# An Analysis of Parents' Strategies of Child Labour and Education in Developing Countries

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ABSTRACT - This paper sheds light on the trade-off between child labour and education in developing countries. We show there are different strategies of education that parents can adopt to enhance children's wellbeing. We distinguish four categories of education: formal education, vocational training, non-formal education and informal education, implying that child labour and education analysis is no more binary. Hence, these educations are suitable for different categories of households (the richer of the poor and the poorer of the rich). These households make their decision about education and child labour according to the adult labour market and their income. In an environment characterised by a high level of youth unemployement these households prefer investing in informal education.

We specify explicitly that we make a commitment to do not proceed to any kind of tests. Our critical point of view is to assert that education, as such, could not be summed up to a simple binary arbitration. On the contrary, we defend a conceptual approach.

#### Introduction

Since the creation of the IPEC (International Programme for Eliminating Child Labour), the focus of the ILO (1997) has been to eradicate child labour entirely but, progressively, this institution has recognised that the task would be hard to achieve (Schlemmer 1997). Hence, priority has been given to eradicate the worst forms of child labour with special attention paid to education to achieve this goal. The ILO (1997) and other institutions, like UNICEF and UNESCO, consider that school is a perfect substitute for child labour. The idea behind this is that a child enrolled at school is one child less in the labour market; so parents should be encouraged to provide children with an education. This hypothesis does not take into account the fact that in some countries child labour and education can be mutually reinforced as children combine schooling and work to support their education (Grootaert and Kanbur 1995; Akabhayashi and Pscharopoulos 1999; Pscharopoulos and Patrinos 1997; Ray 2004). As education and child labour are seen as perfect substitutes, analytical frameworks on this issue tend to focus on the reasons why parents do not invest in their children's education (Baland and Robinson 2000; Ranjan 2001), while emprirical studies point to the reasons for drop-out from schooling (Jensen and Nielsen 1997). Hence, education is not playing its role in keeping children out from the labour market. In the ILO's analysis (1997), the different educational strategies of households are not taken into consideration.



Indeed, all the households do not have the same strategy towards child labour and education. In this paper we present these different strategies and show in which context they are adopted in order to have a better understanding of the phenomenon and to facilitate decision makers to take actions against child labour and to implement proper policies regarding to different categories of households' expectations.

In the second section of this paper, we explore the binary trade-off between child labour and education by making the education a heterogenous variable. Thus we present different forms of education possibilities available to parents for ensuring their children's wellbeing. The third section describes the choices of households. The fourth section analyses the reason why parents choose informal education to ensure their children's well-being, and finally we conclude with some policy recommendations.

## Taking seriously diversity in forms of education

## Child labour analysis: a binary approach

According to Baland and Robinson (2000), in an economy where poverty exists alongside the imperfections of the credit market, the level of child labour is socially inefficient. This hypothesis is also supported by Ranjan (1999, 2001) who argues that poor parents would like to invest in their children's education but cannot afford to because they are excluded from the formal credit institutions. Rammohan (2001) states that parents rely on child labour for security in their old age. Baland and Robinson argue that children and parents cannot come to a commitment engaging the former to reimburse the latter for the effort needed to educate them. Altruistic parents care for their children's wellbeing. Thus, we argue that they want to endow their children with human capital but the notion of education is not the same as it is understood in the economic literature. The models of Baland and Robinson and of Ranjan consist of describing a binary trade-off between child labour and education; we state that the problem of child labour and education is far from being binary. There exists different forms of educations (formal education, vocational training, non-formal education and informal education) and parents have all these alternatives of education to ensure their children's future wellbeing.

Our analysis is based on the strategies parents adopt to ensure the household's survival depending on the decision of child labour and education. Dessy and Pallage (2001) state that there is a co-ordination failure between a household's decision to school and the decision of enterprises to invest in high technology. Parents fail to invest in education because they are not sure that enterprises will invest in high technology, contrarily enterprises do not invest in high technology because they are not sure of parents' investment in children's education. We argue that this lack of co-ordination cannot be solved if parents don't feel that they are gaining by investing in their children's education. In an environment where the informal sector is expanding, poor parents consider that this sector is suitable to enhance their children's future wellbeing, particularly when the formal sector is unable to absorb all the young educated people. According to Mukherjee and Sinha (2005) and Ballet and Bhukuth (2006), parents give a minimum level of education (primary education) to their children and put them into the informal sector to acquire informal skills. According to Gormly and Swinnerton (2003), returns to education in the adult labour market affect children's school

enrolment. Hence, child labour and schooling decisions are closely related to the adult labour market. Basu (2000) states that the minimum wages in the labour market push parents into sending children onto the labour market. Thus, in an environment where the formal labour market is fully integrated, parents whatever their financial situation would invest in children's education because the returns of education are high.

Baland and Robinson (2000) demonstrate that incertainty on the expected benefits of investment in children's education leads to a non optimality situation because the choice of work is not required for assuring children's well-being. Therefore, the analysis of Baland and Robinson is based on a binary trade-off between education and child labour. The binary approach is not suffisient to understand the households choices of education and child labour. Therefore, we go farther this analysis to show the existence of different forms of education and why parents do not invest in the formal education.

#### Distinguishing several forms of education

"Education" is a generic term covering different forms of learning. Hence, households have several possibilities to ensure their children's well-being. We distinguish between four types of educations: formal education, formal vocational education, non-formal education and informal education.

Formal education: Schooling given by public or private schools that follow the curriculae defined by the ministry of education. The knowledge shared is general and theoretical.

Vocational training or formal apprenticeship: The prolongment of the formal education, oriented towards professional formation and technics. It is thus complimentary to formal education. The programme is both practical and theoretical; it is often considered to be more theoretical by entrepreneurs in the informal sector (Charmes 1985a,b). The skill is destinated to the modern enterprises of the formal sector (Liimatainen 2002). The courses are inflexible and standardised (Liimatainen 2002).

Non-formal education: Non-formal education<sup>1</sup> works outside the formal education circuit. Non-formal education is dispensed by non-governmental agencies, as well as government agencies and private institutions. Non-formal education replaces formal education in rural areas where schooling is not available to a high number of people.

Indeed, non-formal education is for people in the informal sector and increases their capacity to work in the formal sector. This system of apprenticeship is not for children who are likely to enter the labour market, but for adults or confirmed apprentices of the informal sector. So it is very rare to find children who have finished their primary education or dropped out, or even children from vulnerable households, in this form of education. The NGOs focus on teaching civic education, the apprenticeship of reading and writing. This type of programme is more oriented towards technical formation. The aim of non-formal education is to improve the skill of those in the informal sector so as to improve their wages and, so, their standard of living.

Informal education or traditional apprenticeship: Informal education is technical and professional education dispensed in the informal sector by a master to young apprentices.

<sup>&</sup>lt;sup>1</sup> This kind of knowledge acquiring system has been developed by UNESCO in 1991 at the conference of Jontien in Thaïland for promoting education in developing countries facing a crisis of their formal educational system.



The informal sector is characterised by a lack of structures in terms of the organisation of apprenticeships (Liimatainen 2002). The informal apprenticeship system distinguishes from the other forms of formations by its operationality. Indeed, the informal apprenticeship forms the skill that the informal sector needs.

## The development of the informal sector: a factor of child labour

The informal sector gives young apprentices the opportunity to become entrepreneurs who enjoy a high social position in society. So the idea that the informal sector does not permit the accumulation of capital is rejected by Charmes (1992) who states that owning a business can provide a high income. This evidence is also supported by a study carried out in several sub-Saharan countries (Gasarian and Maldonado 2001; Gaufryau and Maldonado 2001). Some informal activities are more lucrative than others, such as repairing TVs, radios, cars and jewels. This sector welcomes not only the poor but also young, educated people. The wage in the informal sector depends on several factors: the qualification of the employees, the statuts (permanent workers, occasional workers, helpers and apprentices) and the activity. In sub-Saharan Africa, more than 70% of the active population works on the informal sector<sup>2</sup>. The dynamisn of the informal sector is related to the formal sector; both sectors are connected; the former plays the role of subcontracting for the latter.

The parental choice about education or work affects a child's future life. The choice to educate or send to work is a decision influenced by the socio-economic environment. Poor households live in an environment where the informal sector is dynamic, absorbing the surplus of labour, whereas the formal sector appears to be in crisis3. The informal sector is no longer characterised by a lack of capital accumulation and, indeed, enables individuals to become rich (Charmes 1992). Hence, apprentices have an opportunity to become entrepreneurs, giving them social mobility. So parents choose the informal sector because they estimate that working in the informal sector gives their children a skill that might be informal, but is necessary for working in the sector.

## Enlarging the household choices of education

All the theoretical models (Baland and Robison, 2000; Ranjan 2001; Dessy and Pallage 2001) on child labour that deal with the trade-off between work and education fail to consider the different forms of education available to households and the financial resources that dictate educational choices. Households living in extreme poverty clearly lack the financial resources and choose the option of child labour. So, whatever the economic situation, if living standards are not improved, they do not invest in their children's education. Indeed, these households cannot live without child labour. We support the idea of Basu and Van (1998) who stipulate that a household puts its child into the labour market if and only if - the adult members of the household cannot support the household. Hence, income poverty is central in our analysis of trade-off against child labour and education. The

 $<sup>^2</sup>$  According to Maldonado (1998), in Benin 95.5% of the active population are wage employees in the informal sector

<sup>&</sup>lt;sup>3</sup> This is particularly true in Subsaharan Africa.

luxuary axiome is supported by some empirical studies led by Edmonds (2004) in Vietnam and Admassie (2002) in sub-Saharan Africa.

#### Differentiating categories of households

We assume that rich households invest in formal education, knowing how important education is for assuring the household's and its children's continued wellbeing whereas the poorest of the poor take the decision of child labour because they cannot give up the opportunity cost of education. The most interesting cases lie within the circle of the graph below. Households living near the poverty line are vulnerable households that can fall into extreme poverty (for the richest of the poor) and into poverty (for the poorest of the rich). The economic context and income fluctuations influence the choice of the household's head (Grootaert 1998). According to its economic situation, a household considered to be "the poorest of the rich" will make a different choice to a household living in "the richer of the poor" category. Indeed, the populations considered the "richest of the poor" and the "poorest of the rich" have an interest in improving their economic situation and to do so by investing in their children's formal education. Hence, these categories of household ("the poorest of rich" and the "richest of the poor") are sensitive to income fluctuations and to the overall economic situation.

The graph below shows the possibilities of investment in children's education for different types of households according to their levels of income. Households inside the circle have four possibilities of investment. These households can invest either in formal education, vocational training, non-formal education and informal education.

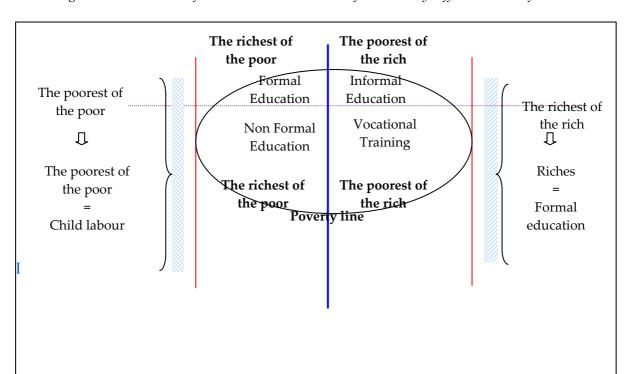


Figure 1. Possibilities of investment in education of children by different levels of income

In this figure, we do not have a binary choice - households have four choices about educating children. We assume that formal education and formal vocational training can be assimilated as formal education, since they compliment each other using similars types of teaching and both give access to the formal labour market. Also, non-formal education and traditional apprenticeship can be categorised as informal education, even if they appear to be distinct. By regrouping the different categories of education into two main categories, we make these household's educational choice binary.

Hence, the household of the categories « the richest of the poor and the poorest of the rich » has to choose between child labour, formal education and informal education to ensure the wellbeing of children. We are going to discuss informal education that is seen as an alternative to child labour and to formal education.

#### Revising the trade-off between education and labour

We assume that education is thought of as an asset by the households once the investment is realised. Parents are investors and they want their investment to be fruitful at the end of the investing period. Education is a long-term investment which makes it risky. The risk is the probability that you can still be unemployed. Investment in education is a kind of asset that the investors themselves do not possess, but that benefits another person (Alderman and King, 1998). The transfer of gains depends on the person benefitting from his investment.

There are two kinds of educational cost: direct and indirect. The former is the cost of admission, buying uniforms, school materials (books, pens, etc) and travel costs. In some countries, educational fees are an obstacle for households too poor to educate their children. To overcome this, Unesco has implemented the programme, Education For All (EFA), to provide compulsory education to every child in low developing countries. According to Jensen and Nielsen (1997), travel costs are also a factor affecting school enrolment. Lack of transport means that children have to walk long distances to reach school, so that they are often late and too exhausted to follow classes. The children also suffer a high risk of being attacked on the way to school.

The indirect cost is the opportunity cost of education. The poorest households cannot give up the financial resources that child labour contributes to the household's survival.

In the analysis of cost and benefit, the household compares the cost of its investment to its benefits. The cost of investment in education is short term (annual or monthly) until the end of schooling, whereas its benefits are long term. For a better understanding of the trade-off between education and child labour, we make three assumptions:

1) We assume that households actualise their expenses realised annually at the term of the educational level (primary, secondary and tertiary education in relation with the strategies adopted):  $C_A = \sum_{i=1}^n \frac{C_{P,n}}{(1+r)^n} + \sum_{i=1}^m \frac{C_{S,m}}{(1+r)^m} + \sum_{i=1}^o \frac{C_{T,o}}{(1+r)^o}$ . Therefore, we state that the actualised cost<sup>4</sup> of primary education is cheaper than secondary education:

 $<sup>^4</sup>$  r is the rate of interest and the n=m=o=6 are the period of schooling. The whole period of schooling is then n+m+o=18 years which is relatively a long term for poor households.

$$\sum_{i=1}^{n} \frac{C_{P,n}}{\left(1+r\right)^{n}} < \sum_{l=1}^{m} \frac{C_{S,m}}{\left(1+r\right)^{m}}, \text{ and the actualised cost of the secondary education is less than}$$

tertiary education: 
$$\sum_{i=1}^{m} \frac{C_{S,m}}{(1+r)^m} < \sum_{i=1}^{o} \frac{C_{T,o}}{(1+r)^o}$$
. Hence, poor households can afford to invest in

primary education, but cannot afford to go beyond this level as cost increases with higher levels of education.

2) The long-term benefits of education are effective when the child becomes an adult salaried worker in the formal sector. The household needs to anticipate these future benefits, but this is difficult to do so in an uncertain environment without access to information. Indeed, the household is not at all certain that the child will find stable employment to repay the parents. In such an environment, the household compares the actualised expenses to the income prevailing in the formal labour market.

Hence, in the short term, the actualised expenses<sup>5</sup> (CA) is compared to the wage the child could earn in the informal market, i.e. the opportunity cost of education Wc and in the long term they will be compared to the profitability of the investment in education. The actualised expenses (CA) include the direct costs of education.

## Distinguishing between the short and long term

### The short-term trade-off

When  $C_A = W_C$ , the parent is indifferent to the choice between education and child labour, and will enroll the child in education out of concern about the child's wellbeing.

In the case where  $C_A < W_C$  and  $C_A > W_C$ , the choice about whether or not to educate is difficult. When  $C_A < W_C$ , a household living in extreme poverty has the child work as it needs the child's wage to survive. Since the household's decision is made according to its economic status and the child's wellbeing, the household compares CA with the future wage of the child. However, the child's opportunity of future gain depends on the economy and the likelihood of finding a job in the modern sector. This hypothesis is shared by Alderman and King (1998), and Quisumbing and Otsuka (2001), showing that girls in developing countries have a lower rate of enrolment as the opportunity to find a well-paid job in the formal sector is small. We assume that what is true for girls can be extended to all children regardless of gender.

#### The long-term trade-off

The parents need to anticipate the future wage of the children by putting a value on their investment which corresponds to the current adult wage WAF applied in the formal labour market. This means that parents compare an adult wage to the actualised expenses of education. So we have three possibilities:

<sup>&</sup>lt;sup>5</sup> The household compares  $\sum_{i=1}^{n} \frac{C_{P,n}}{(1+r)^n}$  the cost of the primary education to the child labour wage,  $W_c$ 



- (i)  $C_A = W_{AF}$  where the household is indifferent to choosing between education and child labour. The preference is given to education if parents are altruists and are not living in extreme poverty.
- (ii)  $C_A > W_{AF}$  where educational expenses are higher than the wage of adults in the formal labour market, so poor households don't consider it worthwhile to invest in children's education. In this case, accessing the credit market would allow parents to finance their investment (Ranjan 2001).
- (iii)  $C_A < W_{AF}$  where education is a profitable asset, so parents do invest in their children's education.

However, when adult salaries in the labour market are high – higher than the anticipated expenses – poor parents will not invest in education if there is a high rate of unemployment among young educated people. The economic context is crucial for the parents' decision about child labour and education ("hypothesis of coordination failure", Dessy and Pallage (2001)). In the context of growth with creation of employment, parents invest in education. In low developing economies there is a high rate of unemployment among young educated people and a crisis of the formal sector; so parents lose confidence in school institutions that they don't think are adapting to the demands of the labour market.

# Factors explaining parental choice of informal education

When households have several possibilities of investment, why don't they choose the formal education?

#### The crisis of formal education

The education system in developing countries, particularly in sub-Saharan Africa, is in profond crisis with a high drop-out rate from schools. At the beginning of the 1980s, all the developing countries were submitted to the Structural Adjustment Programme which consisted of improving the economic performances of economies facing a crisis of their balance of payment. Institutions, such as the World Bank and the International Monetary Fund, gave financial help in exchange for demands to reduce the public deficit; open public market to private investors; liberalise the capital and labour markets, all of which had some drastic consequences for these economies. The restructuring of public enterprises has meant redundancy for inefficient workers. Their unemployment has an immediate effect: a decrease in family income. Indeed, these people were unable to find a job in the formal sector and had to work in the informal sector where wages are lower. The loss of income is compensated by sending other household members – children and women – out to work (Grootaert 1998). The consequence of which was an increase in children dropping out of school.

The school drop-out rate has not been immediate; it accelerated with the reduction of the public deficit, accompanied with smaller amounts of state budgets going into primary education (Cornia et *al.* 1987). This has been disastrous for educational systems. Teachers have not been paid and infrastructures broke down. Parents have financed the maintenance

of schools<sup>6</sup>. According to Canagarajah and Colombes (1996), teachers in Ghana have asked their students' families for domestic or farm work to compensate for their unpaid salaries. Parents have also let their children drop out of school to go and work in the labour market to improve the household income. In Keyna classes are overcrowded, with some 50 pupils in each classes, making it difficult for teachers and with pupils often having to repeat classes.

In the macro-economical context of developing countries characterised by unemployment of young, skilled people within a formal sector in crisis, the long-term benefits of education appear to be nil. Parents feel they are investing in a non-profitable asset. To encourage investment in education, the economic environment must be favorable. School is not seen as a vehicle that enables social mobility. Parents (mostly the poor) judge the institution as ill adapted to the wider socio-economic context (Gérard 1992) that fails to create employment for young, skilled people.

The failure of the education system is also explained by a fast increase in Africa's population. In turn, the education system is unable to meet the demands of the extra number of enrolled children. This problem can also be related to what we have described above.

# The hypothesis of substitution between formal and informal education

Education in the informal sector is a different way of acquiring skills than education in the formal system. Charmes and Oudin (1994) and Oudin (1990) have stated that formal education and traditional apprenticeships are complementary within the formal sector. Vocational training is a prolongment of formal education as the teaching is theoretical and practical. These two forms of education give access to jobs in the formal sector. Formal and informal education gives access to two different labour markets, even if individuals employed in the formal sector can work in the informal sector. A person with formal skills can work in both sectors; the contrary is less likely. The formal and informal labour markets are thus dichotomous.

#### The choice of education for children

Altruistic parents will always invest in education for enhancing the wellbeing of their children. According to the economic theory of child labour, children's wellbeing cannot be ensured outside of formal education because it gives access to formal employment distinct to the informal employment (Ranjan 2001). Wages in the formal sector should be higher than those in the informal sector. Parents invest in education according to their financial resources and of the overall economic situation.

Households living in extreme poverty have little choice but to put their children into the labour market as non-qualified, occasional workers or helpers. The choice of these households is restricted by the need to survive. Children change several jobs without learning any specific skills, ending up with incomplete skills across different activities. They

<sup>&</sup>lt;sup>6</sup> According to Cornia et *al.* (1987) in Africa, schools being in worst states parents have made enough efforts for maintaining them in state, they were paying teachers in nature (hen, vegetables and so on) for encouraging them keeping on teaching their children.

<sup>&</sup>lt;sup>7</sup> Examples of pluriactivities illustrate the interactivity between these two different sectors.

<sup>&</sup>lt;sup>8</sup> Taillors from the informal sector can work in the formal enterprises of textiles as it was the case in Mauritius Island.



learn to manage in the informal sector. Their limited social network means that they do not have access to the most demanded informal education (Ballet and Bhukuth 2006) for which they need to be recommended by someone known to the master (Charmes 1985a,b). The indigent households aren't properly trusted by apprenticeship masters, which only reinforces their marginalisation.

In the figure above, there is a move from the left to the right in the parents' choice of education. The preference for work is high among the indigent households and the tendency changes by moving towards the right. In other words, the better the potential for the household income, the more parents prefer to invest in formal education. Therefore, poor households prefer investing in informal education rather than in formal education. Rich households know the importance of education; they prefer putting their children into formal education which permits them to be different from the poor population. As Bourdieu (1986) points out in another context, those of developed countries, educational strategies are also a significant means to maintaining differences between social classes.

## Conclusion and policy recommendation

We have studied the difficulties faced by households when weighing up the benefits of child labour versus education. This trade-off is more difficult for households facing financial constraints. Poor households cannot give up the opportunity cost of education. To ensure their children's wellbeing, therefore, they provide their children with an informal education that is different to formal education. Hence, the trade-off is no more binary because there are different types of education for different categories of households. Parents base their decision about formal schooling on the formal adult labour market. If such a market is characterised by unemployment of young, educated people while the informal sector is expanding, parents prefer to give their children an informal education. Analysing the tradeoff between child labour and education in terms of costs and benefits, gives a new insight to the issue of child labour. Formal education must appear to enable social mobility in order to encourage parents to invest in formal education. In developing countries, parents are not convinced that schools play a role in forming the type of skilled labour market that society wants (in the formal sector, Bhukuth and Bennani, 2006). So, in such an environment, (poorer) parents tend to choose informal education that prepares their children for the informal sector and contributes to its development.

According to the sociologist Schlemmer (1999), school is not "the norm" in most developing countries of sub-Saharan Africa; it is their colonial heritage. People are not aware of the importance of educating children. In most developing countries, primary level school requires less financial resources than other levels of education, and more resources should be allocated to it. More modern schools must be built both in urban and rural areas and more effort must be made to improve the training of teachers. States also need to encourage private initiatives in order to reduce unemployment among young educated person to inspire confidence in the long-term benefits of education.

<sup>&</sup>lt;sup>9</sup> Parent's income is high enough to offer children's an education.

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