MAPPING

Measuring school-based security interventions to protect from external threats of conflict and violence: a mapping of measurement frameworks and tools

Inter-agency
Network for Education
in Emergencies

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Acronyms

5DE	Five Dimensions of Exclusion
ACPHA	Alliance for Child Protection in Humanitarian Action
COVID	
CPHA	Child Protection in Humanitarian Action
CSS	Comprehensive School Safety
DG	Directorate General
DRRM	Disaster Risk Reduction and Management
ECHO	European Civil Protection and Humanitarian Aid Operations
ECW	Education Cannot Wait
EiE	Education in Emergencies
ECCN	Education in Crisis Contexts Network
EDC	Education Development Center
ERW	Explosive Remnants of War
GADRRRES	Global Alliance for Disaster Risk Reduction Resilience in the Education Sector
GCPEA	Global Coalition to Protect Education for Attack
HPC	Humanitarian Programme Cycle
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Peoples
IFRCRC	International Federation of Red Cross and red Crescent Societies
IIEP	International Institute for Education Planning
INEE	Inter-agency Network of Education in Emergencies
IOM	International Organization for Migration
IRI	International Radio Instruction
ISELA	International Social and Emotional Learning Assessment
KAP	Knowledge Attitudes and Practices
KOI	Key Operating Indicator
KRI	Key Results Indicators
M/F	Male Female
MASC	Multidimensional Anxiety Scale for Children
MHPSS	Mental Health and Psychosocial Support
MRM	Monitoring and Reporting Mechanism of the six grave violations against children
PEIC	Protecting Education in Crisis
PSYC	Psychological Screening for young Children
RCMAS	Revised Chidlren's Manifest Anxiety Scale
SDG	Sustainable Development Goals
SRES	Safe and Resilient Education Systems
TOR	Terms of Reference
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNISDR	United Nations Office for Disaster Risk Reduction
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations International Children's Fund
UNOCHA	United Nations Office of Coordination of Humanitarian Affairs
USAID	United States Agency for International Development
UXO	Unexploded Ordnance
VAC	Violence Against Children
WASH	Water Sanitation and Health
WHO	World Health Organization

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1. INTRODUCTION

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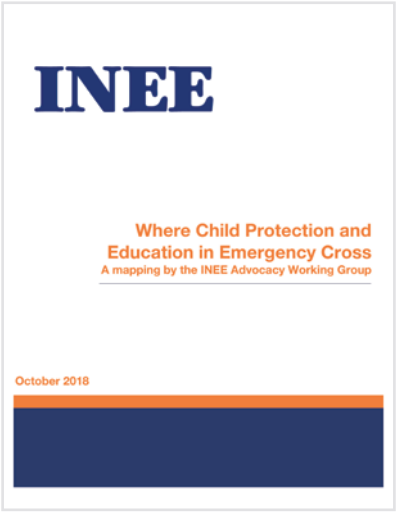
1.1. Background

In 2018, the Inter-agency Network of Education in Emergencies (INEE) and the Alliance for Child Protection in Humanitarian Action (the Alliance), in partnership with the Elevate Children Funders Group and International Education Funders Group, co-hosted a roundtable titled "Integrated Programming across Child Protection and Education in Humanitarian Settings." Participating practitioners agreed that education has a vital protective function, and that child protection can support access to education and improve educational outcomes. However, the full potential of taking a collaborative approach across the education and child protection fields has yet to be achieved.[1]



The 2018 INEE event catalyzed several initiatives by actors such as the Alliance and the Global Education Cluster to build a culture and framework for collaboration. Toward this end, in 2020 the INEE Safe and Resilient Education Systems (SRES) Workstream committed to help improve understanding of measurement and evidence in school-related protection. The group wanted in particular to explore how we can determine whether and how child protection in humanitarian action (CPHA) interventions relate to education access and a quality learning environment.

With this in mind, the SRES Workstream commissioned a paper in early 2020 that was to (1) map measurement of school-related protection interventions that address external risks in settings affected by armed conflict and violence, and (2) recommend ways to generate solid evidence of the impact school-related protection interventions have on (a) access to education and (b) a quality learning environment.

Subsequent terms of reference (TOR), drafts, and consultations further narrowed the scope. See relevant operational definitions for this paper below.

1 The event summary was written by Helen Kearney (2018), based on a framework for collaboration between child protection and education in humanitarian contexts that was developed by independent consultants Manuela de Gasperi and Serena Zanella.

1.2. Framing and Definitions

The definitions presented here were established to clarify the scope and working language for the paper in order to enhance the research and exploration of the measurement methods. The scope and understanding of the paper evolved throughout the writing process.

The SRES Workstream's original question was:

- How do education in emergencies (EiE) and CPHA actors measure school-related protection interventions and their relationship to education access and a quality learning environment?

This raised the question of what is meant by protection. The original definition in the SRES Workstream terms of reference was the following abbreviated menu of interventions from the Global Coalition to Protect Education from Attack (GCPEA):

- Analysis: assessment of risks
- Infrastructure: e.g., shelters, protective walls
- Risk management protocols: e.g., early warning systems, school safety and security committees, evacuation plans, drills
- Protection-sensitive measures: e.g., adjusting school schedules according to patterns of insecurity, re/locating schools or student and teacher accommodations, providing a protective presence on school routes
- Advocacy: dialogue with arms carriers and relevant authorities

The desk review included a wider GCPEA menu and multiple protection-related disciplines, such as disaster risk management, peacebuilding, and school-related gender-based violence. Through dialogue with the SRES workstream members, the topic of interest was narrowed to physical security from external threats of conflict or violence. This excluded violence in the classroom, intimate partner violence, teacher-student violence, bullying, and comprehensive disaster risk management (i.e., including natural hazards). Narrowing the intervention list enabled the paper's authors to go more deeply into measurement while staying within the target page limit of 20.

A second clarification that narrowed the scope was the intention behind the term "quality learning environment." The SRES Workstream's definition was the all-inclusive Save the Children Quality Environment Learning Framework: physical protection, emotional and psychosocial protection, teaching and learning, teachers, caregivers/parents, and communities that contribute to the three child outcomes of literacy, numeracy, and wellbeing (Maranto, 2017). The original desk review explored this wide array but found the scope too broad to allow sufficient focus on measurement. The United States Agency for International Development (USAID) has already published a Literature Review on the Intersection of Safe Learning Environments and Educational Achievement (RTI International, 2013), so discussion with the SRES Workstream members narrowed the focus to a single outcome: child psychosocial wellbeing. This excluded the wider equality learning environment framework, and learning achievement in literacy and numeracy.

Informed by these conversations, the resulting research question for the paper was:

How do EiE and CPHA actors measure four categories of school-based, physical security interventions that address external threats of conflict and violence, as well as their relationship with access to education and the psychosocial well-being of learners?

For further clarity, the operational definitions of key terms used for the remainder of the paper are presented in a table format below. Please note that these and other definitions are also discussed in greater detail in the subsequent sections.

Table 1. Operational definitions of key terms

TERM	OPERATIONAL DEFINITION
School-based	Refers to school level only Excludes: systems, policy, community, household level
Four school-based security interventions	1. **Physical security of facilities:** e.g., infrastructure fortification and rehabilitation, shelters, protective walls, armed guards, accompaniment en route to and from school, community support and protection of learning institutions, life-saving messages, e.g., mine risk/UXO education 2. **Physical security risk management:** e.g., risk analysis, early warning systems, school safety and security committees, risk reduction, response preparedness evacuation plans, drills and exercises 3. **Contingency education delivery due to insecurity:** e.g., adjustment of school schedule/calendar according to patterns of insecurity, relocation of schools, distance education 4. **Advocacy for school-based security:** e.g., dialogue and negotiations with armed groups and armed forces; monitoring of attacks and military use of schools Excludes: violence in the classroom, intimate partner violence, teacher-student violence, social and emotional learning instruction, bullying, comprehensive disaster risk management (i.e., including natural hazards), accelerated education, peacebuilding, conflict-sensitive education, etc.
Access to education	Participation in education of learners who face insecurity due to external threats of conflict or violence Excludes: other access interventions focused on aspects such as disability or differently abled students
Psychosocial wellbeing	"Psychosocial" is used here to describe both psychological wellbeing and the interconnection between the individual (i.e., a person's psyche) and their environment, interpersonal relationships, community and/or culture (i.e., their social context). See more explanation in that section.

TERM	OPERATIONAL DEFINITION
External threats	Threats originating and having an impact outside the school, e.g., gang activity targeting students and teachers; attacks on individuals and/or schools by armed groups, military, or militants; schools caught in the crossfire of armed conflict; recruitment of child combatants Excludes: internal threats such as interpersonal violence in school, bullying, corporal and humiliating punishment at home or in the classroom
Measurement	The indicators, results/logical frameworks, and methods employed to track progress toward the intended outputs, outcomes, and impacts of the review's selected interventions and outcomes
EiE and CPHA actors	Donors and practitioners in the fields of EiE and CPHA programming and measuring school-based physical security interventions who address external threats of conflict and violence Sectors overlap, but this means we prioritized CPHA and EiE staff members over other actors, such as those in peacebuilding, (non-education) disaster risk reduction, WASH, and conflict sensitivity.
Learners	Children and youth in school ages 3-18

1.3. Methods

Methods for this study involved a literature review and key informant interviews.

Literature Review

In the literature review, the intended priority was practitioner project evaluations that addressed the intersection of four interventions, psychosocial wellbeing, and access to education in contexts of external conflict and violence. Few project evaluation reports on these topics were discovered in the public domain or shared by key informants. The second priority was publications (guidance notes, good practice briefs, etc.) with recommendations for what should be measured, rather than what has been measured. Many more documents were found in this category, most of them global or regional guidance aimed at contexts affected by conflict and violence in developing countries; most were in the public domain, a few were internal documents shared by interviewees. Sources included (1) documents shared by the INEE SRES Workstream and key informants; and (2) the results of a Google key-word search for practitioner literature, which used the following search terms: safe schools measurement, disaster risk management, mine risk education, protective learning environments, children psychological wellbeing measurement, access to education measurement, alternative education program measurement, INSPIRE, protection of education from attack, conflict and disaster risk reduction, violence against children, and global indicator lists. The sampling of documents from this literature was purposive, documents were selected according to their relevance to key topics and being published by agencies known to work in this area. This resulted in a review of around 100 documents.

Key Informant Interviews

For the interviews, the intended priority was CPHA and EiE donors and practitioners working on the topic of school security at any agency level. A subsequent sampling of key informants was purposive, resulting in 25 key informant interviews conducted with staff from donors and implementing agencies, headquarters and country office staff members, majority education actors, and some CPHA actors. We announced the inception report and invited all INEE Working Groups, including the managing INEE SRES Workstream, to pass interview invitations to relevant colleagues. A second round of contacts was identified by a snowball sampling of contacts from among the original key informants. Interviews were limited to those willing/able to make time during the hectic period when staff members and agencies were adjusting to the disruption of COVID-19. No government representatives were interviewed. The interview tool was a semi-structured protocol including consent, study purpose, and use of data. Interviews were conducted on Zoom, Skype, or WhatsApp, according to what was convenient for the informants. Responses were saved in a password-protected folder on Google drive. Any sensitive data—that is, data that could put anyone at risk—were marked "confidential" and not saved on Google drive. Informants determined individually whether sharing their information would put anyone at risk, and they were informed that, if the interview proceeded, a plan would be put in place to protect those involved.

Methodological Limitations

There were several limitations to this methodology. First, we acknowledge that, although not found, many project evaluations in this area likely exist in internal agency libraries that are not publicly available. Second, the project definitions limited the scope of the relevant CPHA literature, since much of it focuses on interpersonal violence and violence against children inside schools and homes. Lastly, the current global pandemic influenced the amount of time practitioners were able to spend on the project.

2. FINDINGS AND RECOMMENDATIONS

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How do EiE and CPHA actors measure four categories of school-based physical security interventions that address external threats of conflict and violence, and the relationship of these interventions with learners' access to education and psychosocial wellbeing?

What recommendations are made for ways to generate good evidence?

FINDINGS	RECOMMENDATIONS
1. This review found no project evaluations from EiE or CPHA actors that matched this precise research question, i.e., the independent variables of four categories of school-based security measures, the dependent variables of access to education and psychosocial wellbeing.	If this hypothesis is to be tested, an implementing agency would need to be funded to deliver the specified school-based security interventions and to measure their relationship with learners' access to education and psychosocial wellbeing. The design would need to account for complex compounding variables, intermediate outcomes, and the ethics of comparison group models.
2. EiE or CPHA actors' literature offers broad guidance on what measurement should be done, rather than detailed guidance on research methods of how it has been done. CPHA and EiE program guidance notes on school-related protection are less likely to include instructions on measurement methods testing relationships (e.g., protection intervention with children's psychosocial wellbeing). This nature of guidance is not sufficient to build a robust evidence base for the contribution school-related protection activities make to access and psychosocial wellbeing; advocacy is thus weakened. (Global Education Cluster, UNICEF, Plan, and Save the Children, n.d.; GADRRRES, 2015; UNESCO IIEP and PEIC, 2015; UNICEF, 2012)	We treasure what we measure. CPHA and EiE actors should commit to including measurement in all guidance notes. More specifically, author teams should: 1. include measurement staff and, ideally, research partners; 2. include instructions on measurement methods (i.e., more than indicator lists), including quasi-experimental and experimental, that test causal linkages of logical frameworks; and 3. include psychometrically robust tools already tested in humanitarian contexts, such as the International Social and Emotional Learning Assessment (ISELA), the Strengths and Difficulties Questionnaire, or PSYC.

FINDINGS	RECOMMENDATIONS
3. Incongruent goals between EiE and CPHA actors. Generally, learning and wellbeing are the goals of education projects, and protection is an intermediate result. Protection from violence, abuse, and exploitation is the goal of CPHA projects. Of course, projects vary, but this incongruence in the common results framework challenges research design.	Donors incentivize CP and EiE synergy via funding of joint projects, thus joining results frameworks and testing causal linkages in multi-sectoral projects. The collaborative work of the Global Education Cluster and the Child Protection Area of Responsibility (2020) has advanced a shared coordination framework that can support such collaboration in measurement.[2] Donors and implementing agencies consider their approach to designing, funding, and delivering education and child protection programmes, and to move towards joint or integrated program models, putting child wellbeing and healthy development at the centre of their approaches.[3]
4. Measurement of safety commonly relies on children's and adults' self-reported, subjective perceptions of safety. While respondent perceptions are important, they alone are not sufficient to test the efficacy of interventions. Human perceptions are subjective, and risk tolerance can vary by individual, identity group, normalization, and age.	Measurement tools for self-reported perceptions of safety should be complemented with objective standardized safety measures. Tools such as the Comprehensive Safe Schools Suite, in particular the school safety self-assessment survey, could be adapted for this purpose. Examples: number of days of school lost to violence, number of student deaths/injuries, incident reporting
5. Similar desk reviews have reached the same conclusions; i.e., that, while a wide array of tools exist, the **methods of evaluating concepts like learners' psychological and psychosocial wellbeing in contexts of conflict need refining.**[4]	Donors should fund and incentivize implementers' use of more robust tools to measure learners' psychosocial wellbeing in school-based physical security projects. Where tools are not available, testing and strengthening of evolving tools, such as ISELA, should be funded. At the time of publication, a mapping published by WHO and the Inter-agency Standing Committee on Mental Health and Psychosocial Measurement is forthcoming.

2 The CP-EiE Collaboration Framework developed by the Global Education Cluster and Global Child Protection Area of Responsibility (2020) supports Education and CP coordination teams' predictable and coherent collaboration throughout the Humanitarian Programme Cycle (HPC).

3 The Alliance and INEE developed a position paper with evidence supporting collaboration and integration between the sectors, providing a rationale for cross-sector work grounded in child wellbeing and holistic development. The paper includes a summary of challenges and opportunities, and draws out clear recommendations for systematic and planned collaboration.

4 Guide to the Evaluation of Psychosocial Programming in Emergencies, (Boothby et al., 2009) a desk review conducted with the support of UNICEF of existing psychosocial assessments and evaluations by the Mailman School of Public Health, found that some effective psychosocial evaluations have been conducted and a wide range of tools exist. However, it also identified a number of widespread problems that led to questionable or inconclusive results, including (1) a lack of clear and appropriate project objectives; (2) a number of common methodological weaknesses in evaluations; and 3) a lack of appropriate quantitative tools for assessing psychosocial wellbeing.

FINDINGS	RECOMMENDATIONS
6. Conceptual differences of conflict and violence among CPHA and EiE practitioners. Framing of "school external and internal threats" is more commonly an education framing. In contrast, the framing of CPHA studies (Child Fund, Uganda Violence Against Children (VAC) study, VAC and INSPIRE models) trends toward protecting children from violence, regardless of location (school, non-school) or perpetrator (armed group, other).	If CPHA and EIE staff are to collaborate on a conceptual framework to build evidence in this area, it is recommended that the framework be wider than that of this paper, and should include four categories of interventions addressing "external threats to school." Future reviews could encompass the full spectrum and dimensions of violence, including interpersonal violence, which is often the focus of CPHA VAC models. To focus narrowly on one or the other implies a synthetic divide between conflict/violence outside and inside schools, when we know it is interrelated.
7. Coordination agendas are advancing for multi-sectoral coordination on school protection responses and advocacy, but multi-sectoral research agendas and methods are lagging behind. For example, GCPEA provides detailed and prolific recommendations for protecting education and the Safe Schools Declaration. INEE and the Alliance are advancing combined indicator lists and program guidance and evidence. A cross-sectoral protection of education research agenda and methods was not found.	A donor could advance a research agenda for the interventions recommended by GCPEA by funding CPHA and EIE actors to implement and systematically measure at the project level, with the aim of creating an evidence platform that includes measurement methods. The USAID Education in Crisis Context Network (ECCN, n.d.) is an exemplary evidence platform; Safe to Learn is another consortium on the topic (Safe to Learn, 2019). Examples of measurement in multi-sectoral frameworks from other sectors include Comprehensive School Safety (CSS) (GADRRRES, 2015), INSPIRE (UNICEF, 2018a), FRESH (UNESCO, 2013), and School-related Gender Based Violence (UNESCO and UN Women, 2016).
8. Girls and boys are uniquely vulnerable and affected differentially in contexts of conflict and violence. Similarly, the remedies for them may be unique, but **little of the school-related protection measurement guidance includes gender-specific guidance;** this applies more to education literature than CPHA literature.	Move beyond quantitative disaggregation. Employ mixed methods research design. First use qualitative methods to understand girls' and boys' differentiated experience of school-related conflict and violence, followed by quantitative measures that include items specific to gendered experiences. GCPEA qualitative studies on protecting girls from attack provide a model.
9. Project evaluations, including their methods and tools, are often kept internal by donors and implementers. This lack of sharing in the field of school-related protection hampers the sector's ability to share lessons learned on measurement methods, as well as findings on effectiveness.	Donors could incentivize a culture of trust and transparency by posting project evaluations and their methods on a public or a closed platform for meta- analysis by select researchers. Possible host platforms include the GCPEA, INEE, the Alliance, the Measurement Library, Education in Conflict and Crisis Network (ECCN), and Save the Children Resource Library. Sharing would follow protective ethical research standards.

3. MAPPING MEASUREMENT

How do EIE and CPHA actors measure four categories of school-based physical security interventions that address external threats of conflict and violence, as well as their relationship with access to education and the psychosocial well-being of learners?

This section has six subsections on measurement of
(1) access to education
(2) psychosocial wellbeing of learners
(3) physical security
(4) physical security risk management
(5) contingency education delivery due to insecurity, and (
(6) advocacy for school-based security.

Each of the six subsections maps
(a) concepts, including frameworks, models, and definitions, followed by
(b) measurement, including indicators and tools. Indicators are listed by agency rather than by output and outcome, as the latter categorization may vary depending on a project design and results framework.

3.1 Access to Education

How do EiE and CPHA actors measure access to education?

(a) Concepts

Conceptual models of access to education vary across the CPHA and EiE literature; most fall somewhere along the spectrum below. In the simplest measurement, access equals enrollment. Higher concepts of enrollment can mean children and youth attending school, participating, and learning.

Children out of school with no school/learning site present
Children out of school with school/learning site present
Children enrolled
Children attending
Children participating in learning
Children learning

Conceptions of access can be supply focused, which ensures that the education system is ready for students, or demand-focused, which ensures that children and youth are ready to participate in the education system, or both. An example is the 4As model developed by the former UN Special Rapporteur on the Right to Education, which includes accessibility (see Figure 1) as one of the four essential components of education (Right to Education Project, 2009). The model characterizes accessible education supply as non-discriminatory, without financial barriers, free, and compulsory. The model addresses demand-side barriers to access, such as child marriage and child labor.

Figure 1. Accessibility Factors

- Non-discrimination at all levels of and types of education
- Elimination of legal and administrative barriers
- Elimination of financial barriers such as user fees
- Provision of free and compulsory primary and secondary education and progressively free education at all other levels and types of education
- Elimination of practices keeping children and adolescents out of school, for Example, child marriage and child labor
- School must be within a safe and reachable distance
- Provision of school transportation, where necessary
- Measures to prevent drop-outs and to identify out of school children and get them back into the education system

Right to Education Project, 2009

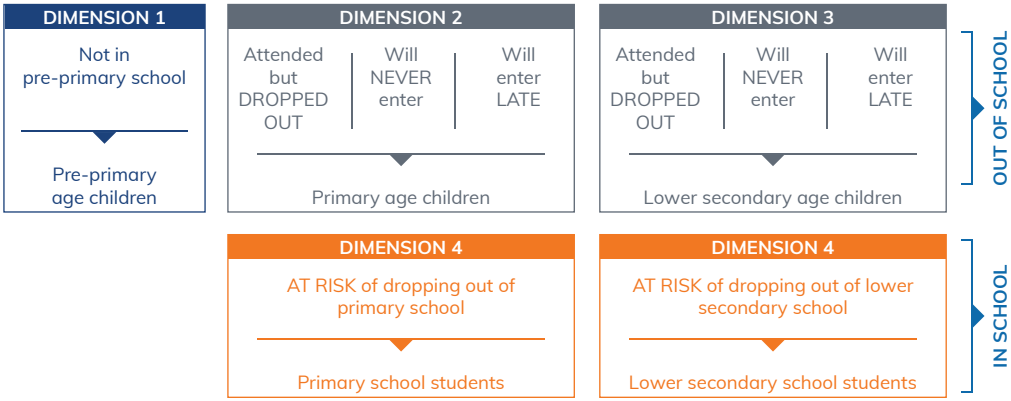
Access frameworks can focus on the "pull factors" that draw learners to school, such as addressing non-attendance with home visits to encourage children and youth to come to school. Or they can focus on the "push factors"—that is, the barriers that push children and youth away from attending school—such as addressing attacks on learners en route to and from school by providing protective accompaniment. For example, the International Committee of the Red Cross (ICRC) Framework for Access to Education 2018-2020 (2017) focuses on reducing barriers to school access. More specifically, in Ukraine's Access to Education Objective, ICRC aims to reduce barriers to education while also improving preparedness for attacks on schools. The objective reads: "Access to education (at all levels) for the civilian population located close to the contact line improves by an increased respect by weapons bearers for the protection of the students, teachers and educational facilities on the one hand, and improved preparedness and self-protection mechanisms of educational staff on the other" (ICRC, personal communication, 2018).[5]

Another conceptual model in this category examines why children do not attend school. The UNICEF Out-of-School Initiative[6] describes "an evidence-based approach to advocate for policies, strategies, and budgeting practices aimed at addressing the problem of out-of-school children" (UNICEF, 2018b, p.5). Out-of-school children are divided into five dimensions of exclusion.

5 ICRC access to ed indicators (Brazil, Azerbaijan, Ukraine): Planning and monitoring tool entries provided by a key informant.

6 The Out-of-School Children Initiative was a partnership between UNICEF, the UNESCO Institute for Statistics, and the Global Partnership for Education from 2010-2016.

Figure 2. Five Dimensions of Exclusion (5DE) (UNICEF, 2018b)



DIMENSION 1
Children of pre-primary school age who are not in pre-primary of primary school

DIMENSION 2
Children of primary school age who are not in primary or secondary school

DIMENSION 3
Children of lower secondary school age who are not in primary or secondary school

DIMENSION 4
Children who are in primary school but at risk of dropping out

DIMENSION 5
Children who are in lower secondary school but at risk of dropping out

(b) Measurement

Indicators that measure access are more common than those that measure the other topics presented in this review. The common access indicators and their sources are mapped in the table below. Note that, as discussed above, the indicators address both the continuum of children and youth participation in school and the schools' availability to them.

Disaggregation in quantitative and qualitative measures of access is recommended. Children and youth affected by conflict and violence—the focus of this review—tend to have (a) lower education access rates in general, as well as (b) large disparities in access as a result of exclusion due to poverty, gender, displacement, the urban/rural divide, or other factors (Soares et al., 2018). FHI360 recommends that "equitable access indicators measure horizontal inequalities—that is, inequalities among different groups in a society" (para. 4). Conflict impacts access differently for girls and boys, so the disaggregation by gender is of particular importance (Burde et al., 2016).

The access indicators commonly found in the literature are listed below. The most common are net and gross enrollment, attendance, and dropout rates. Qualitative methods can supplement these data by inquiring into how barriers of conflict and violence impact different populations. However, guidance for these methods is less common than the quantitative indicators.

This paper is focused on measuring evidence of effectiveness at the program/project level, as opposed to the population level, so the dearth of population-level data is not a serious issue. Moreover, the availability of population-level data is improving through the efforts of data houses such as Humanitarian Data Exchange, which now hosts over 2000 datasets (Centre for Humdata, 2019).

Table 2. Indicators for measuring access

ACCESS INDICATORS	INDICATOR SOURCE
Net and gross intake at first grade Net and gross enrollment rate Gross enrollment rate Attendance rate Dropout rates Out-of-school rate Transition rate	Education Management Information Systems or UNESCO International Institute of Statistics.
Out-of-school rate—proportion of countries supported by Education Cannot Wait (ECW) that meet country-specific targets for out-of-school rate for children and young people in crisis- and conflict-affected countries who are (a) of primary school age, (b) of lower secondary school age, and (c) of upper secondary school age. Disaggregated by gender where possible. Average school attendance rate for ECW-supported children and youth in formal or non-formal equivalent. Disaggregated by gender, level of education, formal vs. non-formal equivalent, and disability, and, where possible, status as refugee, IDP, and other minorities, according to context. Proportion of ECW grantees meeting program-specific targets for proportion of children who complete (a) primary education and (b) lower secondary education. Survival rate (percentage of pupils at first-grade education level expected to reach successive grades) for ECW-supported children and youth in (i) primary school and (ii) lower-secondary school.	ECW. (2017). Results Framework Indicator Technical Detail.
Participation rate of youth in formal and non-formal education and training in the previous 12 months, by gender.	United Nations Department of Economic and Social Affairs. (2015). Sustainable Development Goals (SDGs) Targets and Indicators.
Number of missed school days due to safety concerns in past month	UNICEF. (2018a). INSPIRE Indicator Guidance and Results Framework.

ACCESS INDICATORS	INDICATOR SOURCE
Number of days of school closure due to hazard impacts Number of days of school closure made up through school calendar adjustments Number of students displaced from school for number of days Number of hours reduction in school day for number of days Percentage increase in average class size for number of days Number of students relocated to temporary learning facilities School attendance sampled 5, 10, 20, 30, 40, and 50 school days after impact, and at beginning of next school year Number of students not returning to school	GADRRRES. (2015). CSS Targets and Indicators and Concept Note for Phase Two.
Net Attendance Rate	INEE Minimum Standards Indicator 2.1 (2021). OCHA Indicator Registry

3.2 Psychosocial Wellbeing of Learners

How do EiE and CPHA actors measure psychosocial wellbeing?

(a) Concepts

Among CPHA and EiE actors, psychosocial and psychological wellbeing are conceptualized in different ways. This presents a challenge, as the lack of coherence among different actors has a negative impact on the ability to measure psychosocial wellbeing. Definitional variations include

- the terms used (wellbeing, psychosocial wellbeing, psychological wellbeing);
- the number of subdomains in the concept, ranging from 1 to 6; and
- proportional emphasis of one subdomain compared to another (perceptions over skills or anxiety over depression).

In some documents, the term "wellbeing" refers only to the psychological and social (not physical), while other documents distinguish between psychological wellbeing and psychosocial wellbeing. See the example in the ICRC definitions below (ICRC, 2018).

Psychological wellbeing	The term "mental health" is used to denote psychological wellbeing. Mental health interventions aim to improve psychological wellbeing by reducing psychological distress, improving daily functioning, and offering effective coping strategies.
Psychosocial wellbeing	The term "psychosocial" is used to describe the interconnection between the individual (i.e., a person's psyche) and their environment, interpersonal relationships, community, and/or culture (i.e., their social context).

Concepts of wellbeing in the CPHA and EIE literature also have similarities, such as

- the focus on positive attributes or functions (vs. the absence of negative attributes such as anxiety and depression);
- the inclusion of three subdomains: 1. internal feelings and perceptions; 2. external relationships; and 3. resilience skills; and
- the dearth of tested, robust measurement tools.[7]

Although definitions for general wellbeing or psychosocial wellbeing are abundant, few guidance or technical notes include instruction on measurement methods or tools.[8]

Ryff's six-factor model of psychological wellbeing is arguably one of those most empirically tested across countries and over time using a standardized measurement tool (Ryff & Singer, 1996). As such, it is included here as a comparative reference for the definitions drawn from the EIE and CPHA practitioner literature.

Table 3. Definitions of wellbeing across EiE and CPHA actors

SOURCE	DEFINITION
Carol Ryff (Ryff & Singer, 1996)	Psychological wellbeing • Self-acceptance • Personal growth • Purpose in life • Environmental mastery • Autonomy • Positive relations with others
UNICEF (Boothby et al., 2009, p. 10)	Psychosocial wellbeing • Skills and knowledge, e.g., life skills, using culturally appropriate coping mechanisms, vocational skills, conflict management, etc. • Emotional wellbeing, e.g., feeling safe, trust in others, self-worth, hopeful for the future, etc. • Social wellbeing, e.g., attachment with caregivers, relationships with peers, sense of belonging to a community, access to socially appropriate roles, resuming cultural activities and traditions, etc.
International Federation of Red Cross and Red Crescent and Save the Children (2012, p. 9)	Children's wellbeing • Skills and knowledge, e.g., learning how to resolve conflicts, improved peer communication, making good choices • Emotional wellbeing, e.g., hope for the future, sense of control, self-worth • Social wellbeing, e.g., ability to interact, solve problems with others, sense of belonging to a community

7 One could argue that an exception is found in Save the Children's model for social and emotional learning and the corresponding ISELA tool, which is profiled in the tool section below.

8 See a typical guidance note on programming without measurement in the International Federation of Red Cross and Red Crescent Societies and Save the Children (2012).

SOURCE	DEFINITION
UNHCR (2014)	Children's wellbeing, including "what is good for a child," such as • Developing emotional bonds with trusted adults • Participating in meaningful social roles • Feeling happy and hopeful • Having positive social and learning experiences in a supportive environment • Developing healthy coping mechanisms • Having access to basic necessities and feeling safe
WHO, War Trauma Foundation, & World Vision (2011)	Psychological first aid involves factors that seem to be most helpful to • Long-term recovery, feeling safe • Feeling connected to others • Feeling calm and hopeful • Having access to social, physical, and emotional support • Feeling able to help themselves, as individuals and communities

As mentioned before, the purpose of this paper is not to prescribe standardized definitions; however, an operational definition is needed in order to discuss measurement. Therefore, because this review finds that definitions in the EIE and CPHA literature (see UNICEF below) are using psychosocial wellbeing in name and in definition—meaning both mental health and relationships—this paper will follow suit.

(b) Measurement

Measuring children's psychosocial wellbeing is relatively complex. Robinson et al. (2014) describe three main sources for this complexity.

1. Wellbeing is defined by social norms and embedded in culture, so definitions vary across identity groups.
2. Measuring children's wellbeing relies largely on self-reporting by children and their caregivers, which is vulnerable to bias, such as social desirability. Such bias challenges the ability to measure in a standardized, consistent, and reliable way.
3. Measurement of any kind is difficult in contexts of crisis and conflict, due to issues such as security threats in the program area, minimal measurement expertise in the area, limited time for assessment, and children being on the move.

Measuring children's wellbeing involves composite indicator tools—that is, measurement instruments with multiple items for each subdomain. This review found that such tools are rarely found in the guidance notes and toolkits CPHA and EiE actors produce on the topic.[9] However, as the ICRC Guidelines on Mental Health and Psychosocial Support and the Columbia University comprehensive compendium indicate, wellbeing measurement tools are available and have been tested in humanitarian contexts

9 For example, of the conceptual models listed in the table, only Carol Ryff's (Ryff & Singer, 1996) has an empirically tested psychometrically robust tool outside the CPHA and EIE literature. Notable exceptions include Save the Children's ISELA Tool and IRC's SERAIS, both found in the INEE Measurement Library.

(ICRC, 2018; Robinson et al., 2014). Some tools measure the positive attributes of well-being, while others measure the presence of a mental health concern or disorder—in other words, the absence of wellbeing.

It is also important to note that many of the measurement tools used in emergency contexts have been developed in Western, stable, or high- and middle-income contexts, presenting a potential disconnect between the region of development and the regions of crisis in which the tool is used.

Columbia University published one of the first mappings of 48 measures of psychosocial wellbeing of children and/or adolescents in the context of humanitarian emergencies. All the tools mapped have been rigorously tested and used in humanitarian contexts in areas of conflict, such as Uganda, Lebanon, Kuwait, Sri Lanka, Bosnia, Pakistan, and the Democratic Republic of the Congo. However, the authors emphasize that "selecting a measurement strategy for the assessment of the mental health and psychosocial wellbeing of children in humanitarian emergencies requires careful consideration of a number of issues . . . consideration needs to be given to the issues of cultural validity, reliability and feasibility" (Robinson et al., 2014, p. 1). Also worth considering is the length of time and technical support required to apply the tools, particularly in rapid onset emergencies. For this challenge, the Columbia compendium included a decision-making guide to help navigate tool selection. It advises having a mental health expert guide the selection and application of any psychosocial wellbeing measurement tool.

The definitions of psychosocial wellbeing found in the practitioner literature and the tools mapped by Columbia University are incongruent. Most of the tools mapped measure the absence of wellbeing, such as depression, anxiety, and aggression, whereas the CPHA and EIE literature define wellbeing through positive attributes or competencies of wellbeing, such as emotional regulation. The International Social and Emotional Learning Assessment Nikhit D'Sa (2019b) developed for Save the Children after the University of Columbia mapping also focuses on positive skills and competencies. D'Sa also has provided guidance on the requisite considerations for selection, such as time and budget constraints and adopting or adapting tools.

To address the challenge of data collection in crisis contexts, the INEE Measurement Library[10] contains a collection of measurement tools to assess children's learning and holistic development and service provider quality. The Library contains measures and assessments that have been vetted, reviewed and tested for use in crisis contexts including Save the Children's ISELA Tool (D'Sa, 2019a), among others.

At the time of publication, a mapping published by WHO and the Inter-agency Standing Committee on Mental Health and Psychosocial Measurement is forthcoming.

10 The INEE Measurement Library was launched in 2019, through a collaboration between INEE, IRC and New York University (NYU). The 3EA MENAT Consortium, convened by NYU Global TIES, led the process to determine which tools to include or analyze in the Library, with the aim of assembling, with rigor, the most thorough and useful collection of measures currently available to the child protection and education in emergencies space.

Table 4. Measurement Tools of Children's and/or Adolescents' Psychosocial Wellbeing (selected tools and adapted descriptions from the Columbia University Mapping)[11]

TOOLS MEASURING (SOME SUBDOMAINS OF) WELLBEING	
Are we making a difference?	A set of qualitative, participatory evaluation tools for monitoring and measuring the impact of psychosocial support programs for children and adolescents ages 6-18
IOM Psychosocial Wellbeing Schema	Two questionnaires for multiple stakeholders, including families and children, to assess psychosocial wellbeing in an emergency setting, including the emotional experiences of displacement in terms of housing, employment, school, and social life; and distress indicators, which aim to identify common psychosocial-related symptoms and/or areas of dysfunction seen in affected families and communities
Brief COPE Inventory	A 50-item questionnaire that asks respondents to indicate what they generally do and feel when they experience stressful events
TOOLS MEASURING DISTRESS, ABSENCE OF WELLBEING (DEPRESSION, ANXIETY, AND/OR AGGRESSION)	
Child Behavior Inventory	A questionnaire for children ages 5-16, contains 25 items that inquire about behavioral symptoms: aggression (9 items), depression (10 items), and anxiety (6 items); and 17 items that measure behavioral adaptations: prosocial behavior (9 items) and planful behavior (8 items)
Child Psychosocial Distress Screener	An assessment tool for children ages 8-14 that aids in preliminary detection and determination of the level of psychosocial distress, and any potential need for specialized services and/or treatment; CPDS uses broad, non-specific questions relating to one of three factors—distress, resilience, or school—**and can be administered by non-specialists.**
Hopkins Symptom Checklist–25/37A	A screening tool for adolescents that assesses mental wellbeing based on five symptom dimensions: somatization, obsessive compulsion, interpersonal sensitivity, anxiety, and depression; contains various versions, ranging from 10 to 90 items
Multidimensional Anxiety Scale for Children (MASC)	A self-report tool used to assess for symptoms of anxiety in children ages 8-19, the MASC is available in two forms: MASC (the full version) and MASC-10 (the short version); the MASC consists of 39 items spread across various domains: harm avoidance, social anxiety, physical symptoms, anxiety disorders, separation/panic, total anxiety index, and inconsistency index
Pediatric Emotional Distress Scale	A rapid behavioral screening tool that is completed by parents and/or caregivers of children ages 2 to 10 who have had recent exposure to a traumatic and/or stressful event; the 21-item tool consists of 17 general behavioral questions grouped into three domains—anxious/withdrawn, fearful, and acting out—and four questions specific to trauma exposure and focused either on play or talk

11 This list is limited to tools that measure whether or not children and/or adolescents are well. Additional tools focus on behaviors that contribute to wellness, such as the WHO and UNHCR (2012) guidance, "Assessing Mental Health and Psychosocial Needs and Resources Toolkit for Humanitarian Settings," which provides 12 tools, guidance on tool selection, and instruction on qualitative and quantitative data collection.

Psychological Screening for Young Children ages 3 to 6 (PSYCa 3-6)	A rapid screening tool to assess children ages 3-6 who have been exposed to crisis situations in order to determine a general level of psychological distress
Revised Children's Manifest Anxiety Scale (RCMAS), "What I think and feel"	The RCMAS, a 37-item self-report tool used to measure the level and nature of generalized anxiety in children ages 6-19 years and informally referred to as the "What I think and feel" scale, was originally adapted from the Children's Manifest Anxiety Scale to allow for a wider and more accurate measurement of anxiety
Self-Reporting Questionnaire	A screening tool designed by the World Health Organization to assess (no age specified) for common mental disorders in primary health care and/or community settings; consists of 20 short Yes/No questions that inquire about the presence of anxiety, depression, and psychosomatic symptoms during the previous month
SAVE THE CHILDREN'S TOOL TO MEASURE SOCIAL AND EMOTIONAL LEARNING COMPETENCIES	
International Social and Emotional Learning Assessment (D'Sa, 2019b)[12]	ISELA measures key intrapersonal and interpersonal competencies in children ages 6-12 using performance-based measures (not Likert scales) across four domains—self-awareness, self-management, social awareness, and relationship skills—which include seven subtasks: self-concept, antisocial/conflict behavior, stress management, perseverance, empathy, prosocial behavior, and relationships

3.3 Physical Security of Facilities

(a) Concepts

The GCPEA describes school-related physical protection interventions as mechanisms that shield schools and those in and around them from attacks and violence (GCPEA, 2011). External attacks and violence can be deliberate attacks on schools by unarmed or armed actors, as well as schools caught in the crossfire of armed conflict.

As described in multiple GCPEA publications and in the conflict/disaster risk reduction literature, physical protection interventions include boundary walls, shelter-in-place bunkers, shatterproof glass windows, emergency first aid, emergency evacuation doors, multiple entrances and exits, metal detectors, armed or unarmed guards, teacher or student housing, alternative transportation, and accompaniment to and from school (GCPEA, 2011).

(b) Measurement

Anecdotal reports in the GCPEA literature indicate that physical protection can be effective, depending on circumstances. However, no project evaluations linking this review's outcome of interest—physical protection—with student psychosocial wellbeing were found. Since targeted attacks on education typically depend on surprise and affect a small proportion of schools, it is difficult to prove that no attack on a school means that attacks have been prevented, much less that learners' psychosocial wellbeing improved.

12 This tool was created and tested by Dr. Nikhit D'Sa for Save the Children in 2017-2019. See also the presentation on pilot in Iraq, "Programming for Children's Social and Emotional Wellbeing: Lessons from Iraq." (Save the Children, 2017a).

Indicators to measure the physical protection of education are found in the literature of a variety of sectors: disaster risk reduction, Safe School, WASH, INEE Minimum Standards, Education Cluster, and the security literature. Indicators vary in nature, from a technical engineer's inspection of infrastructure (GADRRRES, 2014), to self-reported perceptions of feeling safe in the school building or en route to and from school.[13] The typical indicators recommended are binary—the learning site either has a boundary wall, or it does not, a school has safe transportation for children to school, or it does not. Some indicators may be continuous, such as what proportion of a bombed school is now safe for children, or discrete, which may be the number of classrooms that have fortified steel doors with locks.

Methods of collection to measure physical safety are likely to be observation site visits, such as an external researcher-observer inspecting the school to check for a predetermined list of observable characteristics. Another method is self-assessed feelings of being safe at or en route to and from school.

The unit of measurement in these indicators is commonly the school, rather than the individual. It is difficult to judge physical safety at the whole-school level without a concrete list of what that means. This implies the need for tools to measure lower order items, such as emergency exit routes, safe houses for teachers, bomb shelters, etc. To address this need, most indicators include language about contextualization, such as "agreed upon safety criteria" or "minimum standards for safe learning." Tools, such as Save the Children's International Learning Environments Together, consist of survey questions on lower order items, as well as guidance on methods for adapting to a particular context (Alkhaldi Bashir et al., 2018).

Below is a sample of indicators for measuring physical security.

Table 5. Indicators for measuring physical security

RELATED INDICATORS	SOURCE
Number and percentage of new school construction that is monitored for compliance with (a) safe school site selection, (b) safe school design, (c) safe school construction Estimated cost of repair or replacement of classrooms, and of materials disaggregated by specific intensive hazard impacts, non-specific extensive hazard impacts, and use of schools as temporary shelters	GADRRRES. (2015). CSS Targets and Indicators and Concept Note for Phase Two.
23.2.1. Percentage of non-formal or formal learning centers surveyed in target location that meet 100% of agreed upon safety criteria and universal design standards 23.2.8. Percentage of formal and non-formal learning centers previously identified as unsafe that are upgraded to meet safety requirements	The Alliance. (2020). Child Protection Minimum Standards Annex: Table of Indicators. Standard 23.

13 Self-reported perceptions of feeling safe can be seen in INEE Minimum Standards Indicator 2.2.3 and related guidance notes (pilot, provided by key informant). The INEE Minimum Standards Indicator Framework is expected to be published in early 2021.

Number of learning spaces established or restored to minimum standards for safe learning	DG ECHO. (2019). Revised DG ECHO EIE KOIs/KRIs (provided by key informant).
2.2.3. Percentage of children, teachers, and other staff members reporting feeling safe in school and on the way to/from school	INEE Minimum Standards Indicators, Access and Learning Standard 2. (pilot, provided by key informant)[14]
Percentage increase in the number of school buildings that are safe and can resist impacts of natural hazards Percentage decrease in number of children recruited by armed groups, whether at school or on their way to/from school	UNESCO IIEP & PEIC. (2015). Safety, Resilience, and Social Cohesion: A Guide for Education Sector Planners. Monitoring and Evaluation.
Percentage of learning sites supported by X project that are safe and accessible to all children	Save the Children. (2018). Global Results Framework Draft (provided by key informant).
Percentage of targeted crisis-affected children and youth (M/F) benefiting from safe and protective temporary or rehabilitated classroom equipped at minimum/agreed standards Number or percentage of targeted crisis-affected children and youth benefitting from the establishment/restoration of safe, protective, and equipped learning environments at minimum/agreed standards	Global Education Cluster via 2018 INEE Indicator Mapping (provided by key informant).
Share of ECW-supported schools and learning environments meeting safe learning standards (once a standard indicator is approved)	ECW. (2017). Results Framework Indicator Technical Detail.
How do students stay safe on the route to and from school from conflict-related risks?	Heaner. (2018). Safer Learning Environments Assessment Toolkit. USAID and ECCN. Rapid Education and Risk Analysis Tools 9, 10

14 The INEE Minimum Standards Indicator Framework is expected to be published in early 2021.

3.4 Physical Security Risk Management

(a) Concepts

The scope of this paper is limited to physical insecurity due to external risks of armed conflict and violence. Although physical security is only one of many hazards, many disaster risk management concepts apply. Disaster risk is widely recognized as "the consequence of the interaction between a hazard and the characteristics that make people and places vulnerable and exposed," except as mitigated by the capacity to reduce these factors (Prevention Web, 2020, para. 2). Disaster risk management can be thought of as the implementation of disaster risk reduction, which includes building the capacity of a community, organization, or society to anticipate, cope with, resist, and recover from disasters.

A framework widely recognized in disaster risk management is the Comprehensive School Safety Framework adopted by UN agencies and development actors (UNISDR & GADRRRES, 2017). The framework structure includes three "pillars": safe learning facilities, school safety management, and risk education and resilience education at the classroom level. The related Association of Southeast Asian Nations Common Framework for Comprehensive School Safety 2015-2030 operationalizes the global Comprehensive School Safety Framework for the Asian context (ASEAN Safe Schools Initiative, 2015). Hazards to children posed by external conflict or violence can be managed and measured using such a framework.

The Comprehensive School Safety Framework (UNISDR & GADRRRES, 2017)

Adopted by UN agencies and development actors globally, the framework aims to

1. protect learners and education workers from death, injury, and harm in schools;
2. plan for educational continuity in the face of all expected hazards and threats; and
3. strengthen risk reduction and resilience through education.

The framework places specific responsibility on those charged with the construction, repair, and retrofitting of school buildings.

Physical security risk literature include activities such as risk mapping, analysis and monitoring, resilience mapping, early warning systems, call or SMS notification systems, contingency planning, risk prevention training for education personnel and students, preparedness, mitigation, and response. For example, if a risk assessment finds a high probability of an armed attack on a school, a mitigation response could be to adjust the school schedules according to patterns of insecurity.

One example of risk reduction through education that is particularly important to the focus of this study on external threats of conflict is life-saving messages, which is education content that seeks to change learners' behavior to reduce possible endangerment. Life-saving messages can include practicing school drills for violence scenarios,

learning what to do during an attack, teaching how to avoid recruitment by armed groups, providing information on an early warning system, and alerting students to stay home when violence is predicted or the school facility is used by armed groups. For example, Mine Risk Education is defined by the International Mine Action Standards as "activities which seek to reduce the risk of injury from mines . . . by raising awareness and promoting behavioural change, including public information dissemination, education and training, and community mine action liaison" (IMAS, 2005, p. 7).

(b) Measurement

The library of disaster risk management for education is vast. [15] Although not narrowly focused on physical security in areas of conflict, much of what has been written on measurement is still applicable. Generally, disaster risk manuals use the results-based management model: "orienting all action and use of resources towards achieving clearly defined and demonstrable results" (Food and Agriculture Organization, 2020, para. 1), or in other words, using a logical or results framework to describe the theory of how the combined interventions (activities and outputs) will contribute to overall outcomes or goals. Methods for measuring disaster risk reduction projects and frameworks include administrative data, key informant interviews, self-report surveys, and assessments of knowledge, attitudes, and practices related to risk management.

Indicators for school-related protection through disaster risk management exist for all levels of a results framework and for the many disaster risk management interventions. At the outcome level, indicators generally relate to lives saved, as in the GADRRRES indicators, and to children's perceptions of feeling safe, as in the INEE indicator "reporting feeling safe in school." At lower output and activity levels, indicators relate to capacity-building—i.e., the knowledge, skills, and attitudes of school personnel and students; see, for example, Comprehensive Safe Schools indicators for the "number of people accredited in disaster risk reduction and management (DRRM)" (GADRRRES, 2015).

Notably, a revised set of CSS targets and indicators for school safety in 2020-2021 is forthcoming from the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector.[16]

15 See, for example, the Philippines Department of Education's School Disaster Risk Reduction Management Manual, (Bayangos & Relayson, n.d., p. 8); and section 6.1 of the UNICEF (2012) Climate Change Adaptation and Disaster Risk Reduction in the Education Sector.

16 GADRRRES Workplan 2020-2021, (GADRRRES, personal communication, 2020)

Table 6. Indicators for physical security risk management

RELATED INDICATORS	SOURCE
Number of deaths and severe injuries in schools disaggregated by type of hazard, students and staff, education level (early childhood, primary, secondary, post-secondary), males and females Number of days of school closure due to hazard impacts Number of days of school closure made up through school calendar adjustments Number of students displaced from school for number of days Number of hours reduction in school day for number of days Percentage increase in average class size for number of days Number of students relocated to temporary learning facilities School attendance sampled 5, 10, 20, 30, 40, 50 school days after impact, and cohort at beginning of next school year Number of students not returning to school	GADRRRES. (2015). CSS Targets and Indicators and Concept Note for Phase Two.
Percentage of children, teachers, and other staff reporting feeling safe in school and on the way to/from school	INEE Minimum Standards Indicators, Access and Learning Standard 2 (pilot, provided by key informant).[17]
Extent to which measures are taken by the educational authorities or staff to reduce the exposure to risk of themselves, the children, the parents, and the educational facilities Authorities' ownership of structured analysis and adequate decision-making to integrate and respond to the impact of armed violence in the provision of basic essential services	ICRC. (2018a). Access to Education Project Planning and Monitoring Tool Entries (provided by key informant).
Percentage of ECW-supported schools that meet safe learning environment standards, including disaster risk reduction and gender-specific issues	ECW. (2017). Results Framework Indicator Technical Detail.
Number of teachers and other education personnel showing increased knowledge and skills to address the protection needs of girls and boys	ECHO. (2019). Revised DG ECHO EIE KOIs/KRIs (provided by key informant).
Number of school risk and resource mapping conducted Number of risk reduction plans in place	Save the Children. (2017b). Schools as Zones of Peace.
Number and percentage of individuals accredited in DRRM through pre-service training programs Number and percentage of individuals accredited in DRRM through in-service training programs Number and percentage of individuals trained through on-site, and computer-aided instruction Number and percentage of students having participated in needs assessment and planning	Save the Children (2018). Global Results Framework Draft (provided by key informant).

17 The INEE Minimum Standards Indicator Framework is expected to be published in early 2021.

Twitter posts that refer to attacks on schools, school facilities, or teachers and students (a developing model, but potentially applicable to project catchment area and measurement external threats)	Qatar Computing Research Institute's Artificial Intelligence for Digital Response Platform (Centre for Humdata, 2019).
Number of validated contingency plans Number of service centers trained on the [disaster risk management system] Number of professionals trained on the [disaster risk management system] Number of absences due to medical leave Number of requests for transfers by professional per site/service unit Number of unfilled vacancies per site/service unit Proportion of activities cancelled per institution period Number of site closures Number of "risk events" by event type Percentage of professionals' recognition related to the security of the site/service unit Average cost of closing sites/service units, by type	ICRC Brazil. (2019). Monitoring and Assessing the Impacts of Violence on the Provision of Essential Public Services and Implementation of AMS (provided by key informant).
Percentage of self-protection mechanisms existing (and/or established) and reinforced by the ICRC in targeted communities	ICRC. (2018a). Access to Education Project Planning and Monitoring Tool Entry (provided by key informant).
Number of children reached by life-saving messages Number of adults reached by life-saving messages Number of victims of explosive devices (people or animals) in the last 12 months in or near the village? If so, where? How many? What type of land is affected by mines or ERW?	UNICEF. (2008). Emergency Mine Risk Education Toolkit.
Sample items on the UNICEF Knowledge Attitudes and Practices Survey[18] include: Percentage of trainees who know how to avoid a mine/Uxo accident? Percentage of trainees that know what makes a mine explode? Percentage of trainees who know what to do if they see a friend or family member lying injured in a minefield; what would you do?	UNICEF. (2008). Emergency Mine Risk Education Toolkit.

18 "A Knowledge, Attitude and Practices (KAP) survey is a quantitative method (predefined questions formatted in standardized questionnaires) that provides access to quantitative and qualitative information." (USAID & SPRING, 2011).

3.5 Contingency Education Delivery

(a) Concepts

For this review, contingency education delivery refers to actions that have the aim of continuing education when disrupted by external threats of conflict or violence.[19] It includes, inter alia, changing school schedules around periods of insecurity, interactive radio instruction when safe access to schools is impossible, home schooling when schools are occupied by armed groups, distance learning when schools have been destroyed, and temporary learning spaces for children who miss out on schooling due to displacement.

UNICEF in South Sudan (2016) defines temporary learning spaces (TLSs) as "the demarcated spaces for teachers and students to conduct teaching and learning when they can't do so in their school because of displacement or damage/destruction of the school. TLSs can and should be established quickly, yet they also lay a foundation for restarting formal education and enrolling children who were previously out of school. TLSs can also be used as an entry point for protection, nutrition and health services, and to develop communication channels with affected populations" (para. 1).

Education Development Center (EDC) summarizes the versions of distance education as print-based, audio-based, television-based, multimedia-based, web-based, and mobile technologies (Burns, 2011, p. 10). Convergence and blending of these versions is evolving (especially during the COVID-19 pandemic). Distance education can be used to teach children and to prepare teachers in pre-service or in-service training.

For example, in Niger "it was reported that, in 2016, the Ministry of Education of Niger, together with UNICEF, relocated to safer locations 99 of 166 schools that had been closed due to insecurity. In the Diffa region, it was reported by UNOCHA that 74 schools had been relocated, but 30 schools remained closed at the time of reporting (January 2017). Alternative education is delivered via a radio program for children who cannot travel to school due to insecurity" (GCPEA, 2020, para. "Alternative Delivery of Education Examples of Good Practice").

(b) Measurement

The Niger example above is a typical alternative education good practice statement found in the school-based protection from attack literature. It mentions contingency education delivery interventions, such as school relocation and remote radio instruction. However, a measurement specialist may be left asking, to what outcome? Evaluations linking these interventions with improved psychosocial wellbeing are scarce. This is an indicative opportunity, where more robust research and sharing of findings could bolster the evidence base of contingency education delivery interventions, including their relationship with access outcomes and psychosocial wellbeing.

With regard to distance education, EDC summarizes some of the unique measurement challenges, including attrition rates, the need for measures other than standardized achievement tests, students' different opportunities to access devices, learners' differ-

19 Definition informed by key informant interview with ICRC, September 2020.

ent starting points, and program implementation. The EDC manual titled Distance Education for Teacher Training: Modes, Models, and Method (Burns, 2011) includes guidance on measurement methods, decision trees for tool selection and design, program/logic theory, and data visualization.

However, of the distance education interventions, interactive radio instruction (IRI) may provide some of the most robust examples of measurement methods, as well as evidence of linkages to access in particular. The World Bank defines IRI as "a distance education system that combines radio broadcasts with active learning to improve educational quality and teaching practices. IRI has been in use for more than 25 years and has demonstrated that it can be effective on a large scale at low cost" (Trucano, 2010, para. 2). EDC is a leading implementer of this contingency education delivery method and a generator of robust meta-analysis evidence of its effectiveness in learning gains, most notably in conflict-affected Pakistan (Ho & Thukral, 2009). See the list of outcome measures developed in the table below. Unfortunately, the dependent variables of interest in the study did not include psychosocial wellbeing, so no measurement guidance was found to support this paper.

Indicators related to the several types of contingency education delivery discussed are listed in the table below. Interventions such as changing school schedules could be measured by their success in continued education through, for example, maintaining or gaining enrollment or attendance rates before and after the intervention. The standard education participation indicators are listed first.

Table 7. Indicators for contingency education delivery

RELATED INDICATORS	SOURCE
Enrollment rate Attendance rate (mean) Dropout rate Annual retention rate Transition back to mainstream schooling	See Access to Education, section 2.1.
Student learning outcomes by subject area • Mathematics • Local language literacy • English • Social studies • Student learning outcomes in early childhood education • Teacher professional development observation outcomes • Student learning outcomes with marginalized populations • Girls and boys • Students in rural and urban areas • Students in fragile states • Orphans and vulnerable children	Ho & Thukral. (2009). Tuned in to Student Success: Assessing the Impact of IRI, p. 14.

Qualitative, structured interviews, records, and portfolio review to assess: **Outputs** • Did teachers acquire the intended knowledge and skills? • Did teachers effectively apply their new knowledge and skills? **Outcomes** • What was the impact on students? • Did it affect student performance/achievement? • Did it influence students' emotional/physical wellbeing? • Are students more confident as learners? Is attendance increasing?	Guskey. (2000). Five Levels of Evaluating Professional Development, cited in Burns. (2011). Distance Education for Teacher Training: Modes, Models, and Methods, p. 266.
Percentage of targeted learning spaces with disaster risk reduction (DRR) processes/measures in place	INEE Minimum Standards Indicator 2.4 (2021). OCHA Indicator Registry

3.6 Advocacy for School-based Security

(a) Concepts

This section focuses on two types of advocacy for school-based security: (1) monitoring attacks and (2) negotiating with armed groups. The two interventions relate. Monitoring attacks can be a useful tool at the school level to inform negotiations with armed groups, the ultimate aim being to change behavior in order to make schools zones of peace.

Definitions of monitoring attacks on and military use of school are guided by two primary sources. The GCPEA and the Monitoring and Reporting Mechanism on Six Grave Violations Against Children (MRM). Both indicate the highly sensitive nature of monitoring and reporting on attacks and the military's use of schools. GCPEA, which publishes the biannual global report, "Education Under Attack," explains that "monitoring is the systematic, standardized collection of information. Monitoring of attacks on education helps us to see how much of the picture we are capturing and how much we are missing. Reporting is the sharing of information collected, although not necessarily in public and must be done in a timely enough period to be useful" (GCPEA, 2018).

A UN process, the 1612 MRM documents six grave violations perpetrated against children in situations of armed conflict, including attacks on schools. Parties to a conflict that commit any of the "trigger violations" are listed in the annexes of the secretary-general's annual report to the UN Security Council on the situation of children and armed conflict (Office of the Special Representative of the Secretary-General for Children et al., 2014). The MRM reporting protocol is standardized and defined in detail in formal policy and legal frameworks, and in a more informal guide for non-UN entities, such as non-governmental organizations responding to attacks with education programming (UNICEF, 2014; Office of the Special Representative of the Secretary-General for Children et al., 2014; Watchlist on Children and Armed Conflict, 2015). Lastly, data on attacks may be collected by local education groups and/or the Education Cluster through individual and at times parallel processes to that of the MRM, which is run by child protection.

The GCPEA defines dialogue and negotiations with armed groups and armed forces as consensus processes between parties to the conflict and stakeholders regarding behaviors permissible on learning sites (GCPEA, 2011). Agreements between the actors may comprise banning weapons, prohibiting armed groups' use of school grounds, limiting the use of schools as election polling centers, and prohibiting political or armed group media. Dialogues may include training school communities and armed groups on children's rights, establishing codes of conduct on school grounds, socializing about risks to children if schools are used by armed forces. Similarly, Geneva Call's (2020) documentation of dialogues of armed non-state actors has included discussions of protection of children and education.

One model for negotiations is the process to create school-level codes of conduct (GCPEA, 2011, p. 18). The steps can be summarized as follows:

1. Raise awareness of the zones of peace concept with multi-stakeholder meetings
2. Assess the landscape: needs, expectations, capacities, etc.
3. Formulate the code of conduct for zones of peace
4. Validate the code
5. Declare zones of peace publicly

Indicators presumably could measure each step in this process.

(b) Measurement

In this section, we first discuss the measurement of negotiations, followed by the measurement of attacks.

The EIE and CPHA literature offer few indicators specific to negotiations between parties to the conflict and education stakeholders, which can vary from output level and the number of people trained in how to manage a dialogue, to outcome level and the number of attacks on schools. For example, in the USAID review of all education indicators used in crisis and conflict contexts, the section related to safety did not include any indicators for armed group negotiations (USAID & ECCN, 2016).

The indicators found include qualitative questions about process, such as the ECCN indicator: how do gangs or armed groups influence the environment inside the school? UNESCO IIEP offers a pre/post quantitative indicator, decrease in attacks, but this does not measure whether the decrease was caused by negotiations. Methods mentioned in the schools as zones of peace case studies include focus groups, key informant interviews, secondary data review, and site observations (Webb & Lee, 2017).

Additional indicators can be envisaged based on the schools as zones of peace process outlined above, such as the number of awareness-raising events on codes of conduct, the number of attendees at code of conduct writing workshops, or the number of armed groups or gangs signing a school zones of peace code. Although specific to school occupation as a shelter during natural disasters, the GADRRRES indicators below could be adapted easily to contexts of military use/occupation of schools. Although the GCPEA literature has not yet promoted an explicit indicator list, additional indicators could be derived from the anecdotal evidence presented for negotiations with armed groups.

Table 8. Indicators for measurement of negotiations

RELATED INDICATORS	SOURCE
How do gangs or armed groups influence the environment inside the school?	Heaner. (2018). Safer Learning Environments Assessment Toolkit. USAID and ECCN. Rapid Education and Risk Analysis Tools 9, 10
Percentage decrease in number of attacks on education facilities, personnel, and students	UNESCO IIEP & PEIC. (2015). Safety, Resilience, and Social Cohesion: A Guide for Education Sector Planners. Monitoring and Evaluation.
Extent to which weapons bearers respect the right to access to education and take measures to improve access	ICRC. (2018a). Access to Education Project Planning and Monitoring Tool Entry (provided by key informant).
Number of attacks on schools Number of people trained on community dialogue for codes of conduct	GCPEA. (2014) Protecting Education personnel from Targeted Attack in Conflict-Affected Countries.
Disaster management and education authorities have identified the schools expected to be used as temporary evacuation centers for disasters with early warning, and as temporary collective centers or shelters in the event of a major hazard leading to significant impact. Planning, support, and capacity development are being provided at a sub-national level to meet these needs	GADRRRES. (2015). CSS Targets and Indicators and Concept Note for Phase Two.

Measuring the effectiveness of the monitoring of attacks is elusive because a counterfactual is not feasible, and each country's situation has its own conflict-peace trajectory. One cannot compare the number of attacks on schools in a state that has a monitoring and reporting mechanism to a context that does not have one. An additional complication is attributing a decrease in the number of attacks to monitoring and reporting them. There is a similar dearth of evidence about whether monitoring triggers education program response. A Watchlist review of the MRM in two countries had ambiguous findings on the effectiveness of the MRM as a trigger for response: "There are differing expectations about the MRM's goals and purpose among the actors involved in its implementation. For example, some humanitarian actors felt the MRM could strengthen programmatic responses for victims while others, primarily UN respondents, did not expect the MRM to inform program design" (Watchlist on Children and Armed Conflict, 2016)

There is no formal GCPEA list of indicators or recommended methods. However, mapping the definitions and the numerical data in the case studies in the "Education Under Attack" (GCPEA, 2018) report can give rise to a set of quantitative indicators, which are listed below. We acknowledge that these are not complete indicators, and several would be more informative if they had a comparator or denominator. It is plausible that some of the indicators mentioned in the disaster risk management section could be applicable, such as the number of days a school was closed. Process indicators at the output level from the other interventions could also be applied here, such as the number of people trained in how to record and report attacks on schools.

Table 9. Indicators for measurement of attacks

RELATED INDICATORS	SOURCE
Number of attacks directed at students and educators at education institutions (including abduction, recruitment into armed groups, forced labor, sexual violence, targeted killings, threats and harassment, and other violations)	GCPEA. (2018). Education Under Attack.
Number of attacks while going to or coming from an education institution or elsewhere because of status as students or educators	
Number of attacks on pro-education activists, including teacher unions or any teaching group, because of their activism	
Number of attacks on education personnel, such as administrators and maintenance workers, and education aid workers	
Number of schools occupied by armed forces or non-state armed groups	
Number of schools used as bases, barracks, and temporary shelters for those associated with fighting forces, or as fighting positions, or for weapons storage, detention, training, or interrogation	

CONCLUSION

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In conclusion, this review, primarily of the CPHA and EIE practitioner literature, discovered many briefs, guidance notes, and indicators on the topics of interest, which can inform measurement in both sectors. However, in the public domain it did not find a study measuring the specified relationship of the four security interventions with access to education and/or psychosocial wellbeing. Generally, although practitioner guidance frequently describes what could be measured, it less frequently describes what methods and robust tools to use to measure it. This is particularly problematic in measuring more difficult concepts, such as psychosocial wellbeing, especially in the conflict-affected contexts of interest, where local expertise to help guide measurement may be scarce. These barriers are likely surmountable if donors and implementers increase their investment in results-based management design, in CPHA and EIE collaborative project design and implementation, including research methods in more program guidance documents, and in having more transparent project measurement methods and evaluations.

After all, although conventional wisdom may tell us that safer learners have better access to education and enhanced psychosocial wellbeing, without the robust evidence to articulate this relationship, our advocacy on the issue will fall short of its potential.

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