and protracted contexts in general.

Appendix A. ERICC Conceptual Framework Path Index

Paths originate from conflict and protracted crises	
C1	Conflict and protracted crisis can create constraints and enablers in terms of resources, accountability systems, and the political economy of the policy systems.
C2	Different types and characteristics of conflict and crisis create different demands for policy systems. Interventions need to reflect and meet these demands and needs the conflict and protracted crises of the context, in goals, target mechanisms and systems, delivery format, and implementation. policy systems, and results in needs and challenges that can be addressed by interventions. The type, structure, and goal of these interventions is directly impacted by the needs and challenges caused by the conflict and crisis.
C3	Conflict and crisis can disrupt the coherence for access, quality, and continuity within the political economy of education, as well as affect how policy systems respond to the crisis.
C4	The disruptions that occur in the political economy of education from the conflict and crisis then can have direct impacts on operation of policy, budget and financing, and data systems and its effectiveness to provide access, quality, and continuity of education systems (teal box).
C5	Exposure to conflict, a pandemic, economic shocks, and additional crises can change (exacerbate or boost) or newly create pre-existing risk and protective factors in the community, school, and household, as well as child characteristics.
C6	Different types and characteristics of conflict and crisis create different demands for local systems. Interventions need to reflect and meet these demands and needs of the conflict and protracted crises of the context, in goals, target mechanisms and systems, delivery format, and implementation.
C7	Conflict and crisis hinder communities', schools', and households' capacity to provide access, quality, and continuity of education, and coherence among them
C8	A child's exposure to conflict, a pandemic, economic shocks, and additional crises can impact the achievement and equity of children's academic learning, social-emotional and mental health, and physical health and wellbeing
Paths originate from pre-existing conditions	
P1	Pre-existing policy system enablers and constraints can affect the impact of interventions.
P2	Pre-existing policy and system enablers and constraints can facilitate or impede on the coherence between all actors within the political economy of education.
P3	Pre-existing policy system enablers and constraints can affect the impact of interventions on achieving coherence for access, quality, and continuity in the political economy of education.
P4	Pre-existing conditions in policy systems facilitate or constrain the education system operations to achieve access, quality, and continuity
P5	Pre-existing risk and protective factors within a child, community, school, or household can affect the needs and types of interventions.
P6	Pre-existing risk and protective factors within a child, community, school, or household can impact the child's access, quality, and continuity of education.
P7	Pre-existing risk and protective factors within a child's community, household, and school & classroom can affect the impact of the interventions at the local systems level.
P8	Pre-existing risk and protective factors within a child's community, household, and school & classroom can facilitate or constrain the child's academic learning, social-emotional and mental health, and physical health and wellbeing.
P10	Pre-existing policy systems constraints and enablers affect local systems' pre-existing conditions that affect children's access, quality, and continuity. For example, a limited education budget at the policy systems level results in a lack of school resources and families' and communities' lack of confidence in schooling at the local level.

P11	In turn, such conditions in local systems can further strain conditions of the policy systems. For example, lack of school resources and community confidence in local systems, in turn, can further increase the budgetary needs to maintain local school systems and monitoring of local schools more difficult.

Paths originate from interventions

I1	Interventions can improve the coherence among the different actors at the policy systems level.
I2	Interventions implemented to create coherence among different actors at the policy systems level can then improve alignment, accountability, and adaptability of the Education System Operation.
I3	Interventions can improve access, quality, and continuity of education, and the coherence among them at the local systems level.
I4	Interventions implemented to improve access, quality and continuity of education, and coherence among, can increase achievement and equity of academic learning, social-emotional and mental health, and physical health and wellbeing.

Paths originate from drivers of learning and development

D1	Incoherent systems can decrease alignment, accountability, and adaptability of the policy, budget and financing, and data systems, resulting in reduced effectiveness of the education system operations to achieve access, quality, and continuity (teal box).
D2	Access to, and quality and continuity of, education in local systems have direct impacts on children's learning and development: including academic learning, social and emotional competencies and mental health, and physical health and well-being outcomes.
D3	When there is incoherence among the different actors at the policy systems level, the implementation of education systems will be disrupted at the local level.
D4	Organized local systems (e.g., teachers unions, parents' organizations) can have political power that can improve or compromise the coherence of policy systems via advocating for their needs and demands to policy systems stakeholders

Paths originate from outcomes

O1	Alignment, accountability, and adaptability of the education systems operation directly affect the access, quality, and continuity of education in schools/classrooms, households, and communities in local systems.

References

Aber, J. L., Torrente, C., Starkey, L., Johnston, B., Seidman, E., Halpin, P., Shivshanker, A., Weisenhorn, N., Annan, J., & Wolf, S. (2017). Impacts after one year of "Healing Classroom" on children's reading and math skills in DRC: Results from a cluster randomized trial. *Journal of Research on Educational Effectiveness*, *10*(3), 507–529. https://doi.org/10.1080/19345747.2016.1236160

Aber, J. L., Tubbs Dolan, C., Kim, H. Y., & Brown, L. (2021). Children's learning and development in conflict- and crisis-affected countries: Building a science for action. *Development and Psychopathology*, 1–16. https://doi.org/10.1017/S0954579420001789

Arakelyan, S., & Ager, A. (2021). Annual Research Review: A multilevel bioecological analysis of factors influencing the mental health and psychosocial well-being of refugee children. *Journal of Child Psychology and Psychiatry*, *62*(5), 484–509. https://doi.org/10.1111/jcpp.13355

Bakrania, S., Balvin, N., Daidone, S., & de Hoop, J. (2021). *Impact evaluation in settings of fragility and humanitarian emergency* (No. 2021–02; Innocenti Discussion Papers, p. 39). UNICEF Office of Research - Innocenti. https://www.unicef-irc.org/publications/pdf/Impact-Evaluation-in-Settings-of-Fragility-and-Humanitarian-Emergency.pdf?utm_source=mailchimp&utm_medium=email

Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In W. Damon & R. M. Learner (Eds.), *Handbook of child psychology: Theoretical models of human development* (5th ed., Vol. 1, pp. 993–1028). Wiley.

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. Lerner M. & W. Damon (Eds.), *Handbook of child psychology* (Vol. 1, pp. 793–828). John Wiley & Sons Inc.

Burde, D., Lahmann, H., & Thompson, N. (2019). Education in emergencies: "What works" revisited. *Education and Conflict Review*, *2*, 81–88.

Cicchetti, D., & Aber, J. L. (1998). Contextualism and developmental psychopathology. *Development and Psychopathology, 10*(2), 137–141.

Deitz, R., Lahmann, H., & Thopmson, T. (2021a). *Social and Emotional Learning (SEL) Systematic Review* [Report for USAID, Bureau for Africa's Office of Sustainable Development, Education and Youth Division]. Dexis Consulting Group.

Deitz, R., Lahmann, H., & Thopmson, T. (2021b). *Social and Emotional Learning (SEL) Systematic Review* [Report for USAID, Bureau for Africa's Office of Sustainable Development, Education and Youth Division]. Dexis Consulting Group.

Education Cannot Wait. (2022). *Global Estimates: Number of Crisis-Affected Children and Adolescents in Need of Education Support*. Education Cannot Wait. https://www.educationcannotwait.org/resource-library/global-estimates-number-crisis-affected-children-and-adolescents-in-need-education

Hoque, A. & Khandaker, T. (2022, August 11). The Rohingya Humanitarian Crisis and Responses in Cox's Bazar: Five Years On. *Center for Peace and Justice*. https://cpj.bracu.ac.bd/the-rohingya-humanitarian-crisis-and-responses-in-coxs-bazar-five-years-on/

Human Rights Watch. (2019). *"Are We Not Human?": Denial of Education for Rohingya Refugee Children in Bangladesh*. Human Rights Watch. https://www.hrw.org/report/2019/12/03/are-we-not-human/denial-education-rohingya-refugee-children-bangladesh

Kaffenberger, M., & Spivack, M. (2022). *System Coherence for Learning: Applications of the RISE Education Systems Framework*. Research on Improving Systems of Education (RISE). https://doi.org/10.35489/BSG-RISEWP_2022/086

Kabay, S. (2021). Defining Access and Quality in International Education. In *Access, Quality, and the Global Learning Crisis*. Oxford University Press. https://doi.org/10.1093/oso/9780192896865.003.0002

Lasater, M. E., Flemming, J., Bourey, C., Nemiro, A., & Meyer, S. R. (2022). School-based

MHPSS interventions in humanitarian contexts: A realist review. *BMJ Open*, *12*(4), e054856. https://doi.org/10.1136/bmjopen-2021-054856

Lerner, R. M. (1998). Developmental contextualism. *Comparative Psychology: A Handbook*, 88–97.

Masten, A. S., & Narayan, A. J. (2012). Child development in the context of disaster, war, and terrorism: Pathways of risk and resilience. *Annual Review of Psychology*, *63*, 227–257. https://doi.org/10.1146/annurev-psych-120710-100356

Novelli, M., Lopes Cardozo, M., & Smith, A. (2019). The "4 Rs" as a tool for critical policy analysis of the education sector in conflict-affected states. *Education and Conflict Review*, *2*, 70–75.

Pritchett, L. (2015). *Creating Education Systems Coherent for Learning Outcomes: Making the Transition from Schooling to Learning* (p. 47) [Working Paper]. Research on Improving Systems of Education (RISE).

Tseng, V., & Seidman, E. (2007). A systems framework for understanding social settings. *American Journal of Community Psychology*, *39*(3–4), 217–228. https://doi.org/10.1007/s10464-007-9101-8

Tubbs Dolan, C. (2017a). *Accelerating progress towards a coordinated and evidence-based education in emergencies field: A roadmap for research-practice partnerships* [Doctoral dissertation]. New York University.

UNESCO. (2015). Humanitarian aid for education: Why it matters and why more is needed. *Education for All Global Monitoring Report, Policy Paper 21*.

UNICEF. (2022, May 1). *UNICEF: Education milestone for Rohingya refugee children as Myanmar curriculum pilot reaches first 10,000 children*. https://www.unicef.org/press-releases/unicef-education-milestone-rohingya-refugee-children-myanmar-curriculum-pilot