1. INTRODUCTION

The purpose of this desk study is to provide a discussion document on education and fragility for the INEE Working Group on Education and Fragility. The central question that the study seeks to address is: How can provision of quality education mitigate fragility and contribute to peace building, peace dividends, state building, the resilience of institutions and state stabilization?

To date, evaluations and research on education and different aspects of fragility have focused on how the former suffers under the latter. From a rights-based perspective, the conclusions derived from this focus provide sufficient reason for educational interventions and investments in situations of fragility.

Nevertheless, advocacy for investments in education in fragile states can only benefit from the argument that education can, in fact, mitigate fragility. The purpose of this study is therefore to survey the evidence and data available on the effects of education on fragility.

2. CONCEPTUAL FRAMEWORK

2.1 Definitions of key concepts

Education, for the purposes of this study, refers to programs sponsored by governments, United Nations (UN) agencies, non-governmental organizations (NGOs), and/or community-based organizations (CBOs). This includes formal education such as primary and secondary schooling, as well as educational opportunities such as technical and vocational education and training (TVET), adult literacy and numeracy training, life skills education, and the like, whether delivered in formal or non-formal settings.

For the purposes of this study, state fragility refers to a state’s lack of capacity and/or willingness to effectively govern, deliver services to, and protect the human rights of its citizenry. This does not necessarily imply that state fragility is exclusively caused by a given regime, since the condition may arise from a complex interaction of social, political, and economic factors.

2.2 Core assumptions and current understandings around education and fragility

The following list comprises the core assumptions and current understandings in the research literature on the linkages between education and fragility. Many of these are
drawn from literatures around education and conflict, emergencies, instability, crises, disaster, and reconstruction as these are both related to and more developed than the literature specifically on education and fragility.

2.21) Education is a critical component of humanitarian aid and should be considered the fourth pillar of humanitarian response.¹

2.22) Education in situations of instability possesses ‘two faces’.² Education can have the effect of promoting peace, inclusiveness and stability through its structures and content. Conversely, it may entrench existing inequalities and prejudices, thus fostering conflict.

2.23) Education may serve as a ‘barometer’³ of a government’s commitment to and relationship with its citizens in that it is an investment that affects a vast proportion of the population – parents, children and communities.

2.24) Education in situations of instability is a high priority for communities affected by fragility characterized as conflict.⁴

2.25) Education can act as a peace dividend.⁵ The rapid resumption of educational provision can provide an incentive for parties to maintain peace as they can see its benefits.

2.26) The post-conflict context can offer an opportunity for educational reconstruction.⁶

2.27) Education provides stability for children affected by natural or manmade disaster.⁷

2.28) Education can contribute to reconciliation.⁸

2.29) Education can contribute to social cohesion.⁹

2.3 Conceptual thinking: education and fragility

There is no single “effect of education on fragility”. In order to be able to interpret seemingly contradictory evidence, it is important to consider a number of dimensions, including: aspects of fragility, severity of fragility, unit of analysis, time-scale, and aspects of education.

² Bush and Saltarelli, 2000; “The two faces today”: Thematic issue of Research in Comparative and International Education (3:1, forthcoming)
³ Rose and Greeley, 2006.
⁴ Sinclair, 2002; Boyden 2003; Bethke and Braunschweig, 2004
⁵ As used by Rose and Greeley, 2006.
⁶ Buckland, 2005.
⁸ Smith, 2005
⁹ Tawil and Harley, 2004
2.31) Aspects of fragility

Fragility has been associated with a large number of factors. A partial list includes: low state capacity resulting from a lack of financial, physical, administrative or human resources; poor governance and/or corruption; failure to deliver basic services; and low levels of social cohesion. Fragility is also associated with violent conflict, inequality and exclusion, repression, poverty, and/or economic crisis.\textsuperscript{10}

It is not possible to identify these aspects unambiguously as either causes or consequences of fragility. Most can act as either or both at different times and in different places, and all are interconnected. For example, low trust in government might be the result of wide-spread corruption, but in turn might reduce effective state control through non-compliance and non-cooperation with the authorities.

For present purposes the distinction between cause and consequence of fragility is – in any case – of little importance: education could mitigate fragility both by affecting its causes and/or by affecting its consequences. In the former case, education would reduce the occurrence or likelihood of fragility; in the latter, it would soften its impact. Either way, the overall adverse impact of fragility would be reduced.

We therefore consider the effect of education on any of the above aspects of fragility as relevant to the question of education’s effects on fragility, not merely on ‘synthetic’ measures of state fragility, such as the one based on a threshold on the World Bank’s CPIA index (Country Policy and Institutional Assessment) used in some of the research reviewed\textsuperscript{11}.

2.32) Severity of fragility

The role of education in fragile contexts is also likely to vary according to the severity of the crisis and/or tensions contributing to fragility. The ‘fragility continuum’, when applied to a state, may be seen as a spectrum of relative states or levels of fragility: weak, fragile, failing, failed, and collapsed.\textsuperscript{12}

![State fragility continuum](image)

The important point is not to define these categories precisely, but to illustrate that a continuum model offers a useful conceptual framework.

Different types of interventions may have different outcomes depending on the degree of state fragility: for instance, an educational intervention that has proven effective for conflict prevention may not remain effective once violent conflict has occurred.

\textsuperscript{10} Moreno Torres and Anderson, 2004.
\textsuperscript{11} e.g. Chauvet and Collier, 2004.
\textsuperscript{12} François and Sud, 2006.
Unfortunately, these conceptually helpful distinctions cannot be consistently maintained in the following analysis because many authors fail to be precise about the degree of state fragility that they analyze. As a result, in much of the literature and therefore by necessity in this report as well, ‘fragility’ may refer to the entire continuum or to a very particular point within it.

2.33) Unit of analysis

Operational definitions of fragility explicitly describe state fragility.\textsuperscript{13} No operational definition exists for what it means for a local community or individual to suffer from fragility. However, effects of education at the levels of the individual and the community are also relevant. This study has therefore sought evidence for the effect of education on fragility at the micro as well as the macro level. It is important to note that the effects at the micro level cannot necessarily be expected to be consistent at the macro level and vice versa.

For example, it is possible for educational interventions to reduce the likelihood of any given individual to engage in violence, without reducing the overall risk of violence in the population, or vice versa. Likewise, school expansion may reduce the number of people without economic stake in stability; however, this stabilizing effect may be counteracted by deepening the economic marginalization of those who do not benefit from the expansion. A well-known example of inconsistent micro/macro effects is the effect of education on income: the evidence that education generally improves individual income is unequivocal while evidence that national levels of education directly influence economic growth is much less solid and more disputed.\textsuperscript{14} The unit of analysis is also important because research on the macro-linkages is necessarily econometric, long-term and comparative, whereas research on the micro-linkages is often ethnographic.

2.34) Timescale

Short-term and long-term effects of education on fragility frequently differ. Evaluations of short-term interventions, which are the norm in humanitarian aid, fail to capture this distinction. For instance, in the long term, democratization is expected to reduce fragility and conflict, because established full democracies are less prone to violence. However, partial democracies have been found to be less stable than in-control autocratic regimes.\textsuperscript{15} Democratization may therefore initially destabilize a state. If education does contribute to democratization, its effect at different time-scales will be contradictory: it may have a negative indirect effect at first, but a stronger positive effect in the long run.

2.35) Aspects of education

\textsuperscript{13} See e.g. USAID, 2005 and DFID 2005.
\textsuperscript{14} See e.g. Wolf, 2002 and 2004.
\textsuperscript{15} Hegre et al., 2001.
Finally, in assessing the evidence, it is important to bear in mind that the effect of education is not simply a question of education’s presence or absence, but depends on its characteristics. One common set of dimensions of education is: Access, Quality, Relevance, Equity, Management. Kirk groups them somewhat differently:

there are at least three dimensions of fragility-sensitive education provision; the equitable and effective delivery of education, the content of the education (i.e., the curriculum and materials used to convey that curricula) and the processes through which education takes place (that is the teaching methods employed, the management and administration systems and relationships).

As will be seen below, the evidence base for the impact on fragility of education is vastly better for some aspects than for others.

3. FINDINGS: LINKAGES BETWEEN EDUCATION AND FRAGILITY

This section presents findings from a broad exploration of research related to education and fragility. The findings are those for which sufficient evidence exists, based on methodologically sound qualitative and quantitative studies. They are presented as ‘stylized facts’, that is, as simplified presentations of broad generalizations that do not reflect all the details of the research cited. After each finding is presented, it is discussed in terms of the conceptual framework presented above and in terms of its meaning for the assumptions presented in section 2.2.

3.1 State educational provision is a necessary condition for overcoming fragility.

State fragility almost always refers to a state in which the government is unwilling or unable to provide basic services. This definition is functional: it describes what a fragile government cannot or will not do, rather than identifying the root causes of this fragility.

Education has an impact on state fragility simply because the inability or unwillingness to effectively provide basic education is a sufficient criterion for a state to be classified as fragile according to most definitions. Unless educational provision by the state is at a reasonable level, a state is thus, by definition, fragile, although it may be considered fragile for other reasons even when a quality educational system is in place.

Evidence:

- Various definitions – including those of USAID and DfID – describe a fragile state as one in which the government is unwilling or unable to provide basic services. 
- According to the draft Progressive Framework for FTI support to education in fragile states, the Framework is to be used in cases when a ‘government is unable to demonstrate a commitment to the Millennium Development Goal of universal basic education’ and/or when a ‘government is unable to effectively utilize … resources to meet basic education needs’. 

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16 USAID, 2006.
Notes:
- This finding works across the dimensions of the conceptual framework.
- This finding reinforces a number of assumptions including 2.21, 2.23, 2.25, 2.27, and 2.29.

3.2 Education can enhance stability by contributing to social cohesion.

There are strong theoretical reasons for expecting education to lead to social cohesion:

First, schools teach people the interpersonal, political, social, and legal principles that underlie good citizenship, the obligations of political leaders, the behavior expected of citizens, and the consequences for not adhering to these behaviors. Second, the classroom brings together people of different origins and teaches them how to work together peacefully. Third, schools seek to provide equality of opportunity for students, giving them each a chance for success in life. Finally, school systems combine the interests and objectives of a wide range of groups while trying to establish a common underpinning for citizenship.\(^{20}\)

While empirical studies of the link between social cohesion and fragility are scarce, the first step in the chain - that education contributes to social cohesion - is supported by research evidence.

Evidence:
- A cross-national study of the determinants of social cohesion found that ‘in most (perhaps all) countries the best predictor of high social capital is simply years of formal education. Even holding constant other factors, including race, income, gender, ethnicity, occupation, and many others, more educated people have wider, deeper, stronger social networks and participate more in social, community, and political life.’\(^{21}\)

- Another cross-national study found that educational inequality is closely connected to lack of social cohesion (via income inequality), using a more societal definition of social cohesion based on ‘Trust in Government’ and similar measures.\(^{22}\)

Notes:
- Aspects of education will be important for the relevance of this finding as one can assume that a poor quality, irrelevant or inequitable education would not contribute to social cohesion in the way that a high quality, relevant and equitable one would. Severity of fragility will also be important to consider in relation to this finding.
- This finding supports assumption 2.29.

\(^{22}\) Green and Preston, 2001.
3.3 Secondary education is an effective contribution to overcoming state fragility.

Evaluations of specific educational programs are ill-suited to detecting long-term or aggregate effects at the national level. Few studies exist that attempt to link education directly to a synthetic index of stability at the national level directly (rather than to one of fragility’s determinant dimensions). Cross-national and longitudinal analysis of the effects of education on fragility are often difficult, due to problems with data quality and/or availability. Nevertheless, some evidence exists.

Evidence:
- One of the few statistical studies that examines the determinants of a synthetic measure of state fragility directly concludes that ‘Countries with a higher proportion of their people who have secondary education [...] are significantly more likely to achieve sustained reform. [...] the pay-off of expanded secondary education [by 1 percentage point] in a typical LICUS [= “Low Income Country Under Stress”, a synonym for “fragile state”], in terms of enhanced prospects of reform is worth approximately $2.4bn. This would have to be compared against the costs of such an expansion, although we should note that we have not taken into account any of the normal returns to education in terms of raising incomes. The reform effect is purely additional to conventional calculations.’

Notes:
- All dimensions of the conceptual framework should be considered carefully in relation to this finding.
- This finding provides support for assumptions 2.21 and 2.23.

3.4 Education can measurably reduce the risk of civil unrest and violent conflict.

A number of large-scale statistical analyses of the determinants of conflict, have shown that education is associated with a decrease in risk, both directly and indirectly, by influencing other drivers of conflict.

Evidence:
- A large-scale econometric analysis of civil war since 1960 concluded that a ‘country which has ten percentage points more of its youths in schools — say 55% instead of 45% – cuts its risk of conflict from 14% to around 10%.’
- ‘State-level empirical evidence for India shows that, in the medium-term (i.e. over a period of five years), public expenditure on social services and improvements in education enrolments are effective means to reduce civil unrest, as they affect directly the level of poverty across Indian states.’
- Other economic studies confirm that redistribution of services between opposing groups or the reduction of ethnic discrimination more generally reduces the risk of conflict. Since schooling has the potential to perform a redistributive function, this is an effect that schooling can help leverage.

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24 Collier, 2000, p. 7.
A more recent, alternative large-scale statistical analysis of the determinants of civil war found that increases from 1 standard deviation below to 1 above the mean for primary enrollment, educational expenditure, adult literacy, and secondary male enrollment decreased the probability of civil war onset between 43% (adult literacy) and 73% (primary enrollment ratio).

An analysis of household-level data for Uganda during 1992-2000 shows that individuals were less likely to engage in civil strife the more highly educated the household, especially at the lowest levels of education.

Another large-scale statistical analysis shows that male secondary enrollment is also negatively related to the duration of conflict.

Notes:
- This finding is qualified by considering aspects of fragility as the evidence presented here shows education reducing specific aspects of fragility only. Time frame should also be considered as an important qualifier for this finding.
- The finding provides evidence for assumptions 2.21, 2.26 and 2.27.

3.5 The perception of inadequate educational service often becomes a grievance that exacerbates state fragility.

The poor quality of or lack of access to education can be one of the most tangible grievances against a larger pattern of fragility, as a number of studies show. Poor educational provision is thus an indicator of fragility.

Evidence:
- A qualitative study in Nepal found that education was among the core grievances, and hence demands, of the Maoist rebels.
- In Sierra Leone, an ethnographic study found that ‘young combatants of all factions, almost without exception, represent themselves as victims of educational collapse.’ A quantitative study of ex-combatants in Sierra Leone confirms that lack of educational opportunity was among the reasons ex-combatants joined the Revolutionary United Front (RUF).
- In Peru, the large-scale qualitative research identified dissatisfaction with public education, corruption in the educational sector and lack of mobility associated with education (particularly outside of the capital city) as key causes for the growth of the ‘Sendero Luminoso’ armed faction, as these grievances were used to recruit both students and teachers.

27 Goldstone et al., 2000.
28 Thyne, 2006.
30 Collier et al., 2004.
31 Shields and Rappleye, forthcoming.
32 Richards, 1999.
34 Comision de la verdad y reconciliacion de Peru, 2003.
Notes:
- Here aspects of education are important to understanding this finding as a population could respond negatively to lack of access to education and/or to poor quality education and/or to educational exclusion, etc.
- This finding may provide reinforcement for assumptions 2.23, 2.24, and 2.25.

3.6 Schooling can be a prime site of corruption and a suitable place to establish transparency.

In low transparency contexts, the education system is a prime site for corruption through ‘phantom teachers’, misappropriated funds, fraudulent school construction contracts, and other dishonest schemes. This is because very large sums of money are involved. Education is often the single largest expenditure item, possibly after defense, and teachers are often the single largest group of state employees. Also, school can be a site where children may become accustomed to the practice of corruption; at the teacher-student level, corruption can take the form of favorable treatment or good grades/promotion in exchange for payment, services or sexual favors. If corrupt, the education system may be one of the most visible signs of larger state corruption because it is one of the most frequent contact points between large parts of the population and the state.

Evidence:
- According to recent research on public perceptions of corruption in South Asia, in a sample of 2278 Sri Lankan respondents, 61% of those who interact regularly with education institutions reported encountering corruption.\(^\text{35}\)
- In Tanzania and Ghana, leakage of education funds has at times exceeded 50%.\(^\text{36}\)

On the other hand, education is potentially a good place to start with anti-corruption measures, e.g. by publishing school budgets, because it is one of the most visible areas of public spending and the local implementers are well-known.

Evidence:
- In Uganda, a Community Accountability and Transparency Initiative (CATI) was implemented, involving reports on the monthly transfer of funds to districts being broadcast on public radio and published in newspapers. At the receiving end, schools were required to publicly display information on their inflow of funds, so the community could examine the flow of capital grants.\(^\text{37}\) ‘The share of funds reaching schools increased from 20% in 1995 to 80% in 2001’.\(^\text{38}\)

However, success depends on the quality of implementation and possibly other factors, as the Ugandan success could not be replicated in Tanzania and Ghana.\(^\text{39}\)

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\(^{36}\) Johnson, forthcoming.
\(^{39}\) Unfortunately, the reasons for the failed replication could not be identified in the source.
3.7 Political manipulation of educational provision and content may increase state fragility.

If educational provision becomes a tool of political point-scoring in fragile states, schools in particular can become a potent risk factor for increasing instability. The undesirability of officially sanctioned teaching of hatred of others is self-evident, and does not require experimental or quasi-experimental studies of its effect. There are, however, a number of careful qualitative studies that compellingly demonstrate the linkage between negative education and fragility.

Evidence:

- In Afghanistan, school textbooks were used to instill a logic and culture of violence, even after the toppling of the Taliban.\(^{40}\)
- In India and Pakistan, school textbooks create a sense of religious superiority with regard to minorities and the other country respectively, feeding into decades of tension.\(^{41}\)
- In Rwanda, both formal and informal education channels (textbooks, radio, etc.) were used to stir up ethnic hatred.\(^{42}\)

Notes:

- This finding is dependent on aspects of education including discriminatory and/or violent content and aims. The unit of analysis is also important to consider in respect to this finding as the effect of such messages affects both the individual micro level and the societal macro level.
- The finding offers evidence for assumption 2.22.

3.8 Education is highly desired by populations affected by fragility.

Even in times of acute crisis, qualitative studies definitively prove that education is a priority. Parents, children and community leaders alike have consistently placed education among their top priorities during and following conflict. These findings lend credence to the idea that education can serve as a ‘peace dividend’ (in the wider sense) following conflict, in that demonstrable improvements in educational access and quality can provide an incentive for potentially aggressive parties to buy into peace.

Evidence:

\(^{40}\) Spink, 2005.

\(^{41}\) Lall, 2007.

\(^{42}\) Obura, 2003.
In focus group interviews, youth in northern Uganda expressed that education was ‘their priority concern, and the solution to the many challenges they face’.43

Both quantitative44 and qualitative studies45 of post-conflict Sierra Leone found that education was among the top priorities of ex-combatants and non-combatants alike.

A global survey of education in emergencies found that ‘children, youth and their families value and want formal education.’46

Notes:
- Units of analysis should be considered with respect to this finding, as evidence presented has been generated at the level of the individual and generalized to the broader population.
- This finding substantiates assumption 2.24.

3.9 Peace education has positive effects on students’ attitudes.

A plethora of terms are used to describe education for conflict reduction – these include peace education, conflict resolution education, and education for peace. Although the terms are not synonymous, the boundaries between these types of education are frequently blurred. Similarly, the interventions and modules designed to provide education for conflict reduction vary widely in both length and content. Unfortunately, large-scale systematic reviews and meta-analyses tend to be based on programs in industrialized countries. In these settings, peace education often focuses almost exclusively on inter-personal conflict, rather than conflict between collectives or communities. The generalizability of these findings to fragile contexts and ethnic conflicts is therefore problematic. Nevertheless, these reviews bolster the credibility of evaluations of individual programs under fragility: the large-scale reviews (even if from the West) provide convincing evidence that it is possible, in principle, for education programs to influence conflict attitudes and behavior, while high-quality program evaluations from fragile contexts demonstrate that appropriate locally-sensitive interventions can achieve this even in more high-intensity environments. Nevertheless, it remains unclear to what extent the impacts can be felt at the national level.

Evidence:
- Several meta-studies support the claim that conflict resolution education has positive effects. A meta-analysis of 25 years of evidence in the United States found that conflict resolution education contributes to the reduction of antisocial behaviors among school-aged children.47

- A large-scale meta-analysis of studies of peace education programs published between 1981 and 2000 found that, among the cases where an evaluation had been carried out, more than 80% could be judged ‘effective’, although many shortcomings were uncovered at the same time.48

46 Bethke and Braunschweig, 2004, p. iii.
48 Nevo and Brem, 2002.
An example of an individual program is the in-depth evaluation of the application of UNHCR’s Peace Education Programme (PEP) in two refugee camps in Kenya between 1998 and 2001; the evaluation has shown PEP to have made a ‘documented contribution to peace in the life of the camps’. While the significant drop in the level of violence in the camps generally and between antagonistic ethnic groups was clearly also affected by other factors, both the camp inhabitants and the experienced evaluator credited PEP with a large share of the effect.

However, a five-year, measurably successful peace education program in Acre, Israel, (operating at school, parent, and community school leadership levels), suggests that the gains of even exemplary interventions can be destroyed by external shocks (in this case the eruption of the second intifada and the shooting of Palestinian Israeli demonstrators by Israeli police).

Notes:
- Units of analysis are critical qualifiers for this finding, as are aspects of education, as it applies specifically to peace education.
- This finding may provide evidence for assumptions 2.22, 2.28 and 2.29.

CASE STUDY: SIERRA LEONE

This case study presents conclusions drawn from empirical research on Sierra Leone, a particularly well-studied case, in order to provide a contextual example to some of the findings presented within this report.

Education, fragility and conflict in Sierra Leone

Fragility in Sierra Leone prior to the decade-long conflict was characterized by corruption, poverty, economic crisis, exclusion, and poor governance, all of which contributed to the large-scale collapse of accessible, state-provided education in Sierra Leone. President Momoh, in power from 1982 to 1995, stated that education is not a right but a privilege. Under President Momoh’s regime, education deteriorated significantly, a factor that increased fragility, as did the lack of connections between education and employment for a large proportion of the nation’s youth. Schools, universities and teacher training colleges were targeted and destroyed during Sierra Leone’s conflict; 70% of educational institutions in the capital, Freetown, were destroyed; and 55% of schools in the country as a whole were in need of complete reconstruction. Educational provision was seriously disrupted by conflict and by earlier educational collapse; a study estimates that 70% of the school age population had limited or no access to schooling during the conflict. A quantitative survey of ex-combatants used the extent to which individuals had access to education to represent ‘the break down of the state’ and found that it ‘may be critical to understanding the roots of the conflict’.

49 Obura, 2002, p. 34.
53 As quoted in Richards, 1996, p. 19.
54 Keen, 2005; Richards, 1996.
Lack of access to education was identified as a grievance among ex-combatants in both qualitative studies\textsuperscript{58} and quantitative studies\textsuperscript{59}. One study found that ‘anger at a collapsing education system has powerfully fed into conflict.’\textsuperscript{60} Researchers identified ‘unfulfilled aspirations’,\textsuperscript{61} ‘stifling patrimonialism’,\textsuperscript{62} ‘disenfranchisement’,\textsuperscript{63} and ‘unemployment’\textsuperscript{64} as reasons given by ex-combatants for joining fighting factions. A quantitative study found that ‘1989 school enrolment is strongly negatively related to war violence’,\textsuperscript{65} providing evidence to support the protective potential of schools.

The Revolutionary United Front (RUF), the main rebel group in Sierra Leone’s conflict, had what one study describes as a ‘love-hate relationship’\textsuperscript{66} with education. Their leadership was described by a qualitative researcher as made up of ‘excluded intellectuals’\textsuperscript{67} and free education was among one of their few demands that remained consistent throughout the conflict.\textsuperscript{68} However, the RUF leadership also appeared to be resentful of and intimidated by the educated, at one point executing 300 within its own ranks for their ‘over-education’.\textsuperscript{69} Both government and rebel fighting factions used promises of free education to recruit combatants.\textsuperscript{70}

**Education and reconstruction in Sierra Leone**

Education is consistently identified as a priority and a need by ex-combatants\textsuperscript{71} and communities\textsuperscript{72} in post-conflict Sierra Leone. Demobilization, Demilitarization and Reintegration (DDR) programs in Sierra Leone included training (vocational) and accelerated formal education options for ex-combatants. A quantitative survey of ex-combatants found that 87% of respondents who participated in DDR felt they had benefited socially from the training that they received.\textsuperscript{73} Education since the end of conflict has seen considerable investment and growth. Primary education was made free in 2001 and enrolment at the primary level has doubled between the 2001/02 school year and the 2004/05 school year.\textsuperscript{74} However, ‘hidden fees’, large class sizes, attrition rates and delayed salaries continue to pose barriers to access.\textsuperscript{75} Despite this, 83% of ex-combatants surveyed by Humphreys and Weinstein believe that access to education is better now than it was before the war and ‘many now hold positive perspectives on the activities of the current [sic] government and prospects of the country’,\textsuperscript{76} possibly supporting the idea that access to education may encourage ex-combatants to buy into peace processes.

\begin{itemize}
  \item\textsuperscript{58} Richards et al., 2003.
  \item\textsuperscript{59} Humphreys and Weinstein, 2004.
  \item\textsuperscript{60} 2005, p. 98.
  \item\textsuperscript{61} Wright, 1997.
  \item\textsuperscript{62} Richards, 1996.
  \item\textsuperscript{63} Keen, 2005.
  \item\textsuperscript{64} Keen, 2005.
  \item\textsuperscript{65} Bellows and Miguel, 2006, p. 396.
  \item\textsuperscript{66} Wright, 1997, p. 26.
  \item\textsuperscript{67} Richards, 1995.
  \item\textsuperscript{68} Wrights, 1997; Keen, 2005.
  \item\textsuperscript{69} Richards, 1996.
  \item\textsuperscript{70} Keen, 2005; Humphreys and Weinstein, 2004.
  \item\textsuperscript{71} Humphreys and Weinstein, 2004.
  \item\textsuperscript{72} Sierra Leone Truth and Reconciliation Commission, 2004.
  \item\textsuperscript{73} Humphreys and Weinstein, 2004.
  \item\textsuperscript{74} Paulson, 2006.
  \item\textsuperscript{75} Bethke and Braunschweig, 2004.
  \item\textsuperscript{76} Humphreys and Weinstein, 2004.
\end{itemize}
4. OBSERVATIONS ON FINDINGS

This section provides relevant conclusions and caveats based on the findings presented in Section 3.

4.1 The findings presented in this report provide evidence for many of the assumptions listed in section 2.2.

The findings presented within this document – all of which are substantiated by methodologically sound\textsuperscript{77}, empirical evidence – provide convincing evidence to legitimize the following assumptions from section 2.2:

2.21) Education is a critical component of humanitarian aid and should be considered the fourth pillar of humanitarian response.
2.22) Education in situations of instability possesses ‘two faces’.
2.23) Education may serve as a ‘barometer’ of a government’s commitment to and relationship with its citizens.
2.24) Education in situations of instability is a high priority for communities affected by fragility characterized as conflict.
2.27) Education provides stability for children affected by natural or manmade disaster.
2.29) Education can contribute to social cohesion.

The findings also present some evidence to support the following assumptions\textsuperscript{78}:

2.25) Education can act as a peace dividend.
2.26) The post-conflict context can offer an opportunity for educational reconstruction.
2.29) Education can contribute to reconciliation

4.2 The findings suggest that education can mitigate fragility.

This paper presents empirical evidence in the form of findings that, taken as a whole, do suggest that education can mitigate fragility.

However, there are still considerable gaps in research and understandings of the effect of education on fragility.

\textsuperscript{77} While scientific methods were not strictly required, methodological soundness was assessed according to whether the evidence went beyond mere personal impressions and anecdotal accounts, was free from obvious bias and critically considered alternative explanations.

\textsuperscript{78} This list includes assumptions for which fewer than 3 findings provided evidence and assumptions that were not conclusively backed up by a single finding.
4.3 Much of the existing research on education and fragility is not based on empirical methodology.

Although the literature on education and conflict, emergencies, instability, crisis, disaster, and reconstruction has been growing steadily over the past decade, these studies are often based on the experiences or reading of the authors and do not use a clear quantitative and/or qualitative methodology. Many excellent reports and papers — including much of the research performed by humanitarian aid institutions — were omitted from consideration because the purpose of this study was to examine evidence from empirical studies. It was also found that evaluations by aid institutions provided more data on program activities than on the impact of the program on the target communities. Such evaluations therefore only provide limited evidence of education’s effect on fragility.

4.4 Studies that make similar, but not stronger, arguments to those cited above were excluded from this paper.

Section 3.3 presents empirical findings that the researchers feel are the most sound methodologically and broadly-based. In several instances, other research exists that found similar evidence to that cited above, but — in the interest of space — not all such studies are listed.

4.5 Much of the existing research considers conflict, rather than fragility more generally.

Many studies, for instance large-scale longitudinal cross-national statistical analyses, typically focus on conflict. A possible reason for this trend is that it is difficult to define a comprehensive indicator of fragility that goes beyond state capacity. Such an indicator would have to be determined retrospectively in order to serve as the outcome variable in a longitudinal statistical analysis.

5. RESEARCH GAPS

This study has identified several areas where there is little or no empirical evidence on the effects of education on fragility.

The principal gaps identified in the course of the study are:

5.1) Lack of reliable state-generated education data in fragile states.
5.2) Geographic gaps. For example, many fragile contexts are not researched, while a few particular cases receive the bulk of attention.
5.3) Lack of evidence on long-term micro-level effects of education on fragility.
5.4) Limited evidence on the links between education and non-conflict aspects of fragility. This is largely due to a focus within existing empirical research on links between education and conflict.
5.5) Limited evidence on the links between vocational education and fragility.
5.6) Limited evidence to substantiate the assumption that education can facilitate reconciliation.

5.7) Limited evidence on the effects of education aspects other than access, content, and numerical equity. Understudied areas include management and administration, quality and relevance.

5.8) Lack of a comprehensive and generally accepted fragility index.

5.9) Lack of conceptual thinking on the meaning of fragility at levels other than the state.

6. RECOMMENDATIONS

Based on the findings and research gaps identified by this desk study, the following recommendations are offered.

6.1 Encourage the collection of reliable education data.

There is a lack of education data on which to perform macro-level analysis on the effect of education on state fragility. Supporting government structures to collect more reliable education data will provide valuable information for field activity as well as strengthen local administrative and research capacity. Importantly, the lack of official statistics for a particular region or group is in itself indicative of low state capacity and hence fragility.

6.2 Push beyond primary education.

Universal primary education alone is not enough to alleviate fragility. Nearly all the channels through which education can be found to mitigate fragility require higher levels of schooling. Deficiencies in state capacity resulting from a lack of qualified administrators require personnel with at the very least secondary, if not post-secondary, training to overcome these deficiencies; youth's ambitions do not end with primary school and their unemployment and frustration at the critical age of young adulthood call for post-primary training pathways; the right audience for effective peace education at high cognitive levels is likewise of post-primary age. Clearly the agenda for education and fragility needs to put a strong emphasis on strategies at the crucial level of secondary education for young adults.

6.3 Promote the use of education indicators as an “early warning mechanism” for state fragility.

Education indicators are particularly suitable to serving as early warning signs of an increase in state fragility. In some situations these indicators are already being collected regularly. As seen in the Sierra Leonean case study above, the degree to which individuals have access to education may be used to gauge the extent of a state’s fragility. While such indicators may require a functional Education Management Information System (EMIS), this is often not a realistic expectation. However, rapid assessment methodology, performed periodically in a sample of towns and rural centers,
can provide a picture of the stability of an educational system.

Education trends such as declining enrollment or transition ratios, worsening gender parity indices, regional disparities, and the like are relatively easy to recognize and almost certainly indicate fundamental challenges to state stability, especially if they constitute the reversal of a positive trend.

However, even in highly mature administrative environments such as the US, official education statistics are often inflated for political effect.79 The data must be analyzed with caution and cannot be taken at face value.

6.4 Seek evidence on the long-term micro-level effects of education on fragility.

This review of the available evidence shows that two types of research evidence dominate:

- statistical analyses of long-term macro effects of education levels in the population during democratization, civil unrest, violent conflict or civil war; and
- studies on the short-term impact of educational interventions at the micro- or individual level on attitudes – these are often ethnographic studies but are sometimes quantitative analyses of questionnaires.

Long-term micro-level studies are needed in the form of longitudinal household/individual surveys or tracer studies. Such research will help assess the impact of education on actual behavior, such as whether certain levels of education increase the risk of rejoining an armed group.

6.5 Seek evidence on the link between education and non-conflict-related, low-level fragility.

Situations of violent conflict are the most-researched aspect of fragility and its link with education. There is virtually no research evidence at all on how education impacts fragility in the form of low state capacity, or moderately disfunctional political systems.

6.6 Advocate for broadening the geographical scope of evidence.

The bulk of the literature on education and conflict is focused on a small number of geographic areas that receive a disproportionate amount of attention. Research on peace education initiatives often focuses on Northern Ireland or Israel-Palestine. The Balkans, the Great Lakes Region, and West Africa also serve as recurrent case studies for humanitarian or policy analyses, while Chechnya, Burma, Kashmir, Colombia, and Iraq, to name just a few fragile states, are under-researched by comparison. This is problematic because some of the most popular case studies are at the same time among the least representative.

6.7 Lobby for the inclusion of education in fragility research conducted by third

79 Dillon, 2008.
parties.

INEE cannot afford to commission comprehensive large-scale research directly. However, much could be gained by lobbying for the inclusion of an education component in research projects by third parties.

For example, a recent research program for the Micro Level Analysis of Violent Conflict – MICROCON, a five-year EC-funded research program on the ‘conflict cycle’ – involves 28 different research projects in 40 countries by 22 institutions. While educational issues are sometimes addressed in the studies (some of which are listed as evidence above), the link of education and conflict is not among the overarching research themes – unlike health. This is a wasted opportunity.

6.8 Lobby for building research into large-scale interventions in fragile (particularly post-conflict) contexts.

When designing large-scale educational interventions, quantitative and qualitative evaluative and independent research should be built in. Intervention design should endeavor to measure and evaluate both the tangible outputs of programming activities and the impact of programming on the target communities.

6.9 Advocate for consideration of the wider field of educational studies in the design of research projects on education and fragility.

In thinking about the function of education in reducing state fragility, we cannot ignore the vast amount of evidence we have for how education itself functions. For example, since we know that the implemented curriculum may be quite different from the official curriculum, we cannot focus exclusively on the latter in situations of fragility or conflict. As another example, the question of preparing school leadership to contribute to overcoming fragility must be taken seriously, since we know that whatever schools achieve, their ability to do so is highly dependent on effective school leadership.

6.10 Continue to work on integrating education with other sectors.

One clear pattern in the evidence is that educational interventions and investments cannot work in isolation. This is true at all levels. At the individual level, the effect of educational interventions on peaceful attitudes does not last without the positive reinforcement of objective and visible improvements in security and the reduction of real grievances. At the macro-level, the positive effect of education on reduction of fragility relies on the potential for educational attainment to translate into improved economic opportunities. In fact, in the absence of employment opportunities, relatively high education may even constitute a risk factor for conflict.81

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80 See Micro Level Analysis of Violent Conflict (www.microconflict.eu) [last accessed 2008-04-02].
6.11 Actively shape the evidence discourse among donors.

Our ability to obtain hard empirical evidence in situations of fragility is fundamentally limited. Practical and ethical limitations will always preclude ‘experimental’ research set-ups, for instance; certain kinds of evidence will simply never become available. Accordingly, INEE should reject a discourse that demands quantitative empirical evidence at the program level as the sine qua non of best practice.

All the evidence referred to in Section 3 can be – and in some cases has been – questioned from a methodological point of view. Operating in an open, complex system, evidence on the effect of education on fragility will never be unassailable. Consequently, advocacy cannot hope to rely solely on convincing evidence, but must continue to make use of normative, rights-based arguments.

6.12 Balance advocacy with managing expectations.

This review has shown that sound evidence exists for certain types of educational benefits, such as long-term effects on macro-stability. However, there is no evidence that educational interventions and investments are a panacea at all levels (individual through national), on all time-scales, and/or for all aspects of fragility.

6.13 Further develop Fragility Impact Assessment tools for education.

Tools for Conflict Impact Assessment have proven to be useful for guiding thinking during the analysis, design and implementation of programs to broader societal impacts beyond the immediate program participants. A logical next step is to develop similar tools for other aspects of fragility. USAID’s 2006 assessment tool is a useful start and the adoption and refinement of a standard tool promises greater success than the proliferation of many new tools. The USAID tool already mentions many of the effects identified in this report. Next steps would include adding the previously omitted dimension of fragility, disentangling the direction of causality (which points attempt to assess the suffering of education under fragility and which attempt to encourage fragility-sensitive education?), clarifying the indicators and how to observe them, prioritizing the key questions to reflect the evidence-base for which effects matter the most, and conducting an assessment exercise of how useful the tool has proved to be in practice.

CONCLUSION

After thorough review of existing empirical research on education and fragility this study has been able to tentatively conclude that empirical evidence does exist to suggest that education can mitigate fragility.

Empirical evidence has been presented in the form of findings, which as a whole lend support to the assumptions that ground work around education and fragility, and that individually relate back to the conceptual framework presented in this paper in complex ways. While this desk study does offer support, in the form of empirically sound
evidence, for the assertion that education can mitigate fragility it also points to the fact that, in general, empirical research in this area is lacking. Specific research gaps are elaborated on as are some methodological, practical and ethical limitations to gathering the kind of empirical evidence that could unequivocally clarify the relationship between education and fragility. Recommendations have been offered with the aims of closing the identified research gaps and offering promising avenues forward based on the findings of this study.
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