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EDUCATE A CHILD

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Reducing risk factors: Helping Children Stay in School

Occasional Paper #4

Educate A Child (EAC)

December 2018

Foreword

This is the fourth Educate A Child (EAC) Occasional Paper. The purpose of our occasional papers series is to recognize and bring topics pertinent to out of school children (OOSC) to the fore for discussion and further elaboration. As the global community embarks on the ambitious Sustainable Development Goals (SDGs) that it has committed to reach by 2030, it is incumbent upon all of us to consider how we will attain them.

SDG4, on education, is ambitious and it is predicated on young children successfully completing primary education so that they can transition to subsequent levels. From its beginning, EAC has been concerned with OOSC accessing and completing a full course of primary education. This means that the primary education on offer needs to be of sufficient quality--it also means that formerly OOSC need to stay on their learning track rather than dropping out.

To this end, EAC decided to undertake some action-research to attempt to ascertain how those in an education programme who are most vulnerable, most at risk of dropping out can be supported so that they persist. In this first step towards that objective, we outline some of the characteristics that appear to be most relevant to the retention of these children. Interestingly, while much of the current research on retention focusses on in-school factors, our initial work suggest that for the most vulnerable, the hardest to keep, it may be out of school factors that are critical. We are eager to see if efforts on the ground bear out this hypothesis.

We welcome feedback on this paper and look forward to the results of our modest future investments in projects that are designed to retain the most “at risk” children.

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Educate A Child
December 2018

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Introduction

Educate A Child (EAC) is built upon the premise that all children have a right to an education. The focus of this programme of the Education Above All foundation in Qatar is to reach marginalized children who face barriers restricting their participation in a foundational primary education. Operationalizing the vision of Her Highness Sheikha Moza bint Nasser, EAC is reaching millions of children at the primary level who are out of school and not participating in any education programme. Since its inception in 2012, EAC has both activated a highly successful programme and learned from experience and research on the out of school population primarily in the 50 developing countries where EAC has supported projects.

One aspect of reaching marginalized children that emerges as a concern is those who do not stay in an education programme, once they are identified and enrolled. This revolving door aspect of primary education impacts not only the children who remain stuck behind barriers that restrict them, but also the sustainability of interventions to find and educate these children. An examination of the risk factors, both in school and in the environment from which children emerge, is worth pursuing. To that end, this Occasional Paper offers a review of the literature on risk factors for participation in a full cycle of primary education, anecdotal evidence from field experience, and possible courses of action to address these factors.

Literature Review

A few key sources that capture the main approaches to understanding dropout and measuring its risk among children attending primary and secondary school provide the context for this review. These main sources are:

1. USAID School Dropout Prevention Project (SDPP), implemented by Creative Associates in collaboration with Mathematica Policy Research in four countries;
2. UNICEF and UNESCO Institute for Statistics (UIS) Global Out-of-School Children Initiative (OOSCI), implemented at the global and regional levels by the global agencies;¹¹
3. University of Sussex's Consortium for Research on Educational Access, Transition, and Equity (CREATE) work on zones of exclusion.

This literature was further supplemented with newer studies from recent years, a review of some literature on school dropout in the United States, and resource recommendations suggested during key informant interviews conducted with experts on dropout. It is critical to understand the underlying drivers of student exit from school, the so- called “push and pull factors” that make a student more likely to disengage and drop out. These may include, on the one hand, economic or

¹ Review of UNICEF and UIS sources includes the *UNICEF Series on Education Participation and Dropout Prevention* (UNICEF and UIS, 2016), a resource that builds on OOSCI work.

social disadvantages due to the children's background or belief systems; or in-school factors, i.e., lack of safety, inadequate school infrastructure, and quality of instruction, on the other.

Understanding Dropout Causes

There is broad consensus in the literature that dropout is a process, one often preceded by repeated and sometimes prolonged absenteeism and a “revolving door” of reenrolment. As Doll et al. (2013) put it, “[t]he cause of a student dropping out is often termed as the antecedent of dropout because it refers to the pivotal event which leads to dropout. This event, however, is the culmination of a much longer process of leaving school that began long before the date that a student actually discontinues attendance.” In other words, the decision for students to no longer attend school may be a result of an extended struggle during which they, or their families, determine that the costs of overcoming barriers to schooling are far greater than the expected benefits of school completion.

It follows that students more vulnerable in society at large—due to poverty, chronic illness or disability, gender-based expectations, minority status, or other factors—would find barriers in cost, distance, quality, or safety associated with local schooling more difficult to surmount. As SDPP summarizes (Table 1), nearly every imaginable dimension of social disadvantage surfaced in some form as a contributing factor to withdrawal from school. Furthermore, intersections of disadvantage, where such dimensions are layered onto each other, compound the problem, making it more challenging for students and families to cope with barriers that their more fortunate peers may not encounter. Such disadvantages help shape attitudes towards the value of education, with parents or students perceiving, for example, that education cannot change a child's life trajectory and therefore is an unnecessary expense.

These background characteristics can be responsible—at least in part—for low school engagement and poor academic performance and, once a student is struggling, often make it harder for a child to rebound academically. As SDPP explains, certain factors “can undermine a family's ability to keep a child in school. In these cases, you may see the pattern of temporary and sporadic dropout, where the child attends for part of the school year until circumstances force them out” (SDPP, 2015). This strongly echoes research from the Girls Education Challenge (GEC) programme funded by DfID, on “revolving door” schooling, where girls' education is punctuated by temporary withdrawals, often due to financial constraints or other contextual factors that end in permanent dropout (GEC, 2016).

UIS/UNICEF through its OOSCI effort emphasizes the importance of social disadvantage in understanding educational vulnerability at large—in both initial access and subsequent retention and completion of schooling. UNICEF finds that being in conflict-affected environments, being a girl, having work responsibilities (child labour), language, and disability, in particular, are highly predictive of being out of school. Consequently, children with a combination of such factors are less likely to remain in school once enrolled.

Table 1. Background and demographic factors shown to predict dropout (N = number of studies reviewed)

Factor	Studies from the United States and OECD (N = 16)	Studies from developing countries (N = 26)
Individual background characteristics		
Higher age at enrolment	--	5 (19% of total)
Gender	3 (19% of total) Boys more likely to drop out	9 (35% of total) Girls more likely to drop out
Disability or frequent illness/ poor health	5 (31%)	12 (46%)
Family background characteristics		
Poverty or low socioeconomic status	8 (50%)	19 (73%)
Minority (ethnic, caste, or language)	4 (25%)	7 (27%)
Low education level of parents	4 (25%)	12 (46%)
Not living with both natural parents	6 (38%)	7 (27%)
Parent unemployed	2 (13%)	4 (15%)
Large number of siblings, especially young siblings	3 (19%)	5 (19%)
Family disruption (e.g., divorce, death)	4 (25%)	5 (19%)
High family mobility	6 (38%)	7 (27%)

Source: USAID School Dropout Prevention Pilot Program (SDPP) (2011). Review of the Literature

Because most of these background characteristics are stable over time, they contribute to gradual withdrawal, leading to nonparticipation as the burden increases or is compounded by multiple layers of disadvantage. However, sudden shifts in probability of dropout may also occur as a result of external shocks, such as sudden economic shocks to the family or community, new responsibilities (such as those following pregnancy and early marriage), national exams, emergency situations, migration, sickness, and loss of a family member (CREATE, 2011; Hunt, 2008; Sabates et al., 2010). More broadly, outbreaks of violent conflict can dramatically affect the supply of education through the destruction of school systems, while also reducing demand as families relocate to safety (UIS and UNICEF, 2015a).

Even as factors listed in Table 1 are notable for their effects on dropout across country contexts, the magnitude of their impact and the way in which these factors compound and amplify each other

vary from country to country and, in many cases, within countries. Contextualization and situational analyses are recommended by most major sources (SDPP, OOSCI, and CREATE) as a way of establishing the combination of background root causes of dropout that must inform the development of solutions.

Academic precursors of dropout

The extended nature of dropout, whereby gradual withdrawal is driven by the multitude of factors described in the dropout literature, means that, apart from sudden changes in circumstances due to external shocks, dropout risk can be observed and monitored. The literature describes a process of disengagement that builds over time if it goes unnoticed and the root causes are not addressed. In the U.S literature, scholars distinguish “push,” “pull,” and “falling out” mechanisms in that process (Hammond et al., 2007), with push factors being school-driven consequences for students’ education, such as forced withdrawal following (low) attendance at school, (poor) academic performance, or (mis)behaviour. Pull factors; on the other hand, come from outside the school environment, such as an illness that keeps a child from school (Hammond et al., 2007; Jordan et al., 1999; Lehr et al., 2004). Watt and Roessingh (1994, as cited in Doll et al., 2013) also point out a third mechanism, called “falling out,” which refers to gradual disillusionment and disengagement with school without an active push or pull factor.

Depending on the context, students from similar backgrounds with similar school experiences may dropout due to different mechanisms. For example, poor families may decide that the economic cost of sending children to school outstrips benefits especially if children have low academic marks. Low-performing students may be particularly vulnerable at key moments that require additional investment, such as high-stakes examinations that families must pay to have children take. In these cases, children are pulled out of school by financial circumstances at home. Alternatively, children from poorer families may have less time for school work because of the competing labour demands and, as a result, may have low academic performance, giving schools reason to administratively exclude students, either in accordance with school policies or to boost overall school marks by forcing out the lowest performers (CREATE, 2011; SDPP, 2011). In such cases, children are pushed out by the school. In these cases, academic and background or demographic factors are interconnected: more vulnerable students are more likely to encounter barriers to schooling that may pull them out of school or leave them to gradually fall out, and they are more likely to be academically behind or misbehave, leading schools to push them out.

Indeed, regardless of the underlying mechanism through which dropout takes place, the actual process is similar for different types of students and schooling environments. Students may feel increasing pressure from home or the community, or experience continued struggles in overcoming barriers to regular attendance and school performance. They fall behind in their performance, grow less engaged in class, attend less and less regularly, and thereby continuously worsen the gap between themselves and their peers in better circumstances, ultimately making it more difficult to attain expected levels of achievement. In some cases, students' perceptions of the value of education grows more negative and their behaviour more disruptive. Other "precursors" of dropout include repetition, late or overage enrolment (UIS/ UNICEF, 2015), absenteeism, and temporary withdrawals from school (Hunt, 2008; Hammond et al., 2007, USAID/SDPP 2015). A study done in the U.S. reveals that students may feel an increasing alienation from school up to three years before they decide to drop out (Bridgeland et al., 2006).

Figure 1. Dropout as a Process

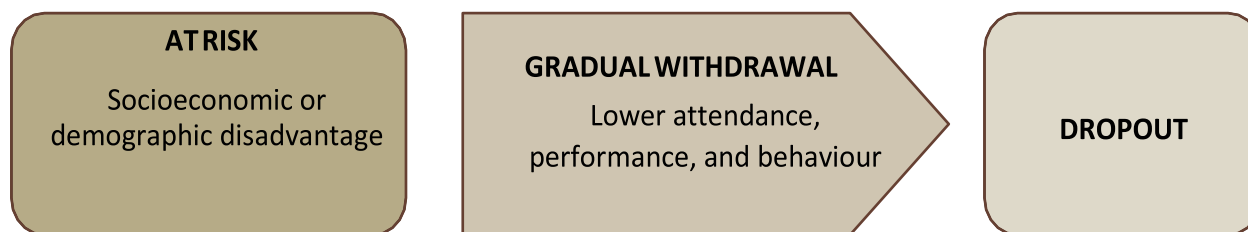


Table 2, borrowed from a USAID SDPP review of research that included studies from CREATE and OOSCI, shows the extent to which academic proxies—such as low performance, poor attendance, and other behaviours in school—have been shown to predict school dropout. In Table 2, academic precursors show up in more studies than the background and demographic factors shown in Table 1 above. However, what is also notable is the difference between developed and developing countries: whereas in developed countries, low achievement and attendance came up in the vast majority of studies, in developing countries, each of these predictors was noted as significant in only about a third. This variance may be due to the predominance of background characteristics in developing countries contributing to lack of participation in education, whereas developed countries have larger populations of students in school leading to attribution of academic performance and attendance as predictors of dropout.

Table 2. Studies finding academic factors significantly related to school dropout (N = number of studies)

Factor	Studies from the United States and OECD countries (N = 16)	Studies from developing countries (N = 26)
School performance		
Low achievement	13 (81% of total)	9 (35% of total)
Repetition or being overage for grade	8 (50%)	10 (38%)
School engagement		
Poor attendance	11 (69%)	8 (31%)
Low educational expectations	3 (19%)	--
Low commitment to school or lack of interest in school	9 (56%)	10 (38%)
School behaviour		
Misbehaviour/delinquency	8 (50%)	2 (8%)

Source: USAID School Dropout Prevention Pilot Program (SDPP) (2011). Review of the Literature

In sum, across the plethora of factors that may influence dropout, the actual event of withdrawal is most often preceded by irregular student attendance, low performance, and passive or disruptive behaviour. This is significant as approaches to identifying and monitoring the children most at risk of dropout are considered, and seek to institute systems that both track those who are most at risk and assess the effectiveness of interventions targeting them. In the next section, these factors and their interconnections are addressed in frameworks offered by the three main sources reviewed: CREATE, OOSCI, and SDPP.

Measuring dropout risk

As discussed above, dropout results from a complex interaction of factors experienced over the course of a child's life. To effectively assess the risk that a child will drop out and provide support to that child, one must distil complicated circumstances into a set of core factors that are both highly indicative of risk and readily measurable. One approach—exemplified most strongly by the SDPP and CREATE frameworks and in new recommendations from UNICEF and UIS (2016) that build on the UIS/UNICEF Global Out of school Children Initiative work—prioritizes the measurement of factors signalling poor school performance and engagement, recognizing these as symptoms, regardless of the underlying causes, that typically precede dropout. An alternative approach promoted by the OOSCI and applied by UNICEF, looks instead to the background characteristics of individuals who are more likely to face obstacles in accessing school and keeping up with coursework and who are,

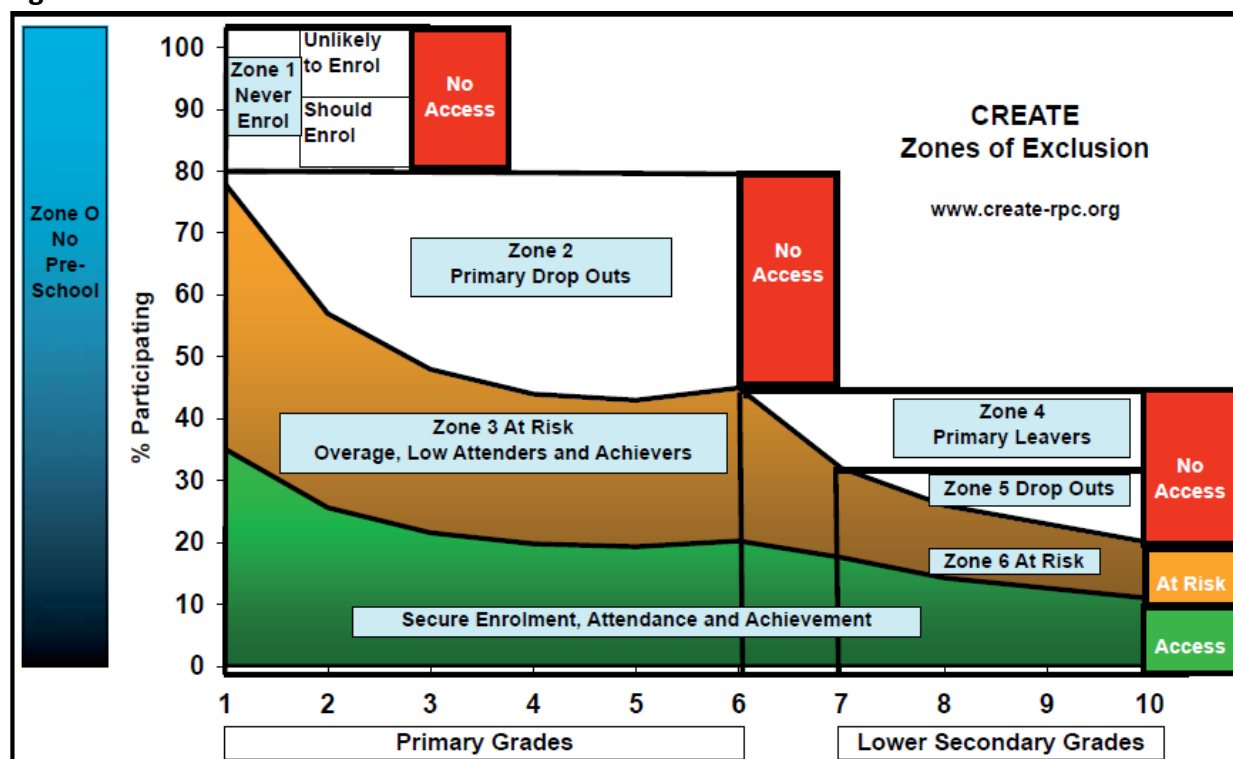
consequently, more likely to dropout. Table 3 summarizes the commonalities and discrepancies of the approaches.

The CREATE Zones of Exclusion framework articulates a category of children who are “silently excluded” (CREATE, 2011, p. 12), i.e., enrolled but not engaged with school or learning much, as those who are at risk of dropout. Specifically, a CREATE operational definition² classifies as silently excluded children who:

- attend less than 90% of scheduled class time;
- are two or more years over age for their grade; and
- are performing two or more years behind academically.

In the chart in Figure 2, at-risk children are placed in Zones 3 and 6, depending on their age ranges, and are identified mainly by school-level performance and attendance factors.

Figure 2. CREATE Zones of Exclusion Framework. Source: CREATE



Source: Consortium for Research on Educational Access, Transitions & Equity (CREATE) (2011). *Making Rights Realities: Researching Educational Access, Transitions and Equity*

The USAID School Dropout Prevention Programme suggests employing these same factors, plus behavioural factors, in Early Warning Systems (EWS) for dropout. SDPP stresses that these factors—Attendance, Behaviour, Coursework or the ABCs—are not only highly associated with dropout across contexts but also interrelated (e.g., poor attendance is likely to undermine coursework).

² CREATE emphasizes the importance of testing and refining the operational definition.

Additionally, and of crucial importance to gauging dropout risk, they can be translated into readily measurable indicators (SDPP, 2015).

Figure 3. The SDPP "ABC" Framework and illustrative indicators

DROPOUT PREDICTORS AND ILLUSTRATIVE INDICATORS	
Predictor:	Indicator:
Attendance	Number of days absent in target months Number of consecutive days absent in target months Number of days coming to school late or leaving early
Behavior	Homework assigned turned in on time and completed Participation in group activities
Coursework	Quarterly marks in reading/language and/or math in final quarter of previous year Teacher-made continuous assessment activities Homework assignments that are correct

Source: USAID SDPP. (2015). Preventing School Dropout: Early Warning System Programming Guide

Finally, the OOSCI framework mainly emphasizes demographic and background characteristics, with the exception of student performance, which is included among factors captured at the individual level. The five barriers highlighted by UNICEF—conflict, being a girl, child labour, language, and disability—point to key contextual factors that increase dropout risk. Aimed primarily at education policy makers at different levels of the education system, OOSCI emphasizes the use of system-wide, nationally representative data sources to identify populations at risk of school exclusion and dropout.

While, in contrast to the other two frameworks discussed, OOSCI does not offer approaches for classroom- level identification of students at risk of dropout, recent work from UNICEF and UIS (2016) that builds on OOSCI work does. This new guidance, which UNICEF and UIS advocate incorporating into Education Management Information Systems (EMIS), draws on research and recommendations from SDPP as well as OOSCI. It emphasizes the importance of tracking in-school risk factors—an adapted set of ABCs based on academic achievement, behaviour, and chronic absenteeism—and, as appropriate, also key individual and family background characteristics—disability (D), entry and progression in education (E),³ and family circumstances and peers (F).

³ In addition, UNICEF and UIS suggest looking at early adult responsibilities, which would impact post-primary school students more heavily than primary school students.

Table 3. A comparison of three key frameworks for measuring dropout risk

	CREATE	SDPP	UNICEF/UIS
Individual			
Individual background characteristics	✓	✓	✓ *
Girls	✓		✓ *
Overage for grade	✓		✓
Outside responsibilities/ child labour	✓	✓	✓ *
Peer influence		✓	✓
Perceptions of the value of education		✓	✓
School performance	✓	✓	✓ *
School engagement	✓	✓	✓
Repetition	✓		✓
School behaviour		✓	✓
Family			
Family background characteristics	✓	✓	✓
Family commitment to education	✓	✓	✓
Other			
Structure (access and affordability)	✓	✓	✓
Quality (functioning)	✓	✓	✓
School safety, environment	✓	✓	✓ *
Community	✓	✓	
Policy context	✓	✓	✓

** The OOSCI framework places particular emphasis on the importance of these factors whereas yellow highlights reflect the factors prioritized in the new UIS and UNICEF classroom-level monitoring recommendations. The additional check marks indicate factors noted to be relevant to dropout in either or both the OOSCI framework and the new recommendations.*

The factors that are emphasized as being most important to the identification of children at risk of dropout are highlighted in bright yellow and those that are important in light yellow in Table 3. While a range of factors is considered in the development of each framework, the frameworks differ where emphasis was placed, especially for factors of secondary importance. These differences likely reflect target audiences (teachers and school-level administrators, education system analysts, or policy makers) and the types of data that were most readily available. Notably, there is general agreement across all three frameworks that school performance and engagement are highly important in measuring dropout risk.

It is useful to consider the pros and cons of using these approaches in practice, as they apply to specific types and sources of data, and carry cost implications for programmes and/or education systems. As Figure 4 demonstrates, it is helpful to consider both sets of factors; however, the

feasibility of collecting both may depend on the availability of data and the presence of existing institutional processes for tracking a range of indicators or a regular basis.

Figure 4. Pros and cons of using demographic versus school-based information for identifying children at risk

	Advantages	Disadvantages
Demographic information Student background survey/ census	<ul style="list-style-type: none"> • Stable over time, allows for identification at the outset • Does not require frequent updates • Layering of different factors is intuitive and allows for building a continuum of risk 	<ul style="list-style-type: none"> • Highly context-dependent, what predicts dropout in one context may not be useful in another • Only a limited amount of student background information available at school level • However, not directly actionable
Academic (school-based information) Attendance, Performance, Behaviour	<ul style="list-style-type: none"> • Highly predictive of dropout • Regular measurement allows for timely intervention • Actionable through school-based programme interventions 	<ul style="list-style-type: none"> • Requires establishing systems for regular capture of attendance and performance • Does not provide information on the causes of dropout

Identifying and Tracking Most-At-Risk Children: Experiences and Lessons Learned

Field-based anecdotal evidence was solicited from seven diverse EAC partner organizations through surveys on approaches to identifying and tracking at-risk children: the International Rescue Committee (IRC), CARE International, World Vision Uganda, UNICEF Kenya, BRAC, UNRWA, and MIET Africa.

Across the board, the experiences of partner organizations map onto the frameworks reviewed in literature.⁴ Overall, the following patterns emerge:

- **Academic precursors**, especially school performance factors, tend to be more widely employed in measuring dropout risk than background characteristics. For some programmes, however, this may be because programmes are already working exclusively with children from vulnerable backgrounds.
- Among academic measures, school **performance factors** (such as results on reading assessments) and then **engagement factors** (especially attendance) are measured more often than factors related to school behaviour.

- Background characteristics are rarely the only measure used to assess dropout risk. They tend to be measured alongside academic factors.

This last observation raises an important point: the two approaches to measurement are not mutually exclusive and can be employed jointly in assessment of dropout risk. While many of the students struggling academically are likely to come from more disadvantaged backgrounds, the indicators offer a slightly different perspective on dropout risk—one more proximal, the other more closely tied to root causes—and could be used together to identify those most at risk of dropout.

Table 4. Organizational approaches to measuring dropout risk

Organizations	Academic precursors to dropout			Background/ demographic characteristics
	School engagement	School behaviour	School performance	
BRAC			✓	✓
CARE	✓	✓	✓	✓
IRC: Vas y Fille and 3EA			✓	
MIET	✓		✓	✓
UNICEF			✓	✓
World Vision: Uganda	✓	✓	✓	
UNRWA	✓	✓	✓	

⁴ It is important to acknowledge that organizations do tend to adapt their approaches in different contexts, so that programme-specific approaches may differ from what is reported in Table 4.

Factors for Identifying At-risk Children

EAC partner organizations surveyed typically identify at-risk children using data from the individual level and the family level, including factors such as orphan hood, disability, attendance rates, age, and exposure to abuse or violence. These types of factors are considered and assumed to be strongly linked to absenteeism and dropout by partners, drawing on their experience operating in these contexts. To focus in on particular factors for specific populations and programmes, some partners conduct a preliminary situational analysis.

However, school, community, and policy level factors are also relevant when considering communities where partners operate. The IRC and UNRWA exclusively operate in regions with conflict or refugee populations, for example. In this way, identification of at-risk children generally targets children that are “most at risk” as it takes place within already vulnerable communities. BRAC’s “Boat School” programme, which provides school transportation to children who would

otherwise be absent or not enrol in school, exemplifies this approach. The programme serves all affected children who lack transportation in this community, but BRAC also seeks to ensure that girls and children with disabilities are participating in the programme, in addition to those who are generally vulnerable to school absenteeism.

Tools and Processes for Identifying Children

Many programmes have adopted a tool or test to screen children for inclusion in their programming. These may be implemented directly or by a partner organization, such as the local school system. Screening criteria often include attendance rates or academic performance as an initial screening. Some programmes have developed tools to flag these children in EMIS or related systems when they repeat a grade or reach a critical level of absenteeism. Children who are initially identified with these criteria may have a more detailed follow-up on the child's individual needs and risks collected via home visits or other community outreach. To find those most at risk among an already vulnerable population, a programme may use a rating system to assign a risk score to each child based on individual and family level factors and rank children under consideration for programme services.

Notably, even among partners who have formal screening tools to identify at-risk children, community engagement and outreach to identify children remains a preferred identification process. For example, the IRC has used the ASER reading assessment to identify low literacy students; however, because so many children score poorly, the IRC uses guidance from case managers on child protection teams to identify children more vulnerable than the community norm. Besides community case worker teams, partners may also use child protection committees, school management committees, parent committees, and other types of meetings with community stakeholders to identify at-risk children. This is particularly important when identifying at-risk children who are out of school or never enrolled, as they may not be captured by a screening tool that draws on attendance data or that is conducted at schools.

Data Collection and Challenges

Generally, the data collection processes and indicators for surveyed organizations are built to collect data for the entire programme or target population, rather than those children "most at-risk." An exception is the initial intake of a child into a programme, when more information on the household and child's individual needs may be collected. Otherwise, all partners report that they typically collect student demographic data, and sometimes household data, at least during a baseline but often at least several times annually. In contrast, attendance data is often collected at the school level by teachers, rather than by the programme itself. BRAC, for example, relies on information reported by parents and schools to track attendance, learning outcomes, and impacts on vulnerable children. For this reason, some partners aim to support teachers to improve their identification and tracking of at-risk students in the classroom.

Given the focus on a range of individual factors that could lead to dropout, partners have differing definitions of success in terms of learning outcomes. Increased attendance and progression to the next grade are considered successful outcomes. Academic progression may be measured by in-school assessments alone, but some partners create their own baseline and endline assessments, and some rely on Early Grade Reading Assessment (EGRA) explicitly. While most partners focus on increasing attendance or academic achievement as success measures, a minority also evaluate acquisition of social, emotional, and life skills.

To ensure reliability of data, some partners crosscheck information from schools with data they collect directly in household surveys or school observations, or from other local stakeholders. Functionally, most information collected comes through paper surveys or registers and is in hard copy, although multiple partners expressed an interest in migrating entirely or partly to mobile data collection.

Developing an Overarching Approach

Overall, it is apparent that there is not a standardized approach to identifying at-risk children, although there are commonalities in the types of factors considered and approaches used to collect them. Additionally, it is important to note that the tools and processes used to identify at-risk children can vary not only between partners but also between programmes operated by each individual EAC partner organization surveyed, even within the same country. Because partners, as noted above, actively seek to engage with community stakeholders to identify and track at-risk children, the definitions of risk and approaches to identifying students also tend to be specific to the local context. Similarly, the degree of past collaboration or ongoing engagement with the school system and teachers impacts what types of data a partner organization has access to for identification and tracking students.

Proposed Definition of Most-at-Risk and Operational Guidance

As the literature review, EAC partner feedback, and key informant interviews indicated, risk factors for dropout come from background disadvantages combined with difficulties faced in school, and prior to dropout children begin to display signs of withdrawal and disengagement. The information from partner survey responses on their current efforts, processes and tools indicates that there are ongoing monitoring efforts in place to capture both sets of risk factors and prevent dropout through multiple measures.

Who are the most-at-risk?

It is instructive to note that nearly all EAC partner organizations target populations of children already facing social disadvantage. Therefore, identifying those most at risk within that group requires considering a combination of risk factors along with behaviours that indicate first signs of

withdrawal. These factors share commonalities across multiple contexts, as the research cited above showed, but the intensity of the effect that they exert on the likelihood of dropout differs depending on the context. This is true for both academic precursors and demographic factors. For example, an attendance rate of less than 80% may be a strong predictor of dropout in many environments, but, as one key informant noted, it may be the norm in remote rural or pastoral communities. On the other hand, gender may play different roles in different societies, and its influence on adolescent school participation varies dramatically across countries. Therefore, it is important to allow for local contextualization of thresholds of risk factors to separate and identify children who are most at risk. Context may also determine how often an assessment of risk factors needs to take place: while there can be a minimum requirement of an initial screening, the frequency of follow-up tracking may be driven by the demands of the local enabling environment.

We propose the following **general operational definition**:

- Children **at high risk** of dropout: children facing adversity due to a range of factors including economic/financial barriers, chronic illness, displacement or migration, disability, linguistic minority status, or gender-related cultural barriers.
- For non-binary factors, the magnitude of risk increases with an overlay of demographic factors (e.g., being a girl and being poor), or with the level of disparity in that factor between the child in question and the average child attending school on a regular basis (e.g., being dramatically below average SES level, or severely chronically ill).
- Children **most at risk**: children facing adversity that are displaying signals of heightened vulnerability, manifested through their reduced attendance and lack of engagement in learning.
- The categories above capture the general essence of the category of most-at-risk. The two sets of predictors intersect, and while the second is not always determined by the demographic factors, often, children at a disadvantage as a starting condition are the ones that shift into heightened vulnerability.

Reducing risk factors to improve education participation

The aspiration to keep children in school in the face of barriers to their participation necessitates a reduction in the risk factors contributing to their vulnerability. Identifying those most at risk requires application of tools and processes that bring attention to these students.

Situational analysis. SDPP recommends starting with a situational analysis that captures the key risk factors for dropout, as well as push and pull mechanisms that are relevant for every context. This step not only allows for a gauge of the magnitude of the risks but also possible solutions and interventions. While SDPP provides an extensive set of protocols at every level to establish the causes, factors, and mechanisms for dropout, a rapid assessment that focuses on narrowing down

the 2-3 key background demographic factors that are most predictive of school exclusion (including general out-of-school and dropout conditions) in the particular context of the programme is useful. A situational analysis will serve to highlight those students experiencing intersections of demographic risk factors. This process will inform the screening protocol for identifying children at high risk of dropout.

Student screening. As the key demographic factors are determined, the next step is establishing screening protocols for incoming children for every grade. In keeping with UNICEF and UIS recommendations for monitoring children at risk of leaving school (2016), screening protocols administered to all students, in school census format, will allow for direct identification of students at high risk of dropout. To ensure full coverage of the school census, it should be administered over an extended period of time, to allow for students who may not be present every day to be included in the screening. The screening tool should consist, at a minimum, of a child-level survey that asks about the key demographic risk factors, as well as about attendance in the previous year. As a result of the screening, students who carry one or more key demographic risk factors can be flagged for additional support and tracking. It is important not to label these children as “at risk,” and to ensure they are not publicly singled out, but discretely provided additional support.

Attendance tracking. Irregular attendance was the most direct predictor of dropout across the literature and an important element of definitions of dropout risk in SDPP, CREATE, and recent UNICEF and UIS frameworks. Universal, daily attendance trackers are essential to identifying students in a state of heightened vulnerability, on the brink of dropout. Depending on the context and class sizes, daily attendance tracking through teacher’s roll calls may be used as well as student-administered tools such as poster boards where students mark their attendance daily with initials or fingerprints, or with stickers (where possible). At regular intervals, at a minimum of once a month, attendance rosters should be reviewed by the teacher or programme personnel.

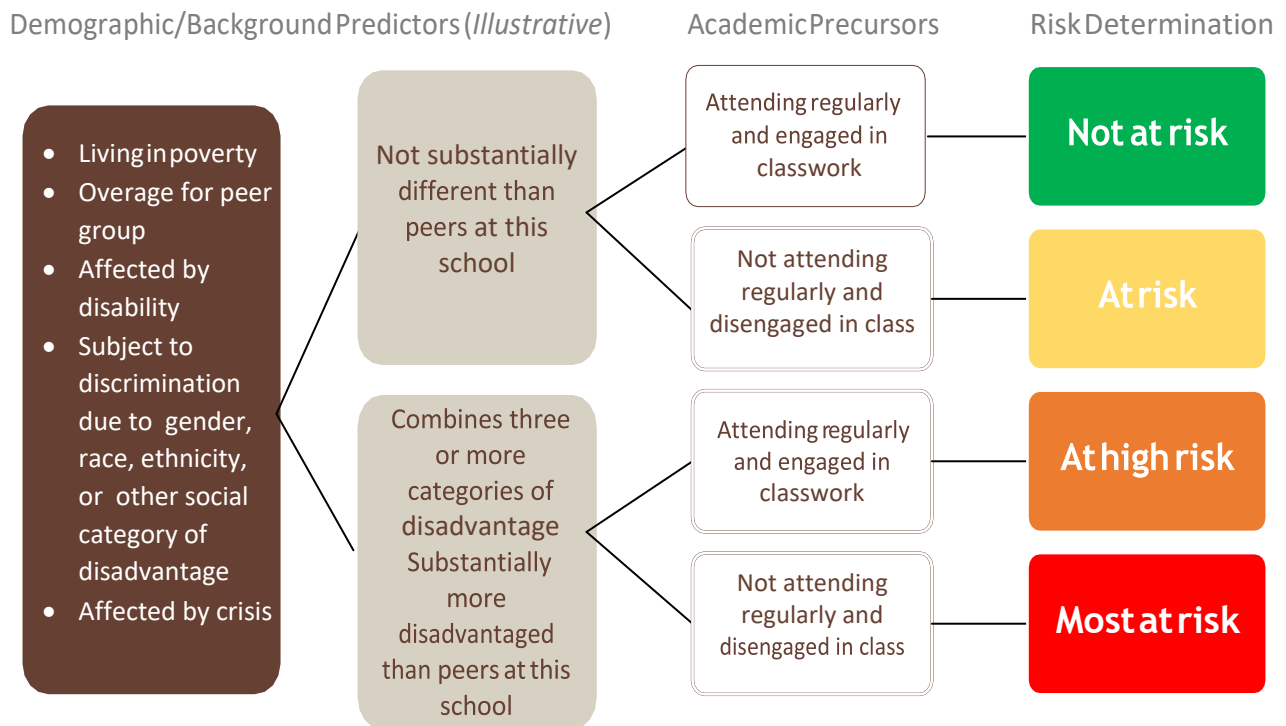
Behaviour and performance tracking. For students identified as “most at risk” based on a combination of demographic risk factors and/or attendance pattern, behaviour monitoring becomes an important third step of determining how high the risk of dropout is at a given moment in time. SDPP recommends teacher roster trackers to mark disruptive or disengaged behaviour on the part of students. The regularity of behaviour tracking for students at risk can be determined by the local implementation teams. The cycle chosen for attendance tracking may provide a useful benchmark.

Finally, performance tracking is another proxy of academic engagement and commitment to attending and completing school. In many low-income contexts, however, grades are only issued on a termly basis, which does not allow for continuous monitoring. Further, term exams often require fees, which, in turn, could influence dropout.

Lastly, Figure 5 offers a decision tree for identifying children most at risk of dropout. The decision tree, which draws on findings from the literature review, EAC partner feedback, and key informant interviews, starts with the demographic factors and moves into academic precursors that are critical

to assess the risk of imminent dropout. Specific thresholds and triggers should be determined for each factor. For example, the threshold for attendance rate may follow CREATE’s recommended 90% cut-off point; however, it will likely need to be adjusted downwards in specific contexts. Similar guidelines and thresholds can be set for the other signal factors, including the magnitude of relative disadvantage based on demographic characteristics.

Figure 5. Decision tree for determining dropout risk factor; demographic factors illustrative



Conclusion

The essential component in an effort to ensure the right of children to an education is active participation. It defeats the purpose if children face such burdensome barriers that education completion remains elusive. Reducing the risk for dropping out of an education programme prior to completion serves both to provide an essential right and contributes to breaking the cycle of poverty, gender discrimination, social inequity, and illiteracy. This Occasional Paper offers a review of relevant literature on children at risk of dropping out of school, an operational definition of most-at risk children, and some tools to identify those children in advance so that appropriate interventions may be designed to support successful participation in their learning programmes.

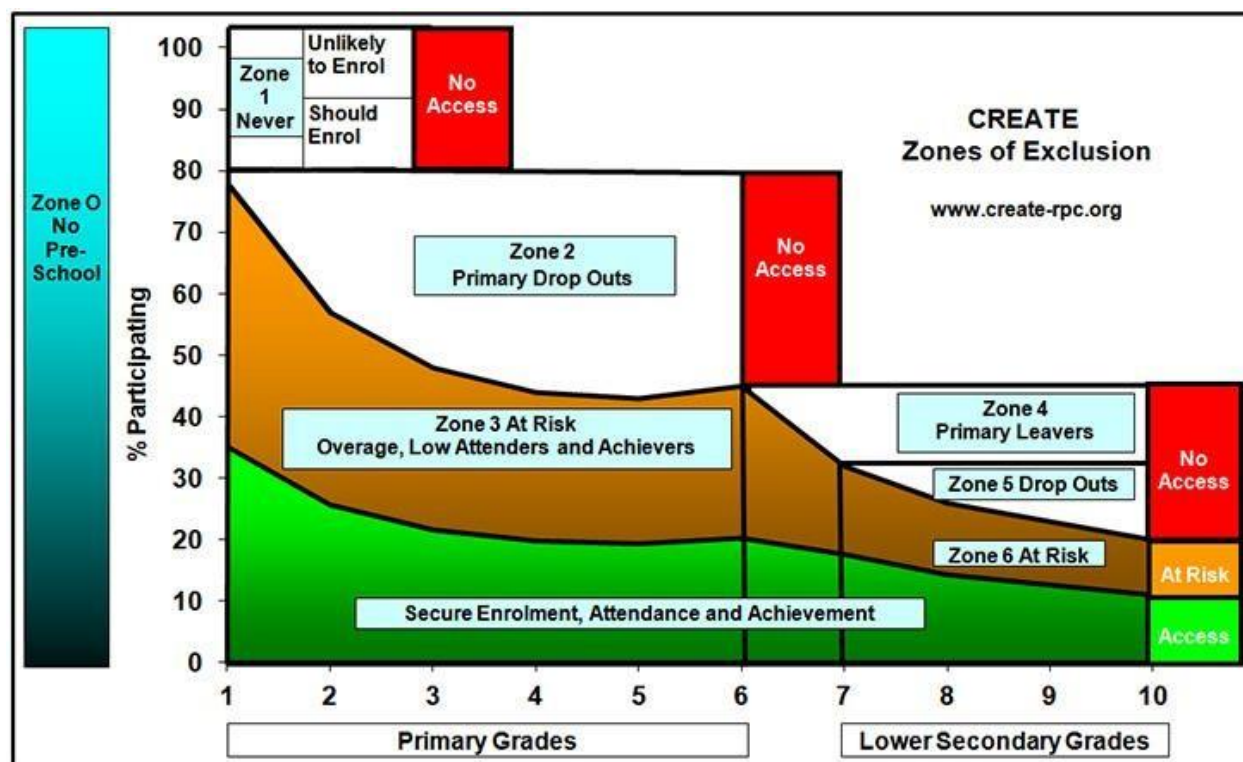
Since its inception, the Educate A Child programme has maintained laser focus on marginalized children at the primary level who are not in school. EAC with its strong partnership network has successfully identified, enrolled and educated millions of children in its short history. At the same time, continuously striving to ensure the education achievement of children requires attention to additional factors that may undermine a child's participation. This paper seeks to inform those engaged in providing educational opportunities of the factors that may contribute to a high degree of risk of dropping out of education programmes and what might be done to intervene in productive ways, first by identifying those who may be at risk and by creating mechanisms to address these factors.

The experience EAC has with over 50 developing countries seeking to educate marginalized children who are not in school suggests that this particular population may be more susceptible to factors outside of school contributing to the risk of leaving school or education programmes. Multi-faceted approaches that include attention to the community, parents, fiscal viability, health, transportation, and cultural norms may be as or more important than interventions once in school for children who are already marginalized. A systemic approach considering the local context may be essential in reducing risk and improving the likelihood that children successfully complete their education.

Annex A. Selected Frameworks Capturing Dropout Risk Factors

CREATE: Zones of Exclusion

The CREATE model of Zones of Exclusion categorizes children excluded from basic education into seven distinct zones, depending on their grade and level of participation in education. The model acknowledges that trends and causes of exclusion from education may differ from zone to zone and vary depending on context.



Source: Consortium for Research on Educational Access, Transitions & Equity (CREATE) (2011). *Making Rights Realities: Researching Educational Access, Transitions and Equity*

The CREATE model defines children in each zone as follows:

“Zone 1 contains those who never attend school. It includes those who could attend existing schools but do not, and those who are excluded by livelihoods, location, civil status, disability, social stigma or other vulnerabilities.

Zone 2 includes the majority of children who are excluded after initial entry, who drop out of school and fail to complete a full cycle. In an increasing number of countries, these are the largest numbers of out of school children.

Zone 3 includes those in school but at risk of drop out, most obviously as a result of low achievement and poor attendance. These children can be described as “silently excluded” since they are enrolled but may learn little, attend irregularly, and/ or are over age.

Zone 4 contains those who fail to transit to secondary education as a result of failing to be selected, being unable to afford costs, or located far from a secondary school, or otherwise excluded.

Zone 5 includes those dropping out of secondary grades.

Zone 6 contains those at risk of drop out from secondary school. Zone 0 captures those excluded from pre-school.”

The Global Initiative on Out of School Children (OOSCI): Dimensions of Exclusion

The 5 Dimensions of Exclusion is central to OOSCI’s approach to identifying, and analysing different groups of children who are excluded from education—either in or out of schools. Dimensions 1 to 3 represent children of pre-primary-, primary-, or lower-secondary-age who are out of school, while Dimension 4 and 5 refer to children who are at risk of dropping out from primary or lower secondary school.

Complementary to the 5 Dimensions of Exclusion, OOSCI has also categorized groups of children by their exposure to education and their visibility in data records (see below). The visibility model helps highlight data gaps in tracking out of school children and children at risk of dropping out. It points out that the children who are the most vulnerable and disadvantaged also tend to be “invisible,” as they cannot be identified through any government, administrative, or school records.

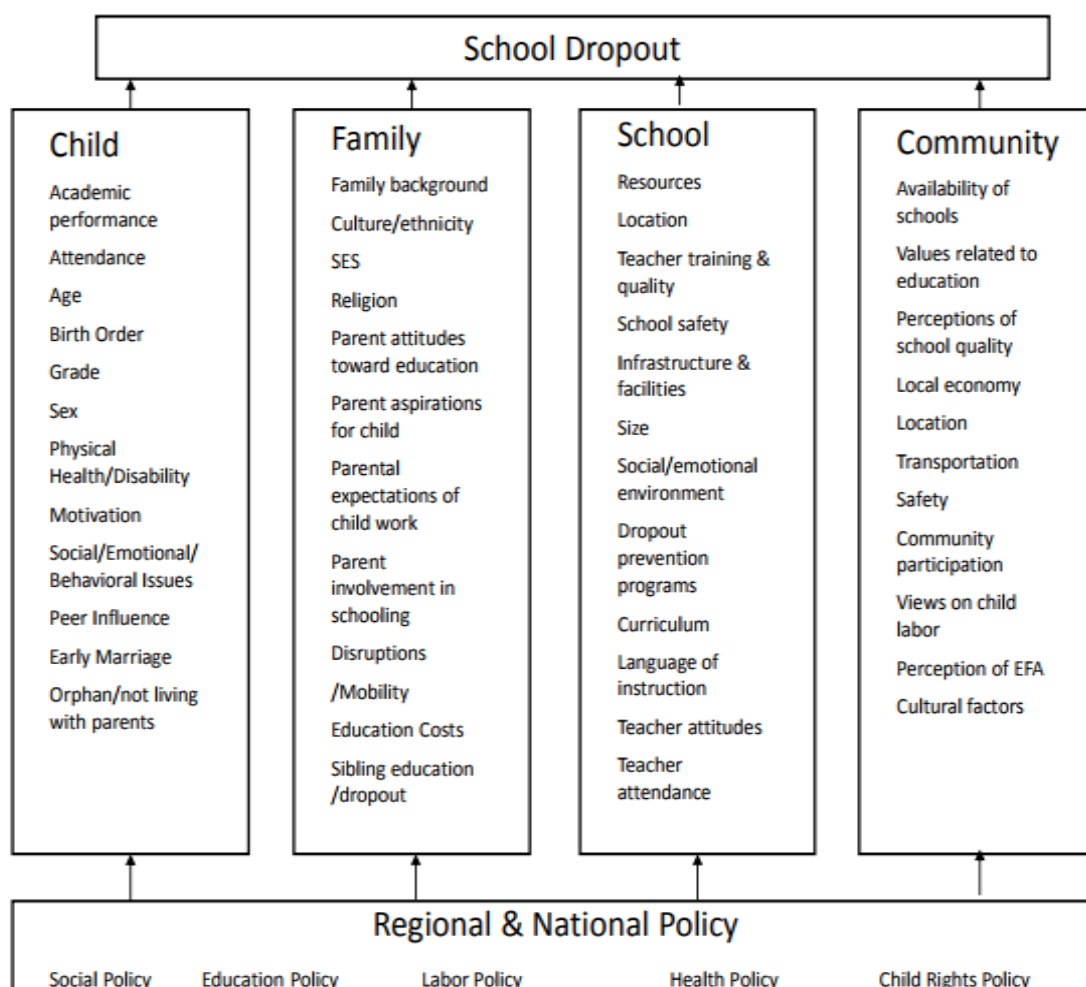
DIMENSION	GROUPS OF CHILDREN BY EXPOSURE TO EDUCATION:	GROUP OF VISIBILITY THESE CHILDREN MAY BELONG TO:
Dimension 1: Pre-primary-age out-of-school children	Have not entered school	Semi-invisible and Invisible out-of-school children
Dimension 2: Primary-age out-of-school children	Dropped out	Visible out-of-school children
Dimension 3: Lower secondary-age out-of-school children	Unregistered dropouts	Semi-invisible out-of-school children
	Have not entered school	Semi-invisible and Invisible out-of-school children
Dimension 4: At risk of dropping out from primary school	In school	May be visible at the school level, but invisible at regional and national level
Dimension 5: At risk of dropping out from lower secondary school		

Source: UNESCO Institute for Statistics (UIS) and UNICEF (2015). *Global Out-of-School Children Initiative Operational Manual*

USAID School Dropout Prevention Program: Conceptual Framework for Dropout

The USAID School Dropout Prevention Program (SDPP) acknowledges that dropout is a process influenced by factors at multiple levels: child, family, school, community, and regional and national policy. For the situational analysis in each of the four intervention countries, SDPP refers to the following conceptual framework and illustrative factors to identify context-specific indicators to understand and track dropout.

Figure 1: Conceptual Framework for School Dropout (with illustrative factors)



Source: USAID SDPP (2011). *School Dropout Prevention Pilot (SDPP) Program: Inventory of Instruments for Situational Analysis*

UNICEF AND UIS Framework for Monitoring Children and Adolescents who are Out of School or at Risk of Dropping Out

In this framework, UNICEF and UIS provide recommendations for systems-level tracking as well as individual-level tracking of youth at risk of dropping out of school. At the student-level, they propose a way of connecting in-school factors related to achievement, behaviour, and attendance to individual and family background characteristics to assess dropout risk. The following table reviews the factors the framework considers particularly important to student risk, with the first three (their ABCs) broadly relevant and the additional factors of potential relevance in certain contexts.

Framework for assessing individual dropout risk
A: Academic achievement
B: Behaviour
C: Chronic absenteeism
D: Disability
E: Entry and progression in the education system (e.g., overage for grade, no pre-primary experience)
E: Early adult responsibilities (e.g., child labour, child marriage)
F: Family circumstances and peers (e.g., challenges getting to school, poverty, has been bullied)

Adapted from UNICEF and UIS (2016). Monitoring Education Participation: Framework for Monitoring Children and Adolescents who are Out of School or at Risk of Dropping Out, pp. 59-60

Annex B. EAC Partner Survey Analysis

Organization	Who is at risk?	Key identification tools or processes	Unique identification tools or processes	Typical monitoring/data collection
IRC	All children in communities with IRC operations are considered potentially “at risk.” The aim is to find those worse off than the community average.	<ul style="list-style-type: none"> ASER scores Child protection teams and case workers Community outreach 	<ul style="list-style-type: none"> IRC has an “Outcomes and Evidence” framework with recommended indicators for attendance, learning outcomes, health, attendance and related data that is used as a guideline for IRC programme monitoring. 	<ul style="list-style-type: none"> Household surveys and student demographic data as part of baseline Monthly attendance data collection EGRA/EGMA as well as other social and emotional learning tools
UNICEF Kenya	Potentially any child for their programmes as they focus on refugee/crisis response. Uses the INEE definition as well as the UNICEF OOSCI Operation Manual and CREATE Five Dimension of Exclusion definition to guide who to serve.	<ul style="list-style-type: none"> Community outreach Situational analysis Multiple Indicator Cluster surveys EMIS data analysis 	<ul style="list-style-type: none"> Developed a tool for EMIS systems that can flag students at risk of drop out based on the past drop outs in that context. 	<ul style="list-style-type: none"> Student demographic data collected in baselines Attendance data
World Vision - Uganda	Any school age child out of school, enrolled student with attendance below 90%, or with poor performance.	<ul style="list-style-type: none"> Community outreach Child protection committees Academic performance and attendance 	<ul style="list-style-type: none"> Developed student registers and monitoring sheets that are used to screen children in school for risk factors as well as identify and track children out of school. Also collect detailed data on the operations and performance of all schools supported. 	<ul style="list-style-type: none"> Triannual household surveys Daily attendance records EGRA, term assessments, quarterly learning assessments, and life skills assessments
CARE	Varies by context but typically children with absenteeism, poor performance, historically marginalized by sub-group, experiencing violence, or other vulnerability such as caregiving responsibilities.	<ul style="list-style-type: none"> Situational analysis In school screening of attendance/performance Teacher recommendations Community outreach EMIS data analysis 	<ul style="list-style-type: none"> Processes are developed to be tailored for each context. In Somalia, developed a screening tool for teachers to rate and rank at-risk girls for support based on in school factors. 	<ul style="list-style-type: none"> Demographic data during baseline/midline/endline Triannual attendance collection Long term drop out trends Learning outcomes, measured by CARE and by schools
MIET Africa – South Africa	Any child below 90% attendance, out of school, never enrolled, or with other emotional, economic, social, etc., vulnerability, such as HIV/AIDS status or orphanhood.	<ul style="list-style-type: none"> Partnership with sub-national education departments to identify low income schools In-school screening of attendance/performance Community outreach 	<ul style="list-style-type: none"> Uses detailed intake and vulnerability assessment tools (designed for home visits) that collect needs and risks for individual children and delve deeply into family and child characteristics that could hinder school completion. 	<ul style="list-style-type: none"> Detailed child and family demographic data from home visits Attendance records Health and wellbeing data for each child Academic performance, as measured in each school
BRAC - Bangladesh	Children who never enrolled, dropped out, have poor performance, and who cannot easily access school. Particular focus on girls and children with disabilities.	<ul style="list-style-type: none"> Community outreach 		<ul style="list-style-type: none"> Community forums Demographic data Attendance data Learning outcomes from in school assessments
UNRWA	All children in UNRWA operations areas are considered potentially “at risk.” Children with low academic engagement or at risk of repeating a grade are considered most vulnerable.	<ul style="list-style-type: none"> Teacher recommendations School based case management teams Warning tools linked to EMIS 	<ul style="list-style-type: none"> Uses a teacher toolkit to help teachers assess their support for and identification of at-risk students based on student performance and individual characteristics. All schools also have student support teams that manage individual student cases. 	<ul style="list-style-type: none"> Biannual student demographic data collection Daily attendance data Triennial external learning assessments as well as in school assessments

References

- Alexander, K. L., Entwisle, D. R., and Kabbani, N. S. (2001). The dropout process in life course perspective: Early risk factors at home and school. *Teachers College Record*, 103(5), 760-822.
- Barker, G., Verma, R., Crownover, J., Segundo, M., Fonseca, V., Contreras, J. M., Heilman, B. and Pawlak, P. (2012). Boys and education in the global South: emerging vulnerabilities and new opportunities for promoting changes in gender norms. *Thymos: Journal of Boyhood Studies*, Vol. 6, No. 2, pp. 137-50.
- Bridgeland, J. M., Dilulio, J. J., and Morison, K. B. (2006). *The silent epidemic: Perspectives of high school dropouts*. Washington, DC: Civic Enterprises, LLC, in association with Peter D. Hart Research Associates for the Bill & Melinda Gates Foundation.
- Consortium for Research on Educational Access, Transitions & Equity (CREATE). (2011). *Making Rights Realities: Researching Educational Access, Transitions and Equity*. Brighton, UK: University of Sussex.
- Dockery, D. J. (2012) School Dropout Indicators, Trends, and Interventions for School Counselors. Richmond, VA: Virginia Commonwealth University.
- Doll, J. J., Eslami, Z., and Walters, L. (2013). Understanding Why Students Drop Out of High School, According to Their Own Reports. *SAGE Open*, 3.
- Duryea, S., Lam, D. and Levison, D. (2007). Effects of economic shocks on children's employment and schooling in Brazil. *Journal of Development Economics*, 84(1), pp. 188-214.
- Girls Education Challenge (GEC) (2016). *Narrow Windows, Revolving Doors: GEC Thematic Research Report*. Reading, UK: Coffrey International.
- Gleason, P., Dynarski M. (2002). Do we know whom to serve? Issues in using risk factors to identify dropouts. *Journal of Education for Students Placed at Risk*, 7(1), 25-41.
- Govinda, R. (2008). *Education for all in India: assessing progress towards Dakar goals*. Background paper for EFA Global Monitoring Report 2008.
- Hammond, C., Linton, D., Smink, J., and Drew, S. (2007). *Dropout Risk Factors and Exemplary Programs: A Technical Report*. Clemson, SC: National Dropout Prevention Center, Communities In Schools, Inc.
- Hattori, Hiroyuki (2014). *Demographic and socioeconomic determinants of school attendance: An analysis of household survey data*. Background paper prepared for Fixing the Broken Promise of Education for All: Findings from the Global Initiative on Out-of-School Children. Montreal: UNESCO Institute for Statistics.
- Huisman, J. and Smits, J. (2009). Keeping Children in School: Household and District-level Determinants of School Dropout in 363 districts of 30 Developing Countries. Nijmegen, The Netherlands, Nijmegen Center for Economics, Institute for Management Research, Radboud University (NiCE Working Paper, 09-105).
- Hunt, F. (2008). *Dropping out from School: A Cross Country Review of the Literature*. Brighton, UK, Consortium for Research on Educational Access, Transitions and Equity, University of Sussex. (CREATE Pathways to Access Research Monograph, 16.)

- Jha, J. and Kelleher, F. (2006). *Boys' Underachievement in Education: An Exploration in Selected Commonwealth Countries*. London/ Vancouver, BC: Commonwealth Secretariat/ Commonwealth of Learning.
- Jimerson, S., Egeland, B., Sroufe, L. A., and Carlson, B. (2000). A prospective longitudinal study of high school dropouts examining multiple predictors across development. *Journal of School Psychology*, 38(6), 525-549.
- Jordan, W. J., Lara, J., and McPartland, J. M. (1994). *Exploring the complexity of early dropout causal structures*. Baltimore, MD: Center for Research on Effective Schooling for Disadvantaged Students, Johns Hopkins University.
- Kaufman, P., Bradbury, D., and Owings, J. (1992). *Characteristics of at-risk students in the NELS:88*. Washington, DC: National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education.
- Kuper, H., Monteath-van Dok, A., Wing, K., Danquah, L., Evans, J., Zuurmond, M. and Gallinetti, J. (2014). The impact of disability on the lives of children: cross-sectional data including 8,900 children with disabilities and 898,834 children without disabilities across 30 countries. *PLoS ONE*, 9(9), p.e107300.
- Lehr, C. A., Johnson, D. R., Bremer, C. D., Cosio, S., and Thompson, M. (2004). *Essential tools: Increasing rates of school completion: Moving from policy and research to practice*. Minneapolis, MN: National Center on Secondary Education and Transition, College of Education and Human Development, University of Minnesota.
- Myers, R. G. (1992). *The Twelve Who Survive*. London: Routledge.
- Myers, R. G. (2004). In search of quality in programmes of early childhood care and education (ECCE). Background paper for EFA Global Monitoring Report 2005.
- Sabates, R., Akyeampong, K., Westbrook, J., Hunt, F. (2010). *School Drop Out: Patterns, Causes, Changes and Policies*. Paper commissioned for the EFA Global Monitoring Report 2011, The hidden crisis: Armed conflict and education.
- UNESCO (2015). EFA Global Monitoring Report 2015. *Education for All 2000-2015: Achievements and Challenges*. Paris: UNESCO.
- UNESCO Institute for Statistics (UIS) and UNICEF (2015a). *Fixing the Broken Promise of Education for All: Findings from the Global Initiative on Out-of-School Children*. Montreal: UIS.
- UNESCO Institute for Statistics (UIS) and UNICEF (2015b). *Global Out-of-School Children Initiative Operational Manual*. New York: UNICEF.
- UNICEF and UNESCO Institute for Statistics (UIS) (2016). *Monitoring Education Participation: Framework for Monitoring Children and Adolescents who are Out of School or at Risk of Dropping Out*. UNICEF Series on Education Participation and Dropout Prevention, Vol I. Geneva: UNICEF Regional Office for Central and Eastern Europe and the Commonwealth of Independent States.
- USAID School Dropout Prevention Pilot Program (SDPP) (2011). *Review of the Literature*. Washington, DC: Creative Associates International.

USAID School Dropout Prevention Pilot Program (SDPP) (2015). *Preventing School Dropout: Early Warning System Programming Guide*. Washington, DC: Creative Associates International.

Watt D., Roessingh H. (1994). Some you win, most you lose: Tracking ESL dropout in high school (1988-1993). *English Quarterly*, 26, 5-7.