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Schooling in the Slums - India, Bangladesh and Sri Lanka

Camille Raillon

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Schooling in the Slums

India, Sri Lanka, Bangladesh

A study of the school drop-out phenomenon, using the method of life trajectories. The risk factors and capacity for resilience among teens and families.

Study – February 2017/ June 2018



Since 1975 the International Center for Research and Decision Support – CIRAD – has constituted one of the main services of the International Federation of Catholic Universities – the IFCU. Its mission is to promote inter-university and multi-disciplinary research. Through its publications and conferences, CIRAD opens up debate on education, for today and tomorrow.

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While CIRAD/the IFCU endeavours to ensure the quality of its scientific productions, the opinions provided therein remain the responsibility of the authors.

THE AUTHORS

This volume is the fruit of the exemplary work in the co-ordination and collation of data organized by **Mustakimur Rahman, Victor Paul, Sandra Joseph, George Thadalthil** and **Senevithna Mahakam**.

It enabled twenty-five Master's students from five Catholic Universities, all members of the IFCU, to strengthen their professional skills as social workers, legal experts, lawyers, sociologists and political scientists. Through its theoretical and practical aspects, this study has contributed to developing their knowledge in life trajectories, all the while developing their critical thinking during the data collection process. The study also allowed them to make the link between theory and practice by choosing their own field of study and by selecting profiles that reflected the study population. Lastly, it allowed each student to develop their sense of brotherhood by developing their capacity to actively listen to the young people they met in the slums.

This study was co-ordinated by **Camille Raillon**, Doctor of Political Science and specialist in the resiliency of households and municipalities, Research Officer at CIRAD/the IFCU.

Schooling in the Slums

India, Sri Lanka, Bangladesh

Study – February 2017/ June 2018

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Foreword on Academic Resilience

Our study focuses on the academic resilience of teenagers in five slums. We surveyed young people who, despite being able to continue attending school, either through their own choice, their family affiliation or perhaps due to their socio-economic conditions, have had to stop attending school without obtaining any qualifications. It is in this way that we understand the concept of dropping out, that is – to leave school without any recognised qualification.

This research-action does omit, however, teenagers born in slums, and who have benefited from “resilience mentors” – to use the term coined by Boris Cyrulnik – outside their original environment, to guide them and help them out of their conditions of extreme poverty or, in some cases, mistreatment. These teenagers, who are indeed not part of our sample as they no longer reside within the slums (as opposed to their parents), are truly examples of academic resilience to be studied further.



Teenagers at a boarding school at the shelter “Boys’ Town” – Colombo, Sri Lanka

“Boys’ Town” is a boarding school, home to 150 boys aged from 6 to 15. The centre offers them a range of carpentry, masonry and electricity training over three years. It is interesting to note that 80% of them find a job following this training.

Summary

The Take-Away from our Research on Academic Resilience

Complexity

There are protective factors and risk factors that differ according to the teenagers themselves, different regions and different slums. These factors are linked to the bi-psycho-social context (Morris Smith, 2015) in which these young people construct and create their own though mechanisms. The context is, by its very nature, complex to deal with between the genetic characteristics of individuals, their biological and socio-political environment, their family ties and events that punctuate each of their life trajectories. As an example, in Bangladesh, the earlier young people start going to school – between 3 or 4 years of age – the higher the likelihood that they will leave school prior to 12 years of age, whereas the opposite is true in India or Sri Lanka. Risk factors for certain children might be protective factors for others.

The Notion of Event Interaction

What is under study is the reports of teenagers which value the notion of interaction between events, in the form of negative memories (by which we mean disruptive events [Shapiro 2009]) and positive memories (by which we mean moments of joy and happiness). Which events (type and features), and what sequence of events, play a pivotal role in academic resilience? Why do certain children in a similar environment cope better than their peers? Our results demonstrate the existence of a link between a series of difficulties that follow the lives of people and a series of protective factors that enhance academic resilience.

Globality

We highlight that the emotional experience of each child enlightens us not only on their capacity for academic resilience, but also on their capacities for overall resilience; that of a child in an environment marked by misery, violence catastrophes, fires, floods or even cyclones, which might leave them homeless or school-less for several months or even years.

Our Intervention Model to Raise Awareness of the Benefits of Staying in School

In this report, we propose elements to gain a greater understanding of the educational environment and of the psychology of teenagers who leave the school system early. The following results and recommendations are as useful to political decision-makers in charge of primary and secondary education as for NGOs that act in the contexts of extreme urban poverty.

Following on from this research, we propose an action model in the form of a **pedagogical toolbox**, the goal of which is to raise awareness among teenagers and teachers of the benefits of staying in school. One of the elements of this toolbox is a set of profiles (of a role-playing nature with fictional characters), which will be distributed to students. The rules of the **game “One step forward”** will be explained to teachers with a pelagic interest in raising awareness of the benefits of staying in school. This toolbox will be available online in *November 2018* on the study’s website, <http://drop-out-ifcu.org/>.

Introduction

Speaking of risk factors and protective factors to gain a greater understanding of academic resilience implies underlining academic success in spite of negative prognostications. Continuing on an academic path, whereas the adversity encountered inspires predictions of failure, is thus held up as proof of resilience. What do we mean by risk factors and capacities for resilience? How does the emotional experience of each teenager provide the means to understand the consequences of early school dropout in the slums? Why is the family such a central element to be taken into consideration? Having laid these foundations, what kinds of schools would best serve slum dwellers?

Many studies claim that children and teenagers who live in difficult environments are at a high risk of demonstrating emotional and behavioural issues. These issues both influence and are influenced by their academic resilience, as well as their overall resilience.

In our case, the aforementioned difficult environment manifests itself in the precarious living conditions in slums. The authors of the report – The Challenge of the Slums – published in 2003 by UN-Habitat outlines the following definition: slums feature overpopulation, informal and poor-quality settlements, insufficient access to drinking water, lack of hygiene and a lack of security. This definition, adopted at the United Nations Summit in Nairobi in 2002, provides both physical and legal characteristics. Social dimensions are just as much of a challenge in any attempt to gain greater understanding of slums and the teenage drop-out phenomenon featured within them. How can the inhabitants, schools, families and individuals within such a difficult environment – a slum – where their physical and psychological health is jeopardised, conspire to produce academic resilience?

We shall first outline our methodology based on the study of life trajectories and on systems theory. We will then superimpose our results over risk factors and protective factors on both an individual and family scale. We will then develop our reflection on attachment theory and on the meaning and weight that events in a personal story hold in order to understand the teenage drop-out phenomenon. We will conclude by reflection on schooling, and particularly schooling in the slums.

This research-action study has several purposes. Firstly, it emphasizes the value of education in its holistic approach to school, family and individual. By also focusing on the emotional and psycho-emotional of teenagers, it rediscovers a both new and ancient phenomenon of cumulative (dis)advantages. Lastly, we will open the door to another phenomenon – compensation – as not all children living in the slums with single, isolated, alcoholic or violent parents, drop out of school. This phenomenon of compensation can be found in the mortar that binds children to their families, families to schools and schools to children. This mortar is not only made up of suffering, but of happiness and the desire to learn.

The second purpose of this report is to offer sufficiently clear theoretical elements that use our research results, so that readers may decipher concrete situations and make decisions that are both curative and preventative, adapted to their own scale, context and requirements.

Chapter 1. Methodology

1.1 Hypotheses

Our study on the teenage drop-out phenomenon in five slums – Dacca (Bangladesh), Colombo (Sri Lanka), Siliguri, Chennai and Bangalore (India) – is based on the following hypotheses:

- Dropping out from school is a social phenomenon that must be understood through the prism of the relations and communications that exist between the agents that are the most involved in education, namely families, schools and individuals.
- The analysis of life trajectories and disruptive memories – both positive and negative – provides the means to ascertain the risk factors and protective factors linked to the binds that unite the aforementioned agents together.
- There are two main types of significant events: pervasive memories and specific, one-off memories. Some, however, may be dealt with as cumulative (dis)advantages on academic resilience. When they are associated, the sum of these memories gives rise to another phenomenon, one of compensation.

Table 1: Location of the five slums under study








1.2 The Systemic Approach as a Theoretical Foundation

Jointly developed by researchers from various different domains, System Theory developed with the advent of information technology and cybernetics, a little before but mostly following the Second World War (Bertrand 1998). The Systemic Approach is founded on the concept of holism that states that, to understand how a system functions, all its components must be simultaneously studied in their interactions, without isolating them (Bertrand 1998). The creation of the Santa Fe Institute in the United States in 1984, with the support of City Corp., is a key event. This institute aims to perform research on laws that various different complex systems have in common, be they economic, biological and social, in order to define tools for analysis and forecasting.

Several important theories conceived during the 20th century have contributed to the development of complex system theory: Chaos Theory, Cybernetics as described by Norbert Wiener, as well as System Theory with significant contribution from Ludwig von Bertalanffy.

Table 2: The Minds behind Systemic Thought

Norbert Wiener	Ludwig Von Bertalanffy	Jay Forester	Edgar Morin	Niklas Luhmann
1894/ 1964	1901/ 1972	1918/ 2016	1921/ ...	1927/ 1998
				
La cybernétique	La dynamique des systèmes	La 'systémologie générale'	Le 'principe systémique' et la complexité	La théorie des systèmes sociaux

The Systemic Approach draws on the notion of systems (Morin 2005). A system is a group of dynamically interacting elements, whose organization depends on its goal. According to Durand (Durand 1983), structurally speaking, a system includes four components: a border that isolates it without cutting it off from its environment, identifiable elements, a transport and communication network and locations to stock material, energy or information. Functionally speaking, a system is made up of flows of diverse material, a decision-making hub that receives information and transforms it, retroactive loops and periodicity. We might consider the following to be social systems: a family, a school, a street, an organization, a company and even an individual, in that an individual

possesses their own systems of belief and of emotions that communicate between one another (Schwartz 2009).

1.3 The Systemic Approach in Education: Practical Experiments

If, in parallel to technological theories, we highlight more personalistic and spiritual practices of systemic thought, it is because it is essential to contextualise our study. It is true that education in India, Bangladesh and Sri Lanka is heavily marked by a colonial heritage, but is equally marked by the significance of spirituality in these places. In India, Brahman universities – the world's first universities – provided the example of education founded on philosophy and religion, yet also focused on mathematics, history, astronomy and even the laws of economics. Buddhist education appeared shortly after as a reaction against the cast spirit and the educational monopoly held by the Brahmans, though it was not without its own rigidity (Faure, 1972).

This spirituality still influences social life, as illustrated by the caste system, the perception of any family through the prism of education and the values that it fosters. Sapru (1999) studied the socialisation practices of Indian families in Delhi and migrant Indian families in Geneva. Few differences in the beliefs and educational practices regarding their teenage children were noted between these two groups of parents. For the majority of them, their parental beliefs were linked to Hindu religious thought. The Hindu notion of *dharma*, meaning 'moral duty', 'truth' or 'just action', was often heard – either explicitly or implicitly – in the rhetoric of the parents.

We wish to highlight three authors to inspire us in the modeling of a new style of school, designed with both the structures and beliefs of families in mind. These three authors and practitioners value – along with studying society – knowledge and self-development.

Table 3: Authors on Systemic Thought and Education

Alexander Neill	Abraham Maslow	Jiddu Krishnamurti
		
L'école libre de « <u>Summerhill</u> »	Théorie de Maslow : l'éducation consiste à faciliter une connaissance de soi dans son appartenance à l'univers.	Théorie de <u>Krishnamurti</u> Critiques des sociétés contemporaines : « agressivité des religions organisées » / Liberté intérieure

Alexander Neill was a Scottish educator, the founder of the Summerhill School in England. He was one of the first to formalise the idea of a school based on freedom. We should point out here that in Italy this movement was largely advocated by Maria Montessori.

The American psychologist Abraham Maslow, renowned for his Hierarchy of Needs, offered us a vision on humanistic psychology that remains under-appreciated. He explored that which is noble in human beings in order to foster development. For him, human needs (needs that he calls “meta needs” or “intrinsic needs” and which are beyond fundamental needs) are the keys to understanding human beings in their most noble motivations. In these motivations a kind of instinct can be found – one that is unique in humans – taking them to the kind of self-fulfilment that leads to the greatest respect for others (Maslow 1943).

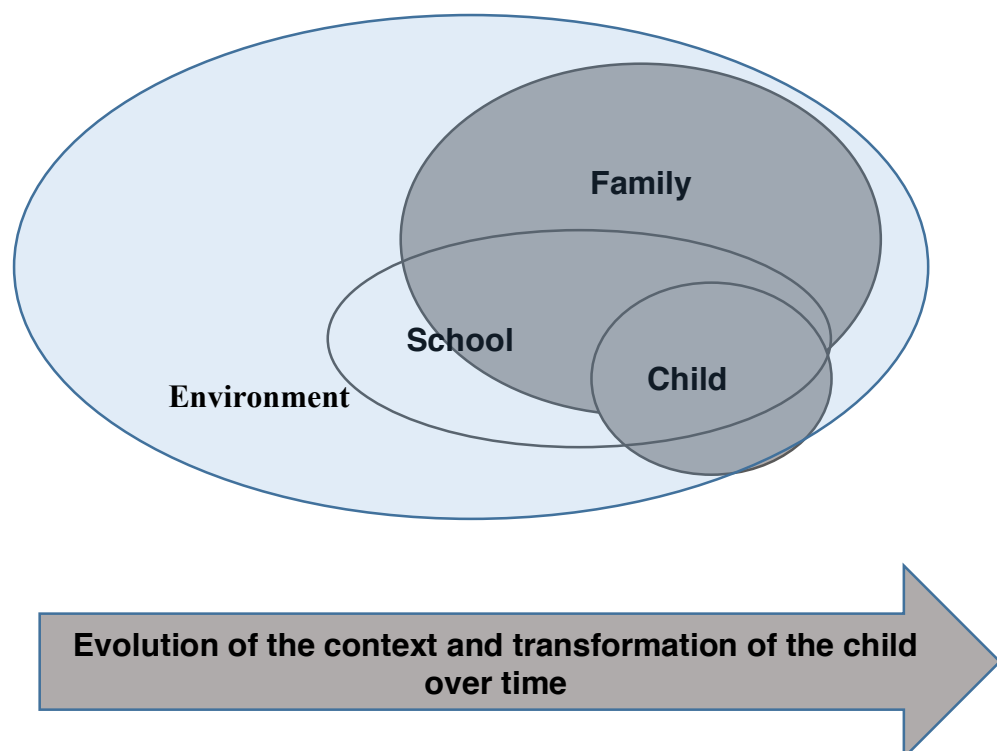
We should add that Jiddu Krishnamurti was also a great thinker that might inspire schooling in the slums. Krishnamurti belonged to a Brahmin family with ten children. His name was Jiddu but was known as Krishnamurti in honour of the god Krishna, who, like him, was an eighth child. Krishnamurti was a small child, a dreamer who hated school, to such an extent that his teachers thought he might be mentally retarded. For a long time partial to the Theosophical Society, Krishnamurti then veered away. He is today considered a “spiritual being” who fought against any spiritual authority. In his work *on education*, the author criticises the globalisation of education: “We are turning out, as if through a mould, a type of human

being whose chief interest is to find security (...) with as little thought as possible (...) This fear of life, this fear of struggle and of new experience, kills in us the spirit of adventure” (Krishnamurti, 1956). For Krishnamurti, education – much like family – slows individuals down in their exploration of their differences and their free thought. Humans must be made aware of intelligence without confining them to a mould. Individuals are composed of multiple entities, which generate complexities and conflict. The goal of education is to take into account these separate entities, so as to diminish conflicts and pain. In a word, to know the nature of true education, one must question the entire meaning of life.

1.4 The Systemic Approach in Our Case Study

The first step in our work consists in framing the educational system. The issue of where to draw boundaries is quite contentious as it involves certain arbitration. We have limited the education system of our field of research to four components: the child (as they create through their own psyche their own thoughts), the family the school and the socio-political and biological environment. Without the biological environment there is no communication between social systems and thus between psychic systems.

Table 4: The Education System and its Limits. A Contextual Model



To understand the phenomena of teenage drop-out and academic resilience, we should highlight that these circles produce consequences that cannot be reduced to an analysis of separate parts. The exchanges between them trigger automatic adaptations. From the very beginning, vulnerability – much like resilience – must be understood through the prism of time and interactions that permeate the different spheres (individual, family, school, environment).

1.5 The Data Collection Method: Life Trajectories

Who are these young people and what do their pathways through life teach us, in order to innovate in education? Why is it that, in comparable life conditions, some of them continue to attend school while others drop out? Studying life pathways is a recent addition to social sciences. The life pathway, also known as the life trajectory – or LT – is characterized by a type of study that is both multi-disciplinary (Gaudet 2013; Sapin et al 2007; Bessin 2009) and inter-disciplinary with regards to the proceedings of individual lives (Lalivie d'Épinay et al, 2005; Levy et al, 2005). Perceived as both a *notion* and a *method*, the LT demonstrates its added value through its association with biographical study. According to Kohli, a biography is a story told in real time about past events and about the vision of a person's future (Kohli, 1986). As this involves providing a point of view, it is necessarily subjective, because there are complex operations involved in the reconstruction of the past (Mendez 2010).

The chronological telling of a life story is relatively factual (Gaudet 2013). What happened? When? A biography together with a chronological story provides the means to understand a life trajectory. A life trajectory is represented by different trajectories put together in different domains of life that are superimposed upon each other. In our case study, we have selected three research areas: emotional & psycho-motor (health), relational & behavioural (link between the family, the teenager and the school) and lastly socio-political & biological environment (perception of living conditions). We then attempted to decrypt the memory of the teenagers in our sample by memory type and by age range.

The Five Principles for LTs according to Elder, Johnson and Crosnoe (2004)

- 1.** The trajectory of an individual is spread out over their entire life. It is influenced by social, biological and psychological changes.
- 2.** Individuals are responsible for their own life trajectory.
- 3.** Time makes it possible to measure the duration of transitions (order and temporality)
- 4.** Trajectories are linked to other lives and relations between individuals (social networks).
- 5.** The historical and social context influences biological & psychological development, as well as individual trajectories and human action.

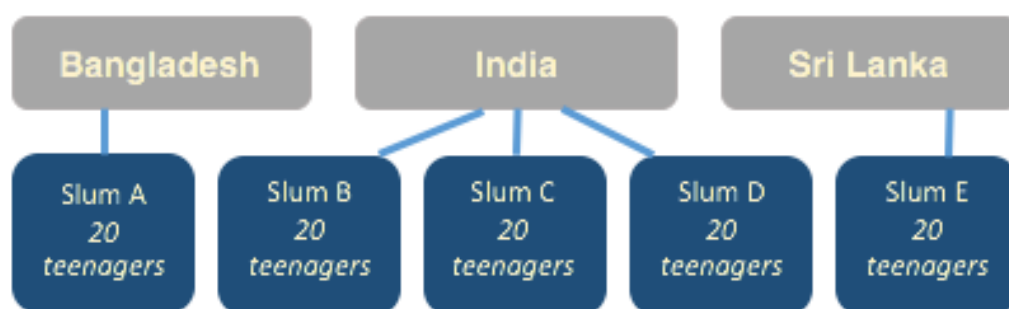
It is important to note that LTs draw out the principles of cumulative advantages and disadvantages ((McDaniel & Bernard 2011; Bourdieu 1986; Dewilde 2003; Ferraro & Shippee 2009). This results in snowball effects that inevitably engender handicaps for some people, and (dis)advantages that create human suffering. This is, indeed, the crux of it, dropping out would not be a problem if it did not lead to so-called “invisible” young people, who often suffer psychologically and physically as they are left to their own devices, in environments characterised by a high risk of urban violence, human trafficking and extreme poverty (UNICEF, India 2009).

1.6 Our Approach within Its Context

Sample Selection

Our study focuses on three countries, five slums and the LTs of 100 teenagers, between the ages of 12 and 17, attending school or otherwise. We should note here that gender was taken into consideration. This research compares two groups of teenagers: drop-outs and school attendees.

Figure 5: Our Methodological Approach



In principle, a population sample can be described as representative if its units are selected via a process that requires that all members of the population have the same probability of being a part of the sample. Each national team was asked to select 20 teenagers per slum, 10 having dropped out of school and 10 having remained within the school system. An equitable proportion of boys and girls had to be represented within the percentage of drop-outs. If, for example, the drop-out rate among boys were higher than that of girls, then the sample would include more boys.

We proposed a stratified sample selection method in each slum. Given the diversity of populations over each region and each slum, each partner university was accountable for this task, based on their knowledge of the fields under study.

A Qualitative and Quantitative Method

Our study refers to a factual and narrative method of life trajectories – or LTs. This angle is designed to be both quantitative and qualitative.

It is quantitative in the sense that we have gathered information on precise events – *what, who, when*. Having said that, to understand the weight of an event, we were also interested in the way in which the teenager appropriated it. The experience of same event, let us for argument's sake say the death of a father, will depend on the individual concerned (their character, their values, their relationship with the deceased), as well as on the support of their friends and family and thus on the communication mechanisms within the family unit itself. This work is based on the inevitably subjective memory and perception of the experiences. It is in this way that our approach is also qualitative.

In this study, we carefully chose a grill of both open and closed questions pertaining to one or another of these approaches. The particularity of our

study stems from the fact that we classified the types of answer following (and not prior to) the 100 hundred interviews with teenagers.

The Training of our Researchers

The researchers, around thirty students and professors, all received training in India and two online training sessions in the collection of life trajectories between January 2017 and February 2018, as well as support in the form of personalized emails on a daily basis. That said, researchers are unique individuals with their own personality, emotions and diverse motivations. One of the limits of our study can be found in this diversity, which could be considered as much a strength as a weakness in our study. Some researchers went further in their dialogue with the teenagers than others. Some were able to obtain more information by taking more time with certain teenagers. Others still may have been affected by the stories of some teenagers, which may have affected their transcriptions and their capacity to maintain the distance required to remain objective.

Bias

The life trajectories are structured around events that were collected systematically. They form the basis of our study. Our results state that academic resilience, much like dropping out, can be understood within the more general framework of global resilience. The main limitation of our study was, of course, quickly recognised as time – the time of our interviews. Some of the young people interviewed required more than just a 2-hour interview to open up – some needed days... weeks... even months. Another temporal issue was our timeframe, from 0 to 18 years. In this vein, it would be interesting to take a leaf out of Harvard University's book and follow life trajectories over several decades. Indeed, for today's youth, a situation of distress and risk of academic failure no longer means their lives are broken and that they can't find other resilience mentors elsewhere than school. They might – in the long run – succeed better than children who manage to obtain a tertiary degree.

Chapter 2.

Resilience in the Face of Events: Risk Factors and Protective Factors

2.1 Resilience and Academic Resilience

Prior to speaking of *academic* resilience, it would be ideal to go back to the hotly-debated term of *resilience*. Resilience can be defined as “a bio-psycho-social and cultural process that fosters post-traumatic growth and which is organized intersubjectively through relations with others” (Cyrułnik & Jorland 2012). Resilience is considered a dynamic, evolving and adaptive process, in contrast to a static and immutable characteristic (Delage 2008).

As for academic resilience, it is defined as the fact that a child continues their schooling normally whereas – due to the difficulties heaped upon them – they should be destined for failure (Bouteyre 2008). In 2004, Ionescu insisted on the fact that this type of resilience is in “stark contrast with the probability of failure” seen in children at risk who – in spite of everything – actually succeed academically (Bouteyre 2008). When, in the five slums under study, between 40% and 70% of the teenagers drop out of school (according to the universities present in their zone and which studied them) we can unquestionably speak of academic resilience for those who *do* continue to attend school. Can a child’s academic resilience be questioned, when they must face such a difficult situation as living in a slum? Can the accumulation of events and various chronic shocks in the form of micro-traumatic experiences get the better of a pupil who loves school? If so, how can we develop a more refined preventative approach to enhance academic resilience and thus reduce the risk of dropping out?

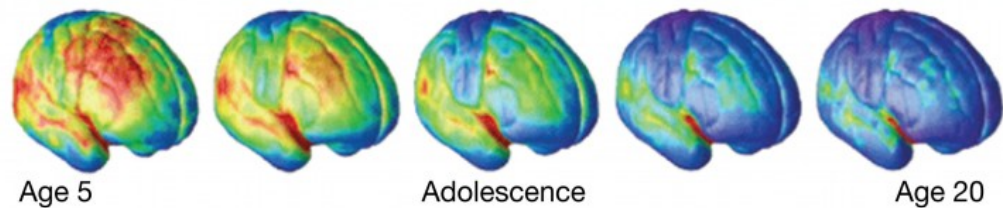
Speaking of risk factors is to akin to the concept of resilience and doing so of protective factors involves also speaking of the vulnerability of individuals and families in order to confront adversity. Vulnerability is defined here as sensitivity in its synonymy with fragility. We are – by our very essence – sensitive, which leads us to act and react. Lastly, we all possess characteristics that make us vulnerable to certain types of aggression and we possess others that protect us in the case of certain events.

2.2 The “Event” and Stress Management from a Biological Perspective

It all happens in the brain, where the intimate world of emotions and interior language is created. The brain is made up of white and grey matter. White matter might be imagined as roads that lead to cities and villages (grey matter). The more roads there are, the more quickly information will be treated. Certain smaller roads will be reinforced, creating expressways as the brain develops and becomes more specialised. We are more open to learning languages at the age of 3 than we are at 50 years of age. As a child develops, they will increasingly use these high-speed expressways (specialization and modeling of the brain).

Figure 6: The Brain and its Development

Dynamic mapping of human cortical development

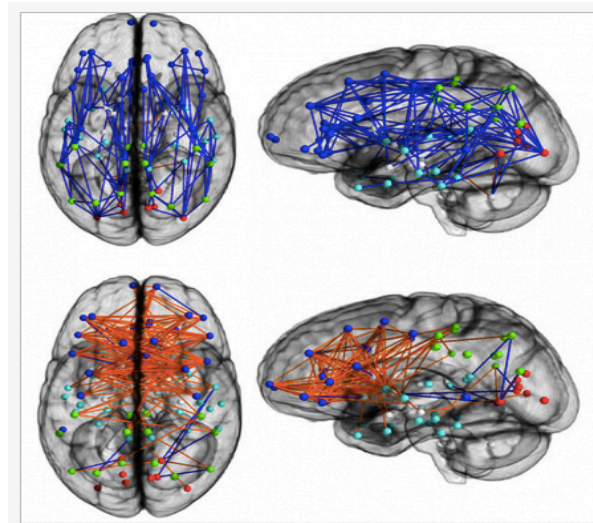


Source: "Dynamic mapping of human cortical development during childhood through early adulthood," Nitin Gogtay et al., Proceedings of the National Academy of Sciences, May 25, 2004; California Institute of Technology.

This flexibility in the brains of children and teenagers teaches us several things when faced with a stressful event or an emotional shock. Firstly, our way of thinking evolves over time, according to our age, as the elements that make up our brains change over time. In addition, and because their brains are not yet those of an adult, children are not able to regulate their internal world and conceptualise as they do not have the cognitive structures to do so. As such, children remain dependant on the functioning and model of their parents and teachers to regulate their emotions. That is why any talk of academic resilience involves an assessment of the family and school to regulate any emotional fluctuations. Lastly, helping children to think differently about the traumatic elements in their daily lives is a path to exploring the inner workings of the school, in such a way that the child involved may learn to change and develop new bonds of attachment to self-regulate, integrating their own perceptions and experiences of the world.

We should also note that there are fundamental differences between the brains of women and those of men. People of different genders do not think in the same way; the internal structure of the brain differs according to our gender.

Figure 7: The Brain and Gender



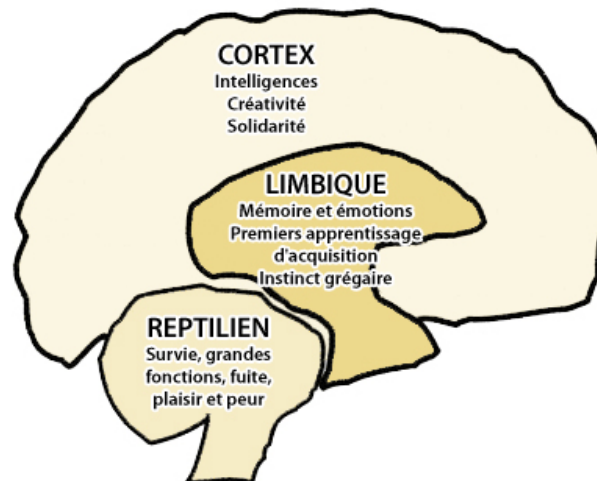
*Imaging S. Bohler
The male brain, above,
shows its internal
connections in blue.
Clearly visible are the more
linear connections,
compared to the female
brain, below, which
demonstrates more
horizontal connections.*

If we focus on the question of stress, several elements draw our attention. Firstly, the reptile part of the brain that we share with all animals and which functions as a reflex; confronted with stress, we might freeze, fight or flee. Once the danger has passed, other cerebral structures process the experience – the limbic brain, or the emotional brain, takes over, “it is now possible to confront danger thanks to a new aptitude in the capacity to share emotions and take care of others. We then reduce stress levels through the relational quality of our lives” (Delage 2008). Lastly, the brain’s intelligence zone, or the part of the brain that is the most specific to human beings, this part has control over other parts of the brain, It provides the means for mentalising, using the experience, abstracting, communicating and also symbolizing.

It is through this mentalising work that resilience is possible, by playing a role of emotion regulator. It is not the objectivity of a situation that marks us the most (hunger, coldness, blows, all of course play a role), but the representation that we make of the events and which comes to be consolidated in our interior world. For some poverty is experienced as a negative event while for others it is transcended into a struggle. Our suffering forces us into transcendence, which is why deprivation early in our lives creates momentary vulnerability that our emotional and social encounters might repair or aggravate over time. In the same vein of

thought, we can see that resilience is a process that is never truly acquired, as this mentalising work is intrinsically perfectible and forever-changing. A shock or a traumatic memory evolves at the same time as both ourselves and our capacity to mentalise it.

Figure 8: Three Brains, Three Foundations



The young brain matures with time, from the basic functions up to the superior maturity of functions at the level of the cortex, as Piaget and others have hypothesised. The cognitive capacities of children vary depending on their stage of development. What is interesting is that certain shocks that take place prior to the pre-linguistic period can leave traces and difficulties in adulthood in a person's capacity to express themselves verbally (Morris-Smith & Silvestre 2015).

2.3 The “Event” and Stress Management from our Study’s Perspective

The term ‘trauma’ in Greek means “damage to the mind, body and soul”.

We discovered that for teenagers, different types of events can cause traumatic reactions – the death of a father, an accident, moving house –, not to mention less significant events, such as failure at school, humiliation or social differences. What we are referring to here are disruptive events (Shapiro 2009).

The results to the questions we asked the teenagers confirm the studies on sub-systems carried out by German sociologist Niklas Luhman.

To the open question, “Could you tell us about your three favourite memories?”, we can see four different types of answer. The first is of a

psychological type that is unique to an individual and is the fruit of their particular thought processes and construction, an example of which might be “I enjoy dancing immensely”. We also see a simple, fleeting interactional type of answer, wherein two psychological systems are communicating, e.g. “I remember that wonderful day when we went to the beach with father”. Moreover, we should underline answers of a more complex nature, as they pertain to an individual’s participation within a group. These are more complex as, in order to participate, an individual must be a member of said group and adhere to specific rules of behaviour. The role of each member is as important as the structure of the organization and symbolic means of communication such as the truth, morals and values, e.g. “my favourite moments are monthly family get-togethers”. The fourth type of response stems from the societal system and is linked to various aspects of teenage social life, e.g. “I love school, I have lots of friends there”.

In answer to the open question “Could you tell us about your three most traumatic experiences in your life?”, we see similar phenomena. Psychological-type answers include “the day I tried to commit suicide”, whereas simple interactional answers include “the day my mother hit me in front of my friends”. More complex, and equally wide-ranging, answers, pertaining to an organizational structure (particularly within their family) and to communication relations which are carried out between group members include “I get scared every time my father hits my mother”. Lastly, there are answers related to social organization and generally linked to a communication break-down, one that has a particularly strong impact “the day when I had to leave school is one of my saddest memories”.

In these two cases, whether we are talking about a negative or a positive memory, an individual’s psychological system produces thoughts by reconstituting their story and re-ordering their memory. It produces combinations, representations and a way of thinking that is never frozen in time, as we highlighted earlier.

2.4 General Profile of Teenagers Featured in our Study

Who are these teenagers in the slums? What is the immediate cause linked to the drop-out phenomenon? At first glance, apart from the slum in Siliguri (Northern India), we can see equal distribution between teens who had dropped out and those who attended school.

Moreover, if the stratified sample was respected across the three countries, with particular care as to gender, we can state the following: Bangladesh has the greatest discrepancy between boys and girls – 71% of the girls surveyed attended school, compared to just 38% of the boys surveyed. In India, contrasts between slums are also clearly marked – there are fewer drop-outs in Chennai than in Siliguri or in Bangalore. If we lastly look at religious criteria, we can see that the Buddhist boys in our sample had not dropped out of school.

Table 9: Distribution by Gender of Teenage School Attendees/Drop-outs

		Girls		Boys	
		attendees	drop-outs	attendees	drop-outs
Country	Bangladesh	5 (71%)	2 (29%)	5 (38%)	8 (62%)
	India	14 (47%)	16 (53%)	14 (47%)	16 (53%)
	Sri Lanka	5 (50%)	5 (50%)	5 (50%)	5 (50%)
Town	Siliguri	5 (45%)	6 (55%)	3 (33%)	6 (66%)
	Bangalore	5 (56%)	4 (44%)	5 (45%)	6 (55%)
	Chennai	4 (40%)	6 (60%)	6 (60%)	4 (40%)
Religion	Christians	2 (50%)	2 (50%)	5 (50%)	5 (50%)
	Buddhists	2 (50%)	2 (50%)	2 (100%)	0 (0%)
	Muslims	8 (50%)	8 (50%)	8 (44%)	10 (56%)
	Hindus	12 (46%)	11 (48%)	9 (39%)	14 (61%)

Delving deeper, we wished to refine the idea of “dropping out” and attending school. Indeed, it is possible to both go to school and work, it also possible to drop out of school and do nothing, and then again to work and drop out of the school system.

Table 10: Distribution School and/or Job Versus “Doing Nothing”

		School only	Work and School	No work/No School	Work only
	Overall	46 (46%)	3 (3%)	22 (22%)	29 (29%)
Gender	Girls	23 (49%)	1 (2%)	10 (21%)	13 (28%)
	Boys	23 (43%)	2 (4%)	12 (23%)	16 (30%)
Country	Sri Lanka	10 (50%)	0 (0%)	4 (20%)	6 (30%)
	Bangladesh	8 (40%)	2 (10%)	4 (20%)	6 (30%)
	India	28 (47%)	1 (2%)	14 (23%)	17 (28%)
Town	Siliguri	8 (40%)	0 (0%)	2 (10%)	10 (50%)
	Bangalore	11 (55%)	0 (0%)	6 (30%)	3 (15%)
	Chennai	9 (45%)	1 (5%)	6 (30%)	4 (20%)
Religion	Christians	7 (50%)	1 (7%)	2 (14%)	4 (29%)
	Buddhists	4 (67%)	0 (0%)	1 (17%)	1 (17%)
	Muslims	14 (41%)	2 (6%)	7 (21%)	11 (32%)
	Hindus	21 (46%)	0 (0%)	12 (26%)	13 (28%)

We can see that the students are, for the vast majority, only students. Only 3% of them work and attend school. For those in our sample who have dropped out, more of them work than those who do not.

What is interesting to note from the figures is that curricula involving alternating between school and work (sometimes called “sandwich courses”) are not held in high esteem in the slums. It may be that this type of training would provide a diploma and income to teenagers and indirectly provide for their family.

Table 11: Distribution School and/or Work, Total Population

	School only	School & Work	No Work, no School	Work only
Age of school entry (average)	3.8 years	5.7 years	4 years	4.3 years
Opinion on last school (%)				
- I love it.	91%	67%	50%	34%
- discrimination	2%	0%	0%	24%
- frustration	0	0	0	0
- violence – teacher	2%	0%	14%	17%
- violence – pupil	0%	0%	9%	3%
- difficulty/lack of interest	2%	33%	27%	21%
What Success Would Mean (%)				
Money	22%	33%	23%	46%
Prestige	33%	33%	18%	18%
Accomplishment	30%	33%	27%	18%
Well-being	15%	0%	32%	18%
Personality Traits (%)				
Bold	53%	67%	18%	36%
Altruistic	22%	33%	55%	36%
Shy	22%	0%	27%	21%
Unstable	2%	0%	0%	7%
Education received (%)				
Permissive	18%	67%	50%	35%
Structured	62%	33%	27%	14%
Authoritarian	20%	0%	23%	52%
Family Relations (%)				
Strong support	24%	33%	45%	31%
Weak support	65%	67%	41%	41%
Soft Conflict	11%	0%	14%	14%
Significant Conflict	0%	0%	0%	14%
Role of the school for the family (%)				
Very important	63%	33%	27%	3%
Important	33%	67%	41%	34%
Useless	4%	0%	32%	62%
Family Relations with the school (%)				
None	4%	33%	41%	76%
Sporadic	51%	67%	50%	21%
Regular	44%	0%	9%	3%
Hostile	0%	0%	0%	0%

Reading the % in the columns: e.g. among the young people who attend school only, 91% say they love school, 2% feel discriminated against, 2% undergo violence at the hands of teachers and 2% encounter difficulties.

Typical Teenager Profiles

School only: These teenagers enter school at a very young age, tend to love school (for 91% of them) and associate success with money in only 22% of cases. For them success means enhanced prestige in a profession and personal accomplishment. They tend to be bolder than their peers who have dropped out, who tend to be more altruistic (which is even more true for those that work at the same time as attending school). They tend to receive a structured education (62% of them) and receive strong support from their families, which place significant importance on schooling.

School and Work: They are the latest to enter school, on average, and even though many of them love school, they are also often in difficulty. They tend also to lack interest in their studies, most often associating their academic success with personal accomplishment and have the strongest tendency to be bold. They often receive a permissive type of education with strong support from their parents, who place importance on their studies, though they are not often involved in their school lives.

Neither School Nor Work: They enter school quite young (like the “only school” group), thus the age of entry at school cannot be retained as a protective factor. At a higher rate than their classmates, they are subject to violence at the hands of their teachers. This group also includes those that make the most mention of violence among pupils (9% compared to 0 or 3% for the other groups). They often see success as a means to accomplishment or well-being. They have the highest percentage of those who identify with being shy, and altruism is a trait that characterises this group. They manage, despite diverse conflicts, to be loved thanks to the happiness that is given to them. The style of education they receive tends to be permissive and receive weak support from their parents who, though they find school important, exhibit little to no involvement in their academic evolution.

Work Only: This is the group that liked their last school experience the least (34%). They often feel discriminated against or are the most often subject to violence at the hands of teachers (17% of them). Their ambitions can – for the most part – be summarised by the desire to earn money (46% of them). For this group, school is rarely seen as allowing for accomplishment among teenagers. They are unstable at a higher rate than their classmates and more than half of them received an authoritarian style of education. The family relationships that they mention tend to

involve more conflict than those of their classmates, and their parents often hold school in very low esteem.

Summary of our Results on Teen Profiles

- Each of these sub-groups has characteristics in common and differences that can be retained to explain the factors that may lead to dropping out of school.
- There are discrepancies that involve the type of education received; teenagers who were still attending school tended to receive structured education; those who either also worked or had dropped out of school tended to receive a more permissive style of education. On the other hand, the education style of those who had dropped out of school to work exclusively tended to be more authoritarian.
- There is a strong link between family relations and staying in school; teens that still attend school have a strong tendency to receive strong support from those around them and are rarely in conflict situations with their family. This statement is less true of teens who have dropped out from school.
- The importance of school within the family is a central element. The more importance the family places on school with regards to a child's success, the more the risk of drop-out diminishes.

2.5 Risk Factors and Protective Factors

The notions of risk factors and protective factors are important in qualitative and quantitative approaches to resilience as they provide the means to highlight what works to preserve and protect mental and physical health and prevent any undue damage to them. Being at risk means living through or having lived through events that can jeopardize the mental health and often physical health of subjects. These situations can stem from multiple sources, be of different natures, internal and external. They can also accumulate.

Protective factors are most often presented as enabling resistance to adversity. According to Rutter (Rutter 1985), protective factors are individual and environmental characteristics that change, improve and moderate that a subject might have when threatened or attacked. They attenuate the impact of stress and foster higher quality adaptation (Dufour, Nadeau & Bertrand 2000). A series of factors have been identified as having a protective role. Werner classes these protective factors into three categories: a subjects personal attributes, also known as internal factors, high-quality emotional bonds with family and the existence of an external network outside the family (society, school, religion), conspiring to create different forms of support (Werner 1989).

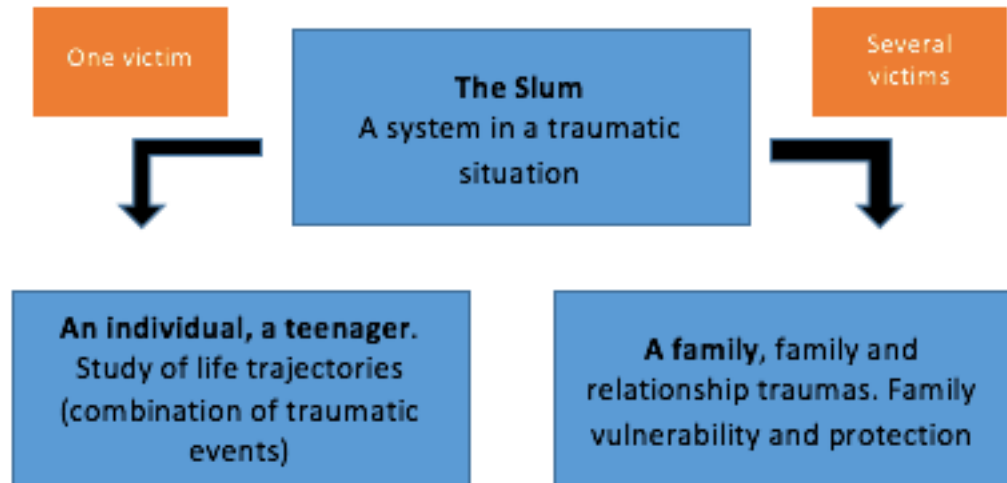
The education, at school and at home, has the purpose of protecting children. It is a central protective factor, though it can be seen as restrictive for children.

It is important to note that a risk factor for one of the members of the family might be a protective factor for the others. Such is the case for an older brother who has dropped out of school in India who financially supports the schooling of his younger brothers and sisters. Risk factors and protective factors are thus at times difficult to disassociate from each other. Another example might be seen in a child who has learnt not to react to the violence of their parents to protect themselves from being hit and might not react when prompted by a teacher at school. A protection strategy in one situation can become a handicap in another context.

This statement strengthens the idea of an ecosystemic vision of the different factors at play in the consolidation of an academic resilience protocol. Careful attention must be paid to the flexibility of protective factors and to their capacity to change over time and within

circumstances; without this flexibility, if they freeze and solidify, they are likely to become risk factors.

Figure 12: Assessing Trauma-Inducing Characteristics of Teens and Families



For the next part of this study, we will look at the risk factors and the resilience capacities of both individuals and families, as the two influence each other. The attitude of a child influences their social relationships and the attitude of their family towards them. In return, the attitude of a family influences a child and their social relationships.

Recommendations for the Management of School-Based Emotions and Stress

At Schools

- It is an established fact that sleep is essential for a child's balance and cognitive development. It nourishes the organism and fosters learning. We suggest installing **day-dormitory** spaces so that children might rest in a quiet space.
- Create **relaxation and emotion-management workshops** for different age groups, including yoga, sophrology, mental imagery, abdominal respiration etc.
- **Encourage exercise**. In accordance with the research carried out by Edmund Jacobson, we can see a reciprocal relationship between mental tone and muscle tone.

In Public Policy

1. Take into account and develop tools to measure stress among pre-teens and teens in order to enhance the working conditions of students and their academic well-being.
2. Take into account the issue of the biological and psych-physiological rhythms of children at all levels with regards to the academic schedule (calendar, hours per day and days per week spent at school etc.).

Chapter 3.

Resilience and Vulnerability for Individuals

A traumatic experience can be seen from two points of view, one from an individual perspective – how the event was experienced by an individual – and the other with regards to the group – how the event impacts the entire group and the relationships between group members. In this part, we will look at the emotional dimension and at individual psychology to gain a greater understanding of the drop-out phenomenon.

Trauma-inducing events in our lives – negative memories – are classed according to their nature and age when the event took place. They were then analysed with regards to happy events – positive memories. The purpose is to measure the impact of protective factors on risk factors in the academic resilience of teenagers. This measurement will provide the means to guide the action of schools to tackle and reduce the impact of risk factors and thus enhance the effect of protective factors.

3.1 Teenagers and Disruptive Events: Risk Factors

There are fundamental differences in the life trajectories of each and every teenager; differences that can be analysed with regards to trauma-inducing events (in that they might produce trauma) which have marked their life experience in quite specific ways. Deciphering these events will allow us to assess risk factors on an individual level.

Who are these teenagers who have experienced negative traumatic memories?

Table 12: Negative Memories versus No Memories

	Drop-outs		School attendees	
	N°	%	N°	%
Lived through negative experiences	49	94%	34	71%
Haven't experienced Trauma	3	6%	14	29%
Total	52	100%	48	100%

29% of those who attend school – versus just 6% of those who have dropped out – told us that they did not have a single negative memory to tell us. The events experienced as traumatic thus have a certain influence on the academic resilience of teenagers.

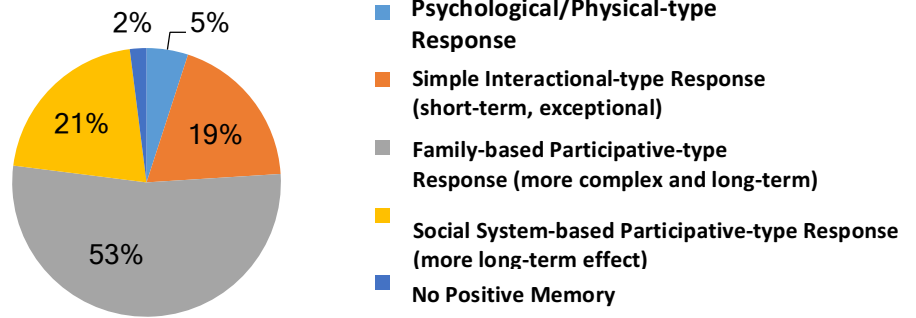
What traumatic experiences are the most often mentioned by teens? Our study tells us that there are multiple variables that we are now able to class systematically (c.f. Appendix 1 for detailed results).

1. **Psychological/Physical Response:** suicide attempt, psychological or physical suffering.
2. **Simple Interactional Response (instantaneous, punctual):** death of a father, death of a mother, death of a brother or sister, death of a close family member (uncle, aunt, grandparent), abandonment by a father, abandonment by a mother, (isolated) accident or illness in the family.
3. **Family-Related Participative Response (more complex and long-term):** regular family-based violence, consistent alcoholism of a parent, illness/handicap/accident (of a parent [long term]), new responsibility/change of status, tradition/marriage, birth/death, long-term expatriation of one parent, poverty/distress/hunger, inability to confront an extreme situation (violence, distress of a family member).
4. **Society-Related Participative Response (effect is more long-term):** move to another area, dropping out of school definitively or sporadically, failure in an examination, catastrophe within the slum, violence at school or within the slum.

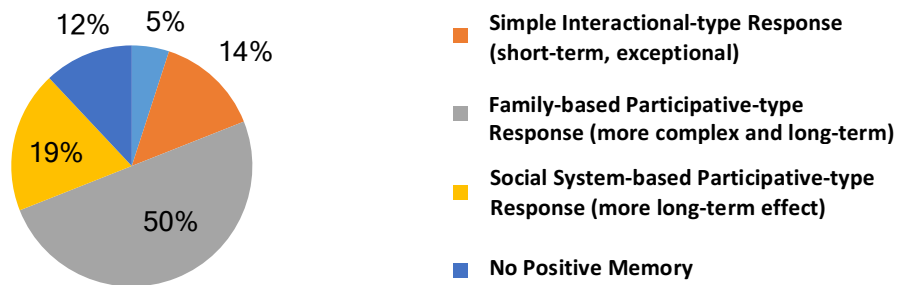
If we add up the three most disturbing negative events that were collected from our teenage subjects (those who stated that they had experienced them), our percentages can be represented by the following tables.

Table 13: Summary tables of disruptive negative events according to status, school attendee versus drop-out.

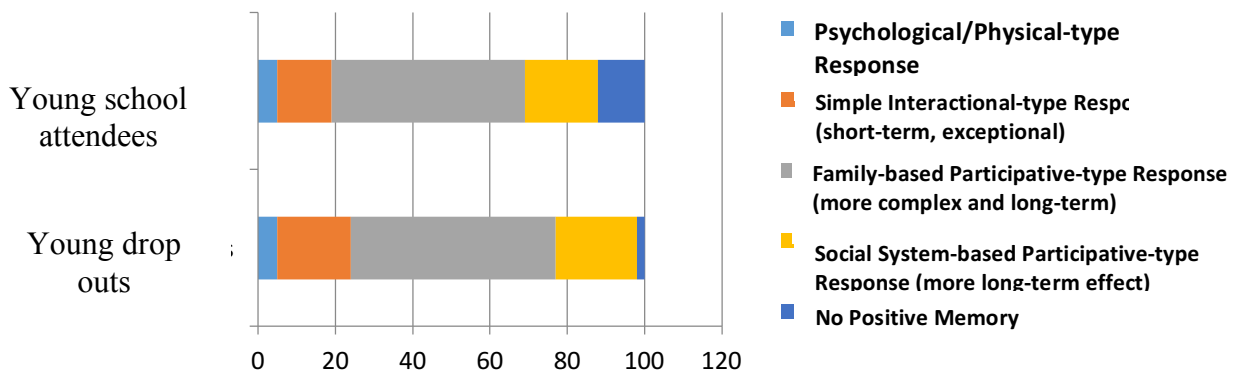
Negative Memories of Young Drop-Outs



Negative Memories of Young School Attendees



Negative Memories Mentioned (%)



Based on analysis of our results, we can state the following:

- There is little difference between the two groups when we look at the types of disruptive events on the who, except for those that claim to have had no traumatic experiences.
- That said, teens who have dropped out of school have experienced slightly more traumatic events, across all categories.
- More specifically, teenagers having dropped out of school are more often subject to family violence or consistent alcoholism of one of their parents. They are also more strongly marked by the death of their mother or father, and by the abandonment of one or both of their parents.

All teenagers are potentially at risk, but by refining the types of shocks, some are more so than others. Students who are more likely to give up studying tend to adhere to the following profile: family-based issues related to various disruptive events (family violence or parental alcoholism). Chronic deprivation which affects their socio-emotional development and their academic resilience (an average of two events out of three both pervasive and negative)

We can easily understand that, confronted with violence that a child can expect at home, mathematics or handwriting classes become an absurdity. For highly sensitive children, this might also explain limited attention spans and failure in exams; in cases where they know that – while they are at school – their father is likely to be assaulting their mother.

3.2. Teenagers and Disruptive Events: Protective Factors

We then looked at protective factors on top of risk factors. When we speak of disruptive events with a focus on positive factors, it is with particular reference to the studies carried out by Rutter. The author shows that social relationships may provide support, and also lead to tension and trauma (Rutter 2002). Parents who are overly present and whose pressure for success weighs heavily on a child might see their parenting strategies backfire. Such is also the case for friends – while having a social network can have a positive effect, precisely because friends can play a fundamental role in filling in the emotional gaps left in certain families, it does not always suffice. What counts most is the quality of the relationship established, and how well this relationship is used.

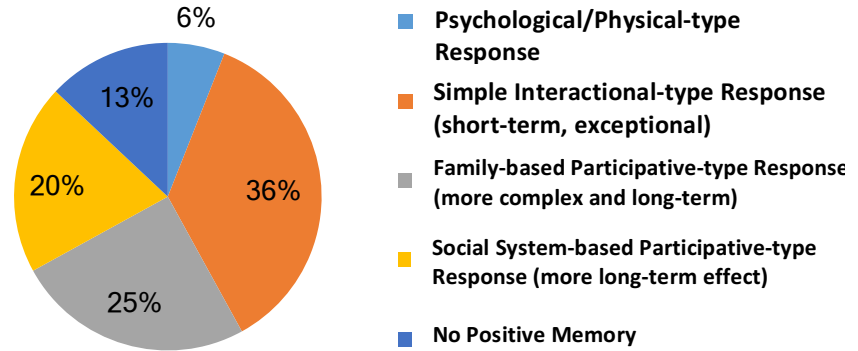
What we study in this sub-chapter are specific protective factors – ones involved in positive disruptive events. Having the memory of mother consistently tending to the injuries of her children does not provide the same thing as the memory of the day when you were 6 years old and she exceptionally gave you a comforting hug. Much as a particular memory does not have the same significance at the age of 5 or at 18 years of age.

What are the most oft-cited positive memories for teenagers, school attendees and drop-outs alike? Our study reveals the existence of four types of possible answers and multiple variables (c.f. Appendix 2 for detailed results).

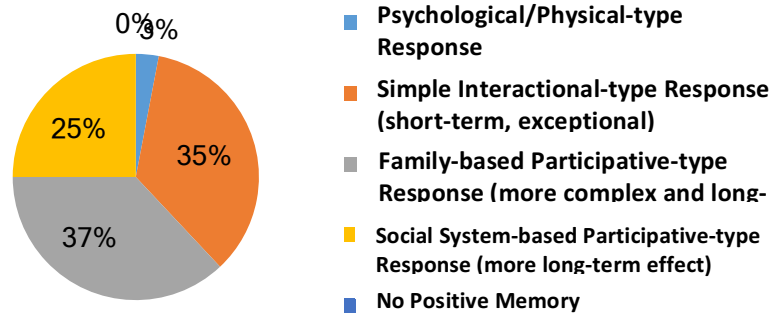
- 5. Psychological/Physical Response:** feeling linked to a passion (“since the age of...”).
- 6. Simple Interactional Response (instantaneous, punctual):** memorable day with the family, memorable day with friends, memorable day at school (prize/graduation day), memorable day in the slum.
- 7. Family-Related Participative Response (more complex and long-term):** earning money and supporting the family, attending religious events with family, sharing with family in the past (“the times when...”), sharing with family in the present (“I like it when this or that...”).
- 8. Society-Related Participative Response (effect is more long-term):** sharing with friends in the past (“the times when...”), sharing with friends in the present (“I like it when this or that...”), sharing and discussions at school, sharing and discussions in the slum.

Table 14: Summary tables of disruptive positive events according to status, school attendee versus drop-out.

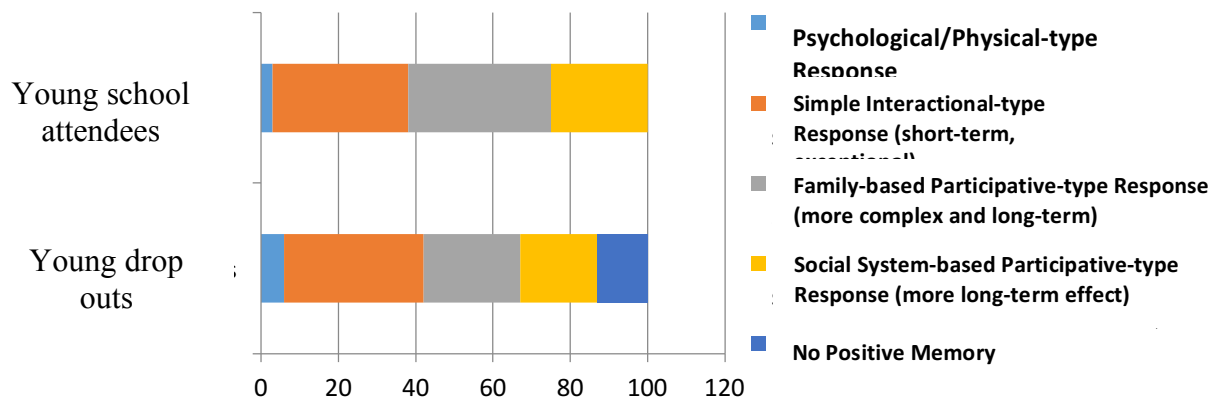
Positive Memories of Young Drop-Outs



Positive Memories of Young School Attendees



Positive Memories Mentioned (%)



Based on analysis of our results, we can state the following:

- There are more differences with regards to positive memories than with negative memories;
- Participative-type memories both within the family and in the greater community are clearly more significant for teenagers still attending school;
- On the other hand, teen drop-outs find an important happiness factor in a particular passion. Not a single teen still attending school mentioned any particular passion as a significant positive memory.

We can see that teen drop-outs have as many very precise happy memories as those who are still attending school. That said, memories linked to family or the wider social system play a more significant role in teens who are still attending school.

Sporadic memories – if they do not involve participative memories with family – reveal weaker capacities for protection and academic resilience. Because these sporadic memories are not a daily event, we should highlight that the quality of the first bonds plays a significant role in drop-out rates. If there is chronic deprivation, these teens develop a type of insecurity bond which can be reflected in their relationship with school (anger, frustration, lack of consistent effort, challenging authority).

Compensation Mechanism

Our results reveal that the life trajectories of teen drop-outs are more heavily marked when there are positive memories involving exceptional events than by pervasive events and, on the contrary, their description of negative memories are more heavily marked by pervasive events. This report questions two issues; firstly, the link between risk factors and protective factors, and also the value system and attachments between teens and themselves (self-image), their family and their school.

3.3.1 Study on the Link between Risk Factors and Prevention Factors

The oxymoron, according to Boris Cyrulnik, is a rhetorical device that consists in associating two antithetical terms. The part of the person that receives the blow suffers, while another more protected part remains the source of some happiness and joy. The two opposite forces are necessary, much like a balanced archway, in living with the traumatic experience and – what's more – using it constructively, thanks to our own resources.

Table 15: Comparison between Positive Memories/Negative Memories

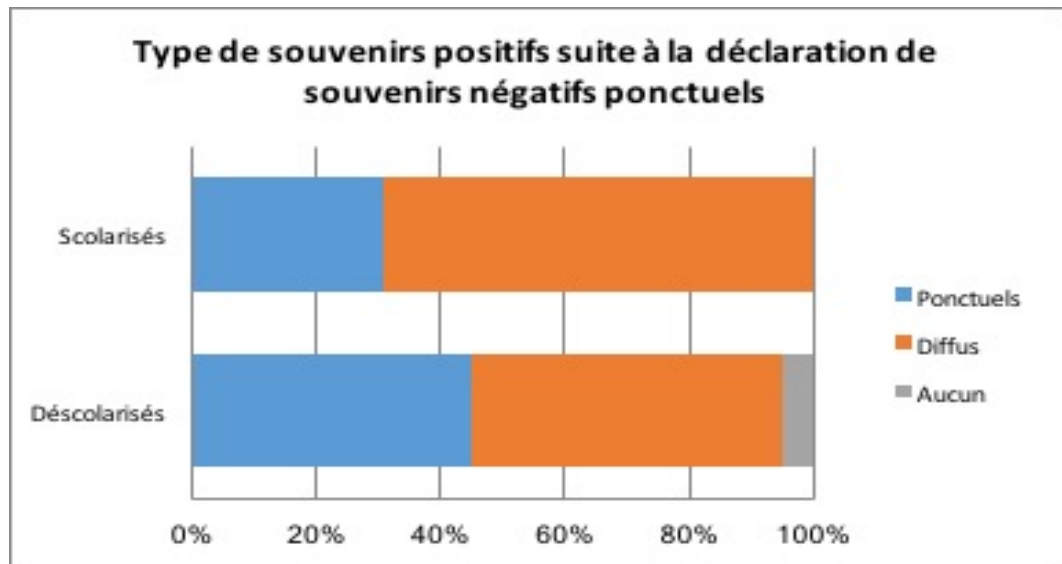
For teenagers who have dropped out of school:

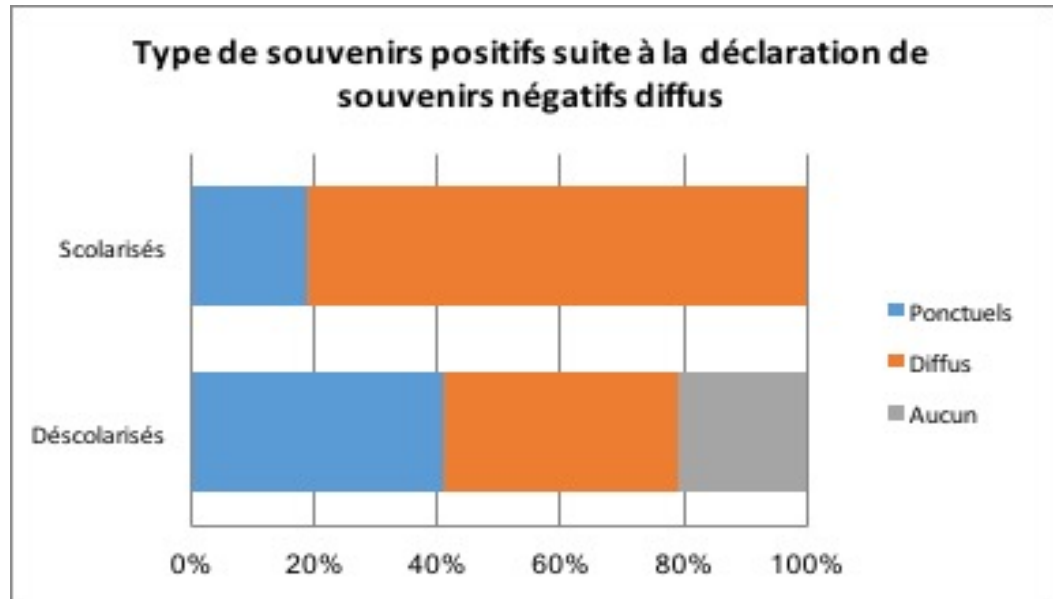
	Positive Memories			
Negative Memories	2 or 3 punctual	2 or 3 sporadic	None	Total
2 or 3 punctual	9 (45%)	10 (50%)	1 (5%)	20 (100%)
2 or 3 sporadic	12 (41%)	11 (38%)	6 (21%)	29 (100%)
None	1 (33%)	2 (67%)	0	3 (100%)
Total	22 (42%)	23 (44%)	7 (13%)	52 (100%)

For teenagers that are still attending school:

	Positive Memories			
Negative Memories	2 or 3 punctual	2 or 3 sporadic	None	Total
2 or 3 punctual	4 (31%)	9 (69%)	0	13 (100%)
2 or 3 sporadic	4 (19%)	17 (81%)	0	21 (100%)
None	3 (21%)	11 (79%)	0	14 (100%)
Total	11 (23%)	37 (77%)	0	48 (100%)

Table 16: Summary Tables Crossing Positive/Negative





3.3.2 Comparison between Teenagers: School Attendees and Drop-Outs

Graphically speaking, we can notice two elements; firstly the life trajectories of students who have dropped out of school are more often marked by events typified as “negative memories”, both pervasive and exceptional. We can also now say that following exceptional negative events, teens who still attend school more often balance out these events with pervasive positive memories than teens who have dropped out from school. The same goes, and more significantly so, following pervasive negative events, teens who still attend school claim to have more pervasive positive memories than teen drop-outs (37 teens who still attend school mentioned 2-3 pervasive positive memories).

We can conclude that the students who are more likely to drop out of school are those that, as well as one-off or regular shocks, experience chronic deprivation that affects their socio-emotional development. This is even truer if nothing or nobody comes to their aid on a regular basis, the risk becomes even higher. This chronic nature goes some way to explaining the devastating effect on teen school attendance, and this data points to the great psychological suffering of some teenagers.

Summary of our Results on Positive/Negative Disruptive Events

- There is no marked difference with regards to negative memories: both groups record higher than average pervasive negative memories.
- That said, among those who attend school that have pervasive negative memories, 81% have pervasive positive memories which may make up for them and keep them in school, while among teen drop-outs who record mostly pervasive negative memories, only 38% record pervasive positive memories.

3.4 Theory Based on the Attachment to and Weight of Events

Often human beings that are damaged to the deepest element of themselves will possess unimaginable resources, they are inexorably not condemned to recreate what they have experienced, even if these things are and will remain a source of difficulty. To transcend pain, we know that the quality of the emotional lives of young children makes up on of the main pillars of resilience. These observations take us to the Theory of Attachment developed by the psychoanalyst John Bowlby, with the idea of security offered by the closest person to the child – often the mother. She is the one who provides care and tenderness. It is important to note that at the end of Bowlby life, he expressed the desire that his work lead to increased study on resilience. For psychiatrists and psychoanalysts, our suffering forces us into constant metamorphosis. This is why deprivation early on in life creates temporary or sustained vulnerability, which can either be repaired or aggravated by our emotional and social encounters. It is thus possible to turn the tables – nothing is set in stone, and this is especially true of a child's brain. Eleven children, selected by American social security services were followed over 50 years in the aim of assessing their physical, psychological, intellectual and social state. In their teen years, we could see many risk factors appear, particularly with regards to the emotional and social aspects. Having said that, when they reached adulthood, eight out of eleven had become fulfilled adults (Werner & Smith 1982).

Attachment Theory explains the formation of emotional bonds between children and the significant figures that surround them (not only their mother). This theory highlights the impact of relationships on the socio-emotional development of a child. It is the quality of the initial relationships that are considered as the starting point for all the future relationships of a child, as well as for their confidence and for their capacity for empathy, hence its crucial role. Through our study of memories, we demonstrate the characteristics of bonds manifested by teenagers, characteristics which have an influence on a child's psycho-emotional development and on their relationship with school. The more regularly a child receives care and protection from an adult, the more likely they are to continue going to school and not develop voids of any type in their relationships. That is why it now seems essential to us to enhance – more than just the defence mechanisms that we have just outlined – reflection on risk factors and protective factors within families.

Conclusion

Our study demonstrates the existence of a relationship between a series of difficulties that go with a person's life and a series of protective factors that strengthen their academic resilience. When children are affected by crises, they can overcome these difficulties because – prior to the shock or in the midst of daily chaos (alcoholism, domestic violence etc.) – their personality is solidly built by family ecology that can safely make up for this difficulty. This may take the form of a strong bond with at least one family member, a key member who will care for them and allow them to enhance their skills for academic resilience. This protective factor, in the form of a pervasive positive memory, has a direct effect on and in the health of a child. Each crisis is thus balanced out by a compensatory effect.

Recommendations Preventative and Therapeutic Actions

At Schools

- We advise implementing **creative spaces** for children between 2 and 6 years old (drawing, singing, dancing etc.);
- We also recommend the creation of **speaking spaces** for bigger children. This helps children to speak and strengthens the mentoring role of the school in resilience.
- We would also highlight how beneficial **sensitivity workshops on issues of gender and family violence** can be for teens. Respect for and protection of women, for and by men, might reduce the risk of marital violence in adulthood and fight against the social reproduction of this family crisis.

In Public Policy

1. In training of future teachers, highlight the importance of child psychology and methods to reduce the risk of distress in children.
2. For teachers already working at schools, develop training in active listening, with the idea of supporting their most vulnerable pupils.

Chapter 4.

The Resilience and Vulnerability of the Family System

The family is the subject of numerous reflections in contemporary literature. A number of studies have been carried out on mistreatment, marital violence and sexual abuse. That said, there are types of suffering that specifically concern families living in slums, because they are subjected to adversity on a daily basis. In this study on teenage drop-out phenomena we would like to deal with this type of suffering, which may not be considered brutal traumatism.

In this context, to what extent can a family constitute a sufficiently safe climate to create an environment that might foster academic resilience? How does the family attenuate suffering to enable the optimal development of the capacities of its members? On the other hand, when might families worsen this suffering?

Attempting to answer these questions pre-supposes reflection on teenagers as a standalone entity, linked to their environment and particularly to their family. This thought process defends the idea of the circularity between causes and effects and a reference to systems theory and models, as a way of coming to grips with the interactions between constituents in the educational environment.

4.1 The Family and its Systemic Approach

Academic resilience, much like general resilience, is not possible without the relationships that people maintain with each other. For Delage, “no capacity for adaptation or thought might be endangered if there aren’t any significant bonds with the environment” (Delage 2008). The issue that is raised by dropping out is thus found at all levels – individual & intra-psychological, family, culture and society.

The family is a “living” entity. It constantly adapts to intra-family events, as marvellous or tragic as they may be: death, birth, marriage etc. It also adapts to events outside the realm of the family that include poverty and immigration. These crises are also essential to ensure the existence of the family, by strengthening (or not) the cohesion between its members. If external factors have different meanings for each family and for each of its members (a family is not a homogenous entity, each member has

their own mental experience), it is the way the family functions that will differentiate between risk factors and protective factors at both this level and the individual level of its members.

4.2 The Family: Protective Factors and Risk Factors

In all families, there are elements that protect and others that enhance fragility. Risk factors and protective factors are mixed in together.

Table 17: General Profiles of Teenagers

	Drop-Outs	School Attendees
Number of People in the Household	4.6	4.8
Type of Family		
Single parent - father deceased/ abandoned	13%	10%
Single parent - mother deceased/ abandoned	6%	2%
Dispersed	17%	2%
Step-family, divorced	6%	6%
Traditional two-parent	58%	79%
Living Conditions in the Dwelling		
Only close family living in dwelling	73%	71%
Extended family (grandparent/cousin, etc.)	13%	23%
Child not living with parents	13%	4%
Household Income Source		
Both parents work	48%	46%
Only the mother works	31%	23%
Only the father works	15%	31%
Outside Support	13%	29%
Married	6%	2%
Sick	48%	46%
Deprivation	40%	6%
Number of Times the Household Has Moved		
One	52%	48%
Two	17%	4%
More than two	6%	0%
Environment		
Clean	0%	2%
Poor	58%	63%
Unsanitary	42%	35%

Our results highlight a very strong majority of teens who are still at school, 79% of them, who live in traditional families (i.e. one father, one mother). This majority is less significant among teens who have dropped out of

school, as 42% of them live in single-parent or step-families, dispersed or divorced families.

We should note that 13% of teenagers who have dropped out of school do not live with their parents, compared with just 4% of school attendees. The life stories that were brought to us can be broken up into two types. Either the parents leave abroad for several years to work and leave their children with relatives, or family problems such as marital violence together with chronic poverty oblige either one of the two parents to abandon ship or the children to leave to seek refuge elsewhere.

As well as this, 31% of teens who have dropped out of school live in a family in which only the mother works, while 31% of school attendees live in a family in which only the father works. A mother who is the sole breadwinner for the family might constitute a risk factor in the academic resilience of her children, while on the other hand if the father is the sole breadwinner, the influence is less significant.

With regards to illness, the two groups are equally vulnerable to epidemics, road accidents etc., which might see them hospitalized for several weeks. That said, teenage drop-outs seem to be more effected by recurrent food deprivation than the others. Two reasons might explain this; firstly, outside financial support is significant for school attendees. Their families will be more likely to help each other (at least materially). The other factor is that certain schools provide one free meal every day, so school attendees might not suffer as much from hunger.

Lastly, we can state that the school attendees move house less often than the others do. 23% of teens who have dropped out have moved house more than twice, compared to just 4% of school attendees. Moving house is thus a risk factor with regards to academic resilience.

4.3 Family Typology

Whatever the period or culture, family appears to be a resource environment in terms of the emotional bonds that are found therein, that bind individuals to one another. Our observations on the type of education received and the quality of parent-child relationships in the slums allow us to distinguish four types of family. This distinction highlights the factors at the level of the family that determine academic resilience.

4.3.1 Types of Education

Our results highlight that whatever the gender, a permissive education system leads to higher drop-out rates than a structured education system. The effect is more ambiguous when it comes to authoritarian styles – there is a positive link with high retention rates of young girls in Bangladesh, while it has a negative effect in all the other cases. In Bangladesh, among girls who attend school, 20% receive an authoritarian-style education, compared with 0% for boys. The same can be said for India, where 21% of girls who attend school receive an authoritarian-style education, compared with 14% for boys. However, when they receive permissive-style education, there is a higher rate of drop-out among girls than there is for boys. In Bangladesh, 100% of girls who have dropped out of school had received a permissive-style education versus 50% of boys. In India, this figure is 50% for girls versus 19% for boys, while in Sri Lanka it is 60% versus 20%.

Table 18: Types of Education Received by Country and Gender

Education Received		Boys				Girls			
		Drop-Outs		School Attendees		Drop-Outs		School Attendees	
Bangladesh	Permissive	4	50%	1	25%	2	100%	1	20%
	Structured	3	38%	3	75%	0	0%	3	60%
	Authoritarian	1	13%	0	0%	0	0%	1	20%
India	Permissive	3	19%	2	14%	8	50%	3	21%
	Structured	4	25%	10	71%	1	6%	8	57%
	Authoritarian	9	56%	2	14%	7	44%	3	21%
Sri Lanka	Permissive	1	20%	1	20%	3	60%	2	40%
	Structured	2	40%	3	60%	0	0%	2	40%
	Authoritarian	2	40%	1	20%	2	40%	1	20%

Concerning the relationships between family members, our study identifies several types of families that we will outline over the following sub-chapters.

Table 19: Types of Relationships within the Family

Family Relationships		Boys				Girls			
		Drop-Outs		School Attendees		Drop-Outs		School Attendees	
Bangladesh	Support	8	100%	5	100%	2	100%	5	100%
	Conflict	0	0%	0	0%	0	0%	0	0%
India	Support	10	63%	11	79%	13	81%	13	93%
	Conflict	6	47%	3	21%	3	19%	1	7%
Sri Lanka	Support	4	80%	4	80%	4	80%	5	100%
	Conflict	1	20%	1	20%	1	20%	0	0%

We should note that positive memories among school attendees are more likely to be linked to their families than those who have dropped out (better relationships) (c.f. Appendix 3).

4.3.2 The Polarised Family: Conflict and Self-Esteem

In this type of family, communication is limited and there is little support between individuals (often founded on violence). Typically, Member 1 of the family experiences conflict with Member 2 of the same family. Both members try even harder to convince the other, which generates a polarised relationship between two or more family members. The polarised family generally includes issues of male-female gender relations (conflict between parents, the domination of one gender over another in a patriarchal society etc.) and culture. This type of family is more common in India than is the case in Sri Lanka or in Bangladesh, with conflicts within the family that affect the boys more than the girls.

In this conflictual context, how can teenagers improve their self-esteem and access their “innate resources”, to use the term coined by psychotherapist Robert Schwartz (Schwartz 2009), so as to construct healthy bonds and a resilient school life? For teens from this type of family, school can be a resilience valve if in school they find a space of safety and confidence that will allow them to develop other emotional and social skills than those that they might find at home. The role of the teacher is as central as the school institution.

Summary: The Polarised Family

Children live in a traumatic family ecology. Those responsible are often the adults around them that should be caring for them. For a child from this type of family, school has a fundamental role to play as a “resilience mentor”.

4.3.3 The Protective Family

This family is characterised by very strong bonds between its members. All the teens surveyed in Bangladesh claimed that they were supported by their family, with no distinction between boys and girls. In India, we found that girls were generally more likely to come from this type of family than boys, whatever their status (school attendees or otherwise). In Sri Lanka, all the girls who attend school come from this type of family, the advantage of which is the protection that their members provide when confronted with any type of adversity. In this vein, Anna Freud noted this difference in the reactions of children during the bombing of the city of London. When mothers had a protective attitude, their children were less likely to present symptoms of excess anxiety (Cyrulnik 2001).

The flipside can, in certain cases, be the kind of overprotection that can isolate a family. A traumatic event, such as a death in the family, might become the cement and organizer of the life of the family. For Boris Cyrulnik (Cyrulnik 2001), excess in terms of the structure of a family or of the organisation of a society can, while making children safe, restrict their development to the orders of their parents, which can limit their creativity.

In the same logic of family protection, but a community level, the participation of children in activities that provide access to social, religious or political engagement, in order to create fairer, more inclusive and non-violent societies, can also constitute a protective factor. It is in this family and community dynamic that children find what Boris Cyrulnik (1999) called “development mentors”, adults that offer quality care.

Along these lines, regarding community support, confidence and faith, we should note that school attendees are more likely to have mentioned a positive memory linked to celebrating religious events with their family,

44% of school attendees compared to 19% of teens who have dropped out of school.

Table 20: Young Person who mentions a positive memory linked to religious events shared with their family.

	Drop-Outs		School Attendees	
	Number	%	Number	%
No	42	81%	27	56%
Yes	10	19%	21	44%
Total	52	100%	48	100%

Summary: The Protective Family

- Current and past experiences of a safe bond with at least one person
- Social support in formal – yet above all informal – group dynamics, neighbourhood life, friends etc.
- Participation in political, philosophical, religious or other belief systems, which help provide meaning to crises and difficulties.

4.3.4 The Damaged Family

Traumatic events in the family depend on how they are handled, from protection of individual members, confidence, care and members' capacities for projection. In cases where one or more parents abdicate their responsibilities, children are forced to adopt certain roles. They must protect their parents and take care of the family, which weighs them down with often crushing responsibilities (taking care of their younger siblings, earning money etc.). We should note that these burdens can accumulate and might come from within the family system or from without. Indeed, such burdens can be transferred by a culture, such as a patriarchal and/or racist system, whereby young people can be victims of rejection or humiliation due to their social condition or standing. We could see this in India, with the caste system and discrimination between young people at school. This type of trauma – often less visible because it is a part of a culture – can be long-term. It seeps into a child's personality and development.

The Example of a Death in the Family. Mourning a family member is a subjective affair – it will affect everyone differently, though all members of the family will share in its suffering, and thus be at risk of becoming a damaged family. Teens who have dropped out of school are more likely to have experienced the death of one of their parents – 19% of those who have dropped out of school have lost their mother or father, compared to 6% of school attendees. The death of a family member, like exile, can weigh children down with emotional burdens that are difficult to deal with, such as taking on the responsibility of the deceased and short- or long-term disruption in the life of the family.

Table 21: Individuals Subjected to Death in the Family (Father/ Mother)

	Drop-Outs		School Attendees	
	Number	%	Number	%
No	42	81%	45	94%
Yes	10	19%	3	6%
Total	52	100%	48	100%

Table 22: Distinction between Loss of Father and Loss of Mother

	Drop-Outs		School Attendees	
	Number	%	Number	%
Individuals subjected to the death of their father				
No	46	88%	46	96%
Yes	6	12%	2	4%
Total	52	100%	48	100%
Individuals subjected to the death of their mother				
No	48	92%	47	98%
Yes	4	8%	1	2%
Total	52	100%	48	100%

When we see the loss of a father or of a mother, we can observe that the effect on drop-out rates seems to be stronger when the father is the one to die. We can thus suppose that in such cases the child becomes a pillar of the family, replacing the household's main income source.

More generally speaking, in a damaged family poverty is a source of exhaustion with regards to the resources of family members. One individual, often the father, works relentlessly to provide for their family. Chronic poverty creates suffering and emotionally over-burdened families, a situation exacerbated by feelings of impotence, which only serves to increase the negativity and weight of the burden. For the authors Burney and Beilke, poverty has a greater impact on other variables, such as the death of a father (Burney & Beilke 2008). This variable should be studied independently from other variables with which it is often associated to gain a greater understanding of the repercussions on academic resilience. The effects of poverty, much like lack of sleep due to over-crowding, small dwellings, empty stomachs or even a lack of access to a library or cultural spaces, place heavy restrictions between and on generations.

Summary: The Damaged Family

Disorganised bonds, disruption of established roles within the family. In this family children are confronted with emotional overload, as they must often take on several roles that are sometimes contradictory and thus confusing – “becoming a man but staying a boy”, “providing for the family but continuing to be a good student” etc. Here the school also has a central role to play – restoring to the student their place as a child/teenager, with no more responsibility than any other student.

4.3.5 The Death of the Family

We might think that the difficult events with which families in the slums are confronted only serve to tighten the bonds between them. At times it can be the exact opposite that occurs. An event might cause a family to shatter. Though family can be a support, it can also be devastated by an

event. Families might explode or implode, it might dissolve following a crisis or perhaps implode. Inflexibility, relationship freeze, a family dies. Despair prevails over it and no forward thinking is possible. What we are describing here is a family where each member must get by alone. For teenagers this splintering is experienced as a necessary act in their growth, whereas younger children develop the task of taking care of the injured parent, who is suffering. This will inevitably create confusion in the role and responsibilities of every family member.

Table 23: Summary of Family Types

Type of Family	Structure and Links with Other Systems	Management of Stress and Trauma-Inducing Events
Polarised Family	Unstable attachment (anxious, ambivalent)	Withdrawal/Conflict
Protective Family	Stable attachment	Protection of the weakest/active listening/confidence
Damaged Family	Disorganised/Ambiguous Attachment	Upheaval of traditional family roles
“Dead” family	Dissolved attachment	Runaway/Conflict

Going one step further ...

It is important to push the analysis of the concept of the family as an unshared environment, which means that children do not grow up in the same family and do not necessarily share a similar environment. Family can be experienced as a specific context and unshared by each child (Montandon 2012).

The concept of accumulated advantage, also called the “Matthew Effect” describes the fact that small differences in state at the beginning of a career or a life tend to lead to more significant differences later on. This means that the inequality caused by this (dis)advantage grows with time (Dipetre 2005). Though it was originally developed by Merton to explain advancement in scientific careers, this can be applied to the school attendance of teens in the slums. For example, the violence found within a polarised family or, on the other hand, the silence and withdrawal seen in damaged families can cause failure at school, poor results and failure on the job market, which in turn increases the vulnerability and exclusion

of an individual and their family. In the same way, leaving a school in the slums – even with a diploma – does not provide the same opportunities to attend a prestigious university as teens who attend a private school, a situation that snowballs to increase a person’s vulnerability.

In Short

- When a traumatic event arises in a family, there are multiple long-term consequences;
- It is essential to take into account the individual characteristics and different relational aspects between family members;
- After a traumatic event, the relations within a family can be measured in terms of attachment;
- Confronted with traumatic events, behavioural and interactional bond systems are enlisted, with the effect of appeasing, amplifying or aggravating the situation.

Recommendations

In Public Policy

1. Strengthen social policies to **enhance the protection of women and children who are victims of domestic violence**. Though the “*Protection of Women from Domestic Violence Act 2005*” may indeed be a foundation that protects Indian families, it is not enough. Women do not report such crimes for various reasons: ignorance of the law in question; the tradition that says that violence behind closed doors is private and thus should remain “hidden”; fear of divorce and financial independence; and, lastly, the frequently corrupt police that underestimates the issue.
2. Create **rehabilitation centres** – for alcohol and other drugs – that are accessible to all. Only one young girl spoke to us of her father who after attending rehab had drastically changed his behaviour towards his family. The young girl in question is still at school.

Chapter 5. Schooling in the Slums

Though it might seem obvious to say that the family is the first social system that allows children to develop their cognitive and social skills, parents often seem to be the cause – either through their impotence or abdication – of the difficulties children face at school and their inability to complete their studies (Périer 2007).

This observation leads us to question in parallel the responsibility of schools. An institutional framework, constructed and anchored in each society, school takes several different forms on a global scale. Yet these forms are often contested in the three countries under study as the education model has arisen in its modern form as a colonial legacy that tends towards uniformisation, via the internationalisation and globalisation phenomena in education (UNESCO 2012). This reality is solidifying through international financing, notably through the World Bank, the appearance of new actors (NGOs, private schools etc.) and a feeling of cultural antagonism and frustration on various different levels. By deduction, the humanistic vision of education – embodied by UNESCO – is confronted with the issue of the gap between those with the means to get by and those that do not (Delors 1998). This gap calls us to question the inequality engendered by individual/family/school partnerships and those it engenders in order to offer a more appropriate model for the slums in question. How can the mechanisms for inclusion be enhanced and the risk of drop-out be reduced through innovation in the field of education?

5.1 The Slums: A Political and Historical Approach

Returning to the exponential growth of cities in the 20th century to understand the importance of academic resilience in the slums, we can see that cities have absorbed almost two-thirds of the world population explosion since 1950 (Hopkins 2002). We are witnessing a multiplication of megacities of more than 8 million inhabitants and hyper-cities of more than 20 million inhabitants. This is a troubling fact as no one can say whether such concentrations of poverty are biologically or ecologically viable (UN Habitat 2002). Since 1970, throughout the south, slums have

been growing at a higher rate than official urban planning. If this trend continues relentlessly, Gautam Chatterjee – an expert in urban planning – says that cities will disappear and we will be left with slums (Chatterjee 2002). The predominance of slums was the main topic of the historic report entitled *The Challenge of Slums*, published in 2003 by UN Habitat, a bleak report on the dangers of a global catastrophe linked to urban poverty. In Sri Lanka, India and Bangladesh, the urban poor can largely be found in the slums within the urban fabric.

Why is the resilience of teens and families in slums such a complex phenomenon? Firstly because this resilience requires political engagement, yet the majority of government budgets go to the middle classes. For example, only 10% of development agencies are dedicated to rebuilding slums (Thomas 2007). What's more, historically all the renovation or subdivision programs organized by the World Bank (which now boasts power over national urban policies) had extremely limited effects, though these included expropriation, displacement of the local population and accelerated gentrification. At the end of the 1980s, the World Bank generalized the privatization of housing provisions and became a powerful advocate for the programs of Hernando Soto, the Peruvian economist who suggested solutions to urban poverty based on the development of micro-enterprises. As they got carried away with the idea of "helping poor people help themselves", little attention was paid to the gigantic budget cuts caused by the World Bank's canonisation of the slums. "By demonstrating the ability, the courage and the capacity for self-help of slum people," writes Jeremy Seabrook, "the way was prepared for a withdrawal of state and local government intervention and support (Seabrook 2007).

The resilience of slum-dwellers depends as much on individual motivation (without which nothing is *done*) as preventative and curative public policy (without which nothing on a larger scale is *possible*). Yet the more government absence is felt, the more the regional and local NGOs take up the slack, particularly with regards to education, and this brings into question of the means and ends of the expansionism of non-governmental institutions that are dependent on international donors.

This resilience also comes via better management of property speculation. "Dakha, the poorest megacity on the planet," explains Ellen Brennan, "underwent intensive urban property speculation. Approximately a third of the money sent by expatriates was put into purchasing land. The price of land rose by 40-60% faster than other

assets and services, and were henceforth disconnected from the income levels” (Brennan 1993). Another example of this phenomenon, this time in Southern Asia, is provided by Colombo, where real estate prices were multiplied by 1000 during the 1970s and 1980s, pushing a large number of poor urban residents, often elderly, towards peri-urban areas (Dayaratne 2003). Though the political dimensions of such work can no longer be denied, the concept of resilience can certainly not be used as an alibi for the withdrawal of our society in the face of social problems, by emphasizing the role of individuals and families. To the contrary, this study faces us up to the challenges of our society, by coming to grips with the adults of tomorrow.

5.2 School: Protective Factors and Risk Factors

5.2.1 The Reassuring Function of School

School can become a safety and happiness valve, being the place where students can have fun and make friends. We can hypothesise that certain children, whose life trajectories might veer towards mistreatment, could find – in their schools and teachers – resilience mentors, which would allow them to develop defence mechanisms, emotional feelings, self-confidence, intellectualisation, hope for social redemption etc. Cognitive skills can develop independently of emotional stability within the family. As such, it is important – and indeed the social responsibility of the school – that attention be paid to signs of suffering among students

Table 24: Family Violence and School Attendance

	Drop-Outs	School Attendees	Total
No Violence	41	43	84
	48.81%	51.19%	100.00 %
	78.85%	89.58%	84.00 %
Violence	11	5	16
	68.75%	31.25%	100.00 %
	21.15%	10.42%	16.00 %
Total	52	48	100
	52.00%	48.00%	100.00 %
	100.00%	100.00%	100.00 %

We can see here that teens that come from violent families are more likely to drop out from school than teens from non-violent families (69% versus 49%).

We should highlight here that the most academically resilient teens, those who despite being profiled as “at risk” still continue to attend school, make up for shortcomings in their family lives by tremendous investment in their school lives. We should also point out that this is the kind of high quality pupil-school relationship that provides the means for academic resilience. This is thanks to the reassuring emotional bonds that pupils maintain with their teachers and the rest of the school staff.

5.2.2 When Attending School Means Suffering

Teens who have dropped out of school are more likely to report violence at school, whether it takes place between pupils or at the hands of the teaching staff. Our interviews reveal that teachers were more often the source of violence (physical blows, humiliation etc.) than other pupils. This type of conflictual relationship is found more often in India and Sri Lanka than in Bangladesh. In Sri Lanka, the four teens that reported violence at school had all dropped out.

Table 25: Violence at the Hands of Teachers or between Pupils

	Drop-Outs	School Attendees	Total
No	41	46	87
	79%	96%	87%
Yes	11	2	13
	21%	4%	13%
Total	52	48	100
	100%	100%	100%

Table 26: Violence at the Hands of Teachers or between Pupils

	Drop-Outs	School Attendees
Bangladesh	0	1
	0%	10%
India	7	1
	22%	4%
Sri Lanka	4	0
	40%	0%

In India, one in four of school drop-outs are affected by violence at school. This violence can also be found at the family level. Indian families are

also more affected by this trauma than those in Bangladesh. We should note that even though this does not justify physical blows and humiliation, teachers can be sensitive to difficult children, leading to rejection or tense relationships. Yet this rejection undermines both the attachment of the child to school and their performance there.

5.3 The Role Parents Play in Academic Resilience

The parents of teens who attend school are more involved in their school life than the parents of teens who have dropped out. Only 6% of them maintain no contact with the school, compared to 60% of teens who have dropped out.

Table 26: Relationship between Parents and School

	Drop-Outs	School Attendees	Total
None	31	3	34
	60%	6%	34%
Sporadic	17	25	42
	33%	53%	42%
Regular	4	19	23
	8%	40%	23%
Total	52	47	99
	100%	100%	100%

Table 27: Opinion of Parents with Regards to School

	Drop-Outs	School Attendees	Total
Very Important	8	29	37
	15%	60%	37%
Important	19	17	36
	37%	35%	36%
Useless	25	2	27
	48%	4%	27%
Total	52	48	100
	100%	100%	100%

The good relationship that parents maintain with the school and their opinions on the usefulness of this institution is very important in ensuring academic resilience. In order to reduce drop-out rates, school needs to raise awareness among pupils and families alike of the importance of staying in school. During our interviews, a mother asked us what the use of a diploma was. This is a legitimate question when it diplomas is seen to fail in providing the direct pathway to employment. Communication channels must be strengthened between all the agents in the education system.

5.4 Innovation in Question

Through its principles of equality, school enables – in theory – to overcome the rigid and determinist framework of the social reproduction of inequalities. Confronted with growing inequality between “those” who have the means to get by and the “others”, the aforementioned “invisible”, to use the term coined by Bernot-Caboche, new education models are needed. Innovation in the world of education is not an order, the quest for it and its appropriation are fragile. Innovation is often complex and the source of criticism for institutional decision-makers – teachers, families, parent-teacher associations etc. What does innovation mean to a teacher, what room to manoeuvre do academic institutions possess, to reduce teen drop-out rates in the slums? What motivates a teacher to maintain a tradition or question the effectiveness of their pedagogical model? It should be noted here that innovation might come directly out of the pre-existing pedagogical model, come from outside, be imposed upon a school as well as stemming from the results of research.

Table 28: Innovative Practices

Les pratiques innovantes
Inspirations La Croix, 2009

	Enseignants	Professionnels (conseillers, éducateurs, etc.)	Responsable d'établissement scolaire
Pratiques innovantes	L'art et la manière d'enseigner une discipline (ensemble des activités) et de faire la classe (relation avec le groupe)	Nouvelles méthodes et approches d'intervention	Mises-en œuvre des politiques et des procédures. L'innovation concerne les changements dans le matériel scolaire (salle de classe, multimédia, etc.) ; mais peuvent aussi porter sur les programmes et les méthodes d'enseignement incluant les relations interpersonnelles

5.5 On Educational Accountability in the Context of Extreme Urban Poverty

Education is considered an issue of exceptional difficulty and a task of the greatest importance. It is a capital issue, on a universal scale to enhance the world of today and build tomorrow's. Academic failure is not a fatality. Experiments carried out by Professor Joseph Torgesen in Florida over a period of 5 years (1990-1995) made it possible to divide the number of pupils at risk by 8, thanks to an overall change in the organization and

curricula of an elementary school (Blanquer 2016). Recent studies have shown that the strongest impact on academic success depends on the skills of the teachers and the practices they implement (Bressoux 1994). A study carried out by the University of Stanford demonstrated that students who attend the classes of the best teachers master 18 months of the curriculum. The conclusion of this study showed that no criterion held as much importance as the skill level of the teachers – the way teachers behave and teach are going to play a fundamental role.

Schools also have a social responsibility to support a child in difficulty or at risk. Schools have the mission to establish a bridge between the law they represent, the rules they teach and the knowledge they make available to their pupils. This mode of operation can be likened to a more institutional form of emotional security initially provided by a mother or her substitute. Palacio-Quintin considers school to be a special place for the implementation of preventative and supportive actions for highly vulnerable children. It reminds us that the accumulation of risk factors and that of protective factors have the same exponential effect. This judgement highlights the positive significance that childhood and education professionals can have (Palacio-Quintin 2000). Lastly, the contribution of academic institutions does not reside solely in offering young people the possibility of developing their knowledge or of expressing their capacity. Above all, it consists in promoting the idea of a certain normality, in that everyone attends – at one time or another – an academic institution.

5.6 A Teaching System which Responds to Regional Needs

If we take the particular case of India, regional differences are enormous between the states in the North and those of the South in terms of the quality of teaching and the average expenditure per pupil. The second issue stems from the Law on the right to elementary education that has only been in place since 2010. Now in force, its purpose is to ensure that every child attends school and to reduce the drop-out rate. That said, to achieve this goal – the universalisation of elementary education – there is a distinct shortage of funds and disparity between different states has formed (UNESCO 2012). The final hurdle in the school system that must be overcome in the regions is the shortcomings of the professional education system, both for young people who still attend school and for those who have dropped out and lack skills or qualifications. This would require reforms of the professional education system, which is only now

starting to provide classes at an 11th Grade level, but should start providing education to lower levels, at the least from the 9th Grade (UNESCO 2012).

With regard to this professional education, when it is widely known that a large majority of teenagers in the slums live in unsanitary conditions and of mediocre quality, education has its role to play. If economic growth is to continue, its dangers have to be averted and any downsides have to be minimised (soil and air pollution, open-air garbage dumps etc.). In order to do this, local municipalities must be able to democratically organize the priorities and disciplines that are needed to improve the quality of life of the locals. That means well-educated, informed and aware human beings. These human beings must put together priorities that get young people involved in the construction of a world that prioritises quality of life and the search for balance between humankind and nature. Indeed, the resilience of slum dwellers comes through ecological efficiency. Cities need to ally themselves with nature to recycle waste into raw materials that can be used in agriculture, market gardening and energy production. Sustainable urban planning presupposes the preservation of wetlands and surrounding agricultural land. Unfortunately, except for a few rare exceptions, 3rd world cities systematically pollute, urbanise and destroy their natural resource pools. In India, 50 000 hectares of agricultural lands disappear each year due to the pressure of urbanisation (Fazal 2000). This would mean, to use Ionescu's proposal, considering resilience according to an integrative approach, enlightened by an ecosystemic logic (Ionescu 2006).

The final aspect to be explored concerns new technologies. While the effects of economic expansion are different depending on the region of the world, the mass media and cybernetic revolution affects everybody, everywhere. Not a single human being can attest to not having access to a television, a mobile phone or even a computer. The Scientific-Technical Revolution is universal, it lays down challenges for knowledge and education in an entirely new way, one that involves an entirely new brand of human with regards to their intellectual possibilities. New technologies and their potential to democratise all knowledge is thus a tool to explore schools in the slums, not to mention children in hospital and those who migrate/move house/move on a regular basis and do not necessarily have access to a school that is adapted to their mobile lives. There must be increased usage of radio, television and computers, to educational ends.

Conclusion

Our report highlights several things. Firstly, academic resilience is far from being an individual attribute. It does depend on personal and biological characteristics, but also on the family, school and community context. Highlighting these elements means integrating the responsibility of all actors involved in academic resilience.

By focusing on the study of so-called “negative” and “positive” memories, our results reveal that all teenagers, whatever their status, at school or otherwise, have more pervasive negative memories (poverty, domestic violence etc.) than those that are exceptional. Teens who attend school are, however, able to balance out these trauma-inducing memories with equally pervasive positive memories (love, support or faith), as opposed to teenagers who have dropped out from school, who rely more on more exceptional positive memories. This chronic deprivation affects their socio-emotional development and attachment and has a direct impact on academic resilience.

This study also enabled us to say that the events themselves are not the most trauma-inducing element (living in the slums, being born into a poor family or having an alcoholic father), but what teenagers do with that situation and how the environment, a family member, the whole family, the community or the school can compensate for this vulnerability. The concept of compensation has been developed throughout this study.

Our study comes with several proposals to enhance academic resilience.

For Municipal Policy:

Academic resilience is linked to the resilience of slum dwellers. It involves better management of urban planning towards sustainable urban planning (Sustainable Development Goals. Agenda 2030 UN). Cities need to ally themselves with nature, and this presupposes as much as it enables the conditions of human dignity: access to water, food and hygiene. For resilient urban planning, we would recommend – first and foremost – fighting against property speculation, then the integration of the slum into its socio-natural ecosystem and the management of water cycles as a cornerstone to the resilience of modern cities and societies throughout Asia.

For Schools:

Our results highlight that the schools that work the best do not use violence or discrimination. These kinds of schools do attempt to create positive reciprocal relationships, in the form of sustainable partnerships with parents and pupils. This relies not only on the personality of teachers, but on the institution's policies with regards to receiving pupils, listening to them and offering them various activities.

Concerning the training of future teachers, we recommend paying particular attention to child psychology and for pre-existing teachers, regular training programs on active listening, to help them to improve their ability to help children/teenagers at risk. In the same vein, we also recommend developing stress assessment tools throughout the pre-teen and teenage periods. A list of useful tools to this end is available in the appendices; the Boxall Profile method caught our particular attention.

The issue of children's biological and psycho-physiological rhythms must also be promoted in the optimal development of their cognitive skills and capacities. We should underline the necessity of creating spaces for rest within the school, a kind of day dormitory. As a way to complement these elements, certain activities should be enhanced; sports, art, meditation and relaxation. These strengthen teenage capacities for resilience and their aptitude to transcend any trauma-inducing events.

Lastly, we recommend sensitisation workshops on the importance of staying in school. These fun-based workshops, which should take the form of games, will be developed as a second part of this study. Our objectives are firstly to sensitise 40 educational structures inside and around the five slums studied here, and then to sign up 1 000 students to these workshops in the first year.

For Families

Poverty is a major risk in the disqualification of families as the search to fulfil basic needs takes precedence over school. Parents are thus prevented from playing their role of resilience mentor in the realm of school. Turning to local municipalities and regions, we would recommend developing work-study training programs, which would enable pupils to combine school and paid work. Due to the high rate of informal employment in these regions, these work-study programs should be flexible and adapted. We would also recommend that life-long training

programs be offered to slum inhabitants to create new opportunities through new skills (UNESCO 2002, Challenges for the 21st Century).

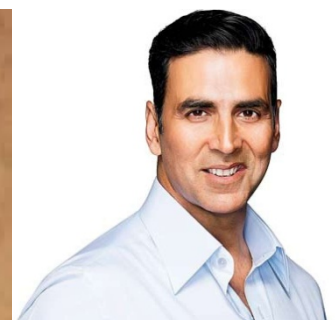
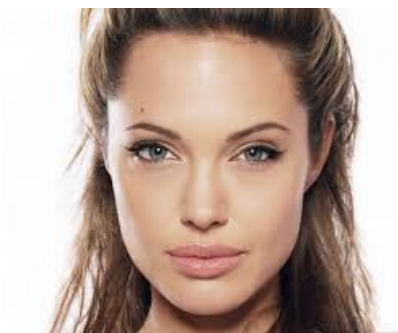
As far as public health is concerned – in treating alcohol abuse and domestic violence in slums (particularly in India) – we would recommend opening free rehabilitation centres, speaking spaces for men, women & children and sensitisation workshops on gender and domestic violence.

For Teenagers

The importance of personality factors, such as good self-esteem and self-confidence help promote appropriate defence strategies and coping mechanisms. In this vein, we would recommend for all slum-dwelling teenagers to work on themselves, to feed their confidence in life and believe in their own dreams. Nothing is impossible.

सब कुछ संभव है
எல்லாம் சாத்தியம்
अवकिछू संभव

These people were born in slums and achieved success



Bibliography

ANUSIC Ivana, YAP, S.C.Y. & LUCAS, R.E.; *Testing Set-Point Theory in a Swiss National Sample: Reaction and Adaptation to Major Life Events*; Michigan State University; 2014.

BARIBEAU, Colette; *Analyse des données des entretiens de groupe*, Université du Québec à Trois-Rivières; 2009.

BERARD Yann; *Quand l'événement structure*; La vie des idées; 2010.

BLANQUER, Jean-Michel; *L'École de demain: Propositions pour une Éducation nationale renouvelée*; Odile Jacob; 2016.

BOISVERT Danny, *Niklas Luhmann : la théorie des systèmes sociaux. Aspect sociologique*. 2006

BORNHAUSEN Stéphan, *La théorie de la théorie chez Niklas Luhmann*. C.N.R.S. Editions | « Hermès, La Revue ». 1998/1 n° 22 | pages 41 à 46

BRENNAN, Ellen; *Urban Land and Housing Issues Facing the Third World*. from *Third World cities: problems, policies, and prospects*; [ed. John D. Kasarda, Allan M. Parnell]. Newbury Park, California, Sage Publications; 1993; p.76.

BRESSOUX Pascal; *Les recherches sur les effets-écoles et les effets-maitres*; Revue française de la pédagogie; 1994; pp. 91-137.

CAVALI Stefano, *Modèle de parcours de vie et individualisation*. National de Gérontologie, 4 vol. 30 / n° 123; 2007; pp. 55-69.

CHATTERJEE, Gautam; *Consensus Versus Confrontation. Habitat Debate June 2002*. Statistics on Delhi taken from SINHA Rakesh. 2003 *New Delhi, The World's Shanty Capital in the Making*.

DAYARATNE, Ranjith; *Empowering communities in the peri-urban areas of Colombo*; p.102.

DE MONTIGNY GAUTHIER Pascale, *Théorie du parcours de vie ?* Cahier de recherche CERIF 2014.

DELAGE, Michel; *La résilience familiale*, Edition Odile Jacob, February 2008. 360 pages.

DIEMER Arnaud, *L'éducation systémique, une réponse aux défis posés par le développement durable*. Université Blaise Pascal, ACTé (Clermont- Ferrand), TRIANGLE (Lyon). 2015

DIPRETE T.A. & EIRICH G.M.; *Cumulative Advantage as a Mechanism for Inequality: A Review of Theoretical and Empirical Developments*; Columbia University Columbia University November 22, 2005.

DONNADIEU Gérard and Co. *L'Approche systémique: de quoi s'agit-il ? Synthèse des travaux du Groupe AFSCET " Diffusion de la pensée systémique". 2008*

DUMONT Annie, *La théorie du parcours de vie et la recherche en violence conjugale*. Fiche synthèse Méthodologie – 2015.

ELZINGA, C.H. & LIEFBROER, A.C.; *De-standardization of Family-Life Trajectories of Young Adults: A Cross-National Comparison Using Sequence Analysis*; Springer Science+Business Media B.V. September 2007.

European Union. Methodology Annex: Life-Trajectory Interview WP5 - May 2010 Dissemination Level and Series: D5.

Ecole Supérieure de l'Education Nationale (ESEN), *Les mineurs dits « incasables » : Une analyse des facteurs de risques de vulnérabilité des adolescents, à travers leurs parcours de vie et les prises en charges institutionnelles*. Conseil Général d'Ille-et-Vilaine et l'Ecole Supérieure de l'Education Nationale (ESEN), avec l'aide de la Protection Judiciaire de la Jeunesse Rapport final de recherche. April 2008.

FAZAL, Shahab; *Urban Expansion and loss of Agricultural Land: a GIS Based Study of Sahranpur City India*; Environment and Urbanization. 2000. p.124.

FILIOD Jean Paul. Anthropologie de l'école. Perspectives. Presses Universitaires de France | « Ethnologie française » 2007/4 Vol. 37 | pages 581 à 595

FISCHER Andréa, *La théorie des systemes comme théorie critique*. Editions juridiques associées. 2010.

GHERGHEL Ana, *La théorie du parcours de vie. Une approche interdisciplinaire dans l'étude des familles*. 2013

IVORA Pierre, *L'originalité des crises systémiques. Economie et politique*, Avril 2013

JONES JOHSON Gloria. *Cumulative Disadvantage Theory and*

Contingent Work: Race and Gender Comparisons. Iowa State University. 2005.

JUIGNET Patrick. *Etat actuel de la théorie des systems. Philosophie, science et société*. 2012

LABORDE Caroline et al; *Trajectoires et événements marquants, comment dire sa vie ? Une analyse des faits et des perceptions biographiques*; 2007.

LAFLAMME Diane, *proposition de Niklas Luhmann inspirée de la phénoménologie husserlienne*. Université du Québec à Montréal, Canada. 2005

LE MOIGNE Jean Louis, *Ouvrir la problématique systémique*. Editorial de l'interlettre chemin faisant. Juillet 2011

LE MOIGNE Jean Louis, *La théorie du système général. Théorie de la modélisation*. Collection les classiques du réseau. Intelligence de la complexité. 2006

LEPICARD Georges. *Théorie des systèmes complexes*. Groupe Emergence. 2010

MALENFANT, Romaine, LEVESQUE Maurice, JETTE Mylène, WHITE Deena, *Etude de trajectoires liées à la pauvreté*; Ripost; 2004.

MONTANDON, Cléopâtre & SAPRU, Saloni; *L'étude de l'éducation dans le cadre familial et l'apport des approches interculturelles* Université de Genève.

MORIN Edgar, *Le défi de la complexité*,

MORSELLI David et al (2016); *Using Life History Calendars to Survey Vulnerability*; In: Oris M., Roberts C., Joye D., Ernst Stähli M. (eds) *Surveying Human Vulnerabilities across the Life Course*. Life Course Research and Social Policies, vol 3. Springer, Cham

Population Information Program. Center for Communication Programs, the Johns Hopkins Bloomberg School of Public Health, Meeting the Urban Challenge, Population reports, Vol 30, N4, Baltimore, 2002.

ROBETTE Nicolas, *Explorer et décrire les parcours de vie : les typologies de trajectoires*. UVSQ-Printemps et INED, 2011.

ROY Bernard, DE KONINCK Maria, *La recherche qualitative sur les inégalités sociales de santé : le parcours de vie*; 2015

SAMPSON Robert. *A Life-Course Theory of Cumulative Disadvantage and the Stability of Delinquency*. 1997

THOMAS, Frederic; *Calcutta Poor: Elegies on a City above Pretense*; M.E. Sharpe; 1997; p. 147.

TURCHANY Guy, *La théorie des systemes et systémiques*. 2012

United Nations Habitat, *Global Urban Indicators Database*; 2002.

WANDER BORGHT Christine, *Stratégie d'intervention avec des jeunes en difficulté : prélude pour une clinique psychosociale*. 2011

WERNER E. and SMITH R.; *Vulnerable But Invincible: A Longitudinal Study of Resilient Children and Youth*; New York. 1982.

Appendix 1. Representation of Negative Disruptive Events

	Drop-Outs		School Attendees	
	Number	%	Number	%
Psychological/Physical-type Response	7	5%	6	5%
Suicide Attempt	1	1%	2	2%
Psychological/Physical Suffering (illness)	7	5%	4	3%
Simple Interactional-type Response (short-term, exceptional)	29	19%	16	14%
Death of Father	6	4%	2	2%
Death of Mother	4	3%	1	1%
Death of Sibling	3	2%	2	2%
Death of Close Family Member (uncle/ grandparent/ very close friend)	7	5%	8	7%
Abandonment by Father	6	4%	2	2%
Abandonment by Mother	3	2%	0	0%
Accident / Illness of a Close Family Member (exceptional)	0	0%	1	1%
Family-based Participative-type Response (more complex and long-term)	79	53%	58	50%
Pervasive Family Violence	12	8%	5	4%
Regular Parental Alcoholism	12	8%	5	4%
Illness / Handicap / Accident of a Parent (long-term)	3	2%	5	4%
New Responsibility / Change of Status Tradition / Marriage / Birth / Death	6	4%	1	1%
Poverty / Distress / Hunger	33	22%	28	24%
Expatriation of a Parent for Several Years	4	3%	2	2%
Impotence when Confronted with an Extreme Situation (violence, distress of a close friend)	9	6%	12	10%
Social System-based Participative-type Response (more long-term effect)	31	21%	22	19%
Move to a New Environment	5	3%	3	3%
Definitive Drop-Out from School	9	6%	0	0%
Sporadic Drop-Out from School	2	1%	0	0%
Failure in an Examination	4	3%	7	6%
Catastrophe within the Slum	4	3%	9	8%
Violence at School	6	4%	0	0%
Violence in the Slum	1	1%	3	3%
No Traumatizing Experience	3	2%	14	12%

TOTAL	149	100%	116	100%
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The above table highlights all the disruptive events mentioned by the teens surveyed. It takes into account teens that did not report traumatising experiences. The blue lines correspond to the four aforementioned types of traumatic experience (c.f. Systemic Approach). Each blue line corresponds to a type of memory. The percentages of the white lines are there to specify the different forms.

Appendix 2. Representation of Positive Disruptive Events

The table below outlines all the information mentioned by the teens surveyed. The blue lines correspond to the aforementioned four main types of traumatic experience (c.f. Systemic Approach). Our analysis is the following. Each blue corresponds to a type of positive memory, and the sum of all these figures adds up to 100%. The percentages of the white lines are there to specify the different forms.

	Drop-Outs		School Attendees	
	Nombre	%	Nombre	%
Psychological/Physical-type Response	9	7%	4	3%
Feeling Linked to a Passion (since the age of)	9	7%	4	3%
Simple Interactional-type Response (short-term, exceptional)	56	41%	50	35%
Memorable Day with the Family	20	15%	22	15%
Memorable Day with Friends	21	16%	4	3%
Memorable Day at School (Prize / Graduation Day)	14	10%	23	16%
Memorable Day in the Slum	1	1%	1	1%
Family-based Participative-type Response (more complex and long-term)	39	29%	52	37%
Make Money and Support their Family	10	7%	0	0%
Participate in Religious Event with Family	10	7%	21	15%
Sharing with Family [past] (the time when ...)	10	7%	9	6%
Sharing with Family [present] (I like this/that)	9	7%	22	15%
Social System-based Participative-type Response (more long-term effect)	31	23%	36	25%
Sharing with Friends [past] (the time when ...)	6	4%	0	0%
Sharing with Friends [present] (I like this/that)	14	10%	12	8%
Sharing and Discussions at School	6	4%	17	12%
Sharing and Discussions in the Slum	5	4%	7	5%
No Positive Memory	21	16%	0	0%
TOTAL	135	100%	142	100%

Appendix 3. Summary Tables of Positive and Negative Memories

Summary Table of Types of Negative Memories

	Drop-Outs	School Attendees
First Negative Memory		
None	6%	29%
Individual	9%	4%
Interactional	37%	25%
Participation family group	29%	31%
Participation social group	19%	10%
Second Negative Memory		
None	6%	29%
Individual	4%	0%
Interactional	10%	10%
Participation family group	58%	42%
Participation social group	23%	19%
Third Negative Memory		
None	6%	29%
Individual	2%	2%
Interactional	10%	4%
Participation family group	65%	48%
Participation social group	17%	17%

Summary Table of Types of Positive Memories

	Drop-Outs	School Attendees
First Positive Memory		
None	13%	0%
Individual	8%	0%
Interactional	33%	27%
Participation family group	29%	58%
Participation social group	17%	15%
Second Positive Memory		
None	13%	0%
Individual	4%	0%
Interactional	38%	23%
Participation family group	21%	33%
Participation social group	23%	44%
Third Positive Memory		
None	13%	0%
Individual	6%	8%
Interactional	37%	54%
Participation family group	25%	21%
Participation social group	19%	17%
Family Relationships		
Low-Intensity Supportive Relationship	37%	25%
High-Intensity Supportive Relationship	42%	65%
Low-Intensity Conflictual Relationship	13%	10%
High-Intensity Conflictual Relationship	8%	0%

Appendix 4. List of the main socio-emotional assessment tools designed for young people

- Big Five
- SWEMWBS (Short Warwick Edinburgh Mental Well-being Scale)
- Strengths and Difficulties Questionnaire
- Proactive Reactive Questionnaire
- Aggression Questionnaire
- The Big Five
- General Health Questionnaire
- Big Lottery Well-being Tools
- Outcome Stars
- Boxall Profile
- BERS 2
- Achenbach System of Empirically Based Assessment (ASEBA)
- Beck Youth Inventories, Second Edition for Children and Adolescents (BYI-II)
- Behaviour Assessment System for Children, 2nd Edition (BASC 2)
- Child and Adolescent Needs and Strengths (CANS)
- Dial Assessment
- Ev-ASY©
- General Self-Efficacy Scale (GSE)
- Grit Survey
- MTQ48 - the mental toughness measure
- NPC Wellbeing Measure
- The Children's Society Wellbeing Tool
- Resiliency Scales for Children and Adolescents
- Rosenberg Self Esteem Scale
- Self Image Profiles (SIP)
- SelfSmart (www.selfsmart.org)
- The Resilience Scale
- The Rickter Scale Process
- The SOUL Record™
- The Wakefield Risk and Resilience Framework
- The Youth Advice Outcomes Toolkit
- VIA Strength Survey for children
- YP-CORE
- Me and My Feelings
- UK Govt. Social Emotional Aspects of Learning Tools
- The Child and Youth Resilience Measure (CYRM)
- Developmental Assets Profile (DAP)

- Post traumatic growth inventory
- ACE Test (Adverse Childhood Experiences)