

# A NEW PERSPECTIVE ON HUMAN CAPITAL THEORY: ANALYSIS OF SHORT-TERM BENEFITS THROUGH THE CONTRIBUTION OF CHILDREN TO THE APPROPRIATION OF ICTS BY THEIR PARENTS IN PORTO-NOVO, BENIN

Alphonse Gaglozoun<sup>1</sup>, Emile-Jules Abalot<sup>2</sup>, Pascal Dakpo<sup>3</sup>, Adolphe AHONNON<sup>4</sup>

<sup>1</sup> Doctor in Science of the Education, Auxiliary Master of CAMES, University of Abomey-Calavi (Benin), National Institute of Youth, Physical Education and Sport, Laboratory of the Social and Human Sciences,

<sup>2</sup> Doctor in Sociology, University of Abomey-Calavi (Benin), Master of CAMES, National Institute of Youth, Physical Education and Sport, Laboratory of the Social and Human Sciences, Laboratory of the Social and Human Sciences.

<sup>3</sup> Doctor in Sociology, Master of CAMES, University of Abomey-Calavi (Benin), National Institute of Youth, Physical Education and Sport, Laboratory of the Social and Human Sciences, Laboratory of the Social and Human Sciences.

<sup>4</sup> Doctor in Science of the Education, University of Abomey-Calavi (Benin), National Institute of Youth, Physical Education and Sport, Laboratory of the Social and Human Sciences, Laboratory of the Social and Human Sciences.

**Email** - adolphe.ahonnon@gmail.com

**Abstract:** *This study aims at highlighting the contribution of children to the appropriation and / or use of ICT by their parents, through the prism of analysis of the short-term benefits of investments in human capital as postulated in the studies of Gaglozoun (2008, 2012). In this context, we formulated the following hypothesis: "The parents of the area of Porto-Novo, civil servant, have recourse to the help of their children who are still on the benches for the use of ICTs".*

*After collecting data from a sample of 130 individuals (110 pupils and 20 parents) by means of a questionnaire and an interview grid addressed to parents (20), the conclusions of our analyzes allow us to suggest that school children support their parents, in the appropriation or use of ICTs. Indeed, it is noted at the end of the study that the parents use their children to input text, slide presentations, use of internet, programs and reception of calls on their cell phones etc. These results, therefore, allow us to postulate that these parents derive substantial benefits from their children's support for their production as civil servant, which would help to improve their household income.*

*These conclusions validate our hypothesis to some extent and corroborate the findings of the Gaglozoun studies (op.cit) that human capital investments can produce short-term benefits and that it is useful to take into account children as an important variable in the assessment grid of sources of human capital acquisition.*

**Key Words:** *Human capital, profits, short term, parents.*

## 1. INTRODUCTION:

Investing in human capital accumulation would allow productivity gains that are conducive to growth and employment. It is the theory of human capital that has been devoted to this type of investment. The theory of human capital has appeared since Smith (1776). Smith (1776) at that time recognized the importance of human skills as a determining factor in national wealth more than 200 years ago. His studies have suggested that education at school makes people more docile, which induces the quietness of countries and provides a space free from unfavorable disturbances to trade.

After him, Marshall (1890) referred to the preponderance of training and education in the economics of nations at the end of the 19th century.

However, the origins of modern human capital theory date back to the 1960s when Schultz (1961, 1963) and then Becker (1964) proposed their theoretical and empirical analyzes of the relationship between human capital investment and remuneration. This theory assumes that individuals can improve their productivity through voluntary acts of investment in education or training.

When one is interested in the content of this capital, one may notice that several conceptions have been recorded in time. In 1996, for example, the Organization for Development, Trade and the Economy (OECD) defined this concept as the knowledge that people acquire during their lifetime and use it to produce goods, services, or ideas, in the context of work. In 1998, the same institution clarified again this definition by stating that human capital was the body of knowledge, skills, competences and other qualities possessed by an individual and relevant to economic activity.

In the logic of the conceptualization of theory, we could say that it referred, according to Weiqiu (2001), to the capacities, both innate, derivative or accumulated, embodied by working-age populations and which enable them to work productively with other forms of capital to ensure economic production. As it can be seen, the definition of this author refers to aggregated human capital or to the macro level, since it refers to populations. Gaglozoun (2008) was thus able to reduce this definition to the individual dimension, or micro level, in order to find a definition that refers to the dimension related to our study, and to note that human capital in this case broadly defined by capacities, both innate, derived and accumulated, embodied by an individual, and which enables him to work productively with other forms of capital in order to ensure his economic production, his field of activity or others.

In the existing literature on human capital theory, notions of benefits have been widely discussed by authors. Almost all these authors agreed with Marshall (1890) and Lemelin (1998) to observe that human capital investments are long-term and do not depend solely on monetary variables since the role played by the family in educational choices would be decisive. Gaglozoun's (op.cit) curiosity has been to highlight the short-term benefits of investment in education from the conclusion that investment benefits are long-term. This author succeeded in highlighting the existence of this kind of benefit (short-term benefits of human capital) through his thesis that children bring information to parents that could improve their cotton production at the same time children are still on the school benches.

The present study is a continuation of this alternative theoretical posture which broadens the field of study of human capital. We ask ourselves whether these conclusions are equally valid in the field of Information and Communication Technologies (ICT). In this regard, it is for us to highlight the contribution of children to their parents in the use and / or appropriation of various techniques in the field of ICTs, which could improve their production. Indeed, the eruption of ICTs in Africa (Dakouré, 2014) and in Benin singularly is a patent reality and leaves no one indifferent. They have assaulted our social structures and impose themselves as indispensable tools in all the socio-economic spaces of Benin, which, year after year, has been registered right away in what is today called the knowledge economy understood as that which refers to the preponderant use of knowledge, and intangible knowledge for the growth of nations. Indeed, nowadays and in Benin for example, the mobile phone is in " all rooms " or almost. Even in the villages, access to this communication tool is seen as a gradation that brings the possessor into a higher social category than the one to which he belonged previously. In public or private services, the use of ICT-related tools has become mandatory and those who do not use them are outdated and fall into "disuse" in terms of their knowledge, skills and knowledge. In the same vein, several projects are being put in place to encourage the introduction of these tools in the public or private administration of Benin, in schools and universities and even in markets.

There are, however, informal channels where this knowledge is acquired. In this perspective, we asked ourselves whether children were not one of these informal channels by contributing to the appropriation of these tools or their use by their parents. Civil servant, in logic which led Gaglozoun (op.cit) to consider them as sources of knowledge of parents when he postulated that they acquired short-term benefits on investments in their children's education.

For the purposes of our study, we limited the investigation space to the city of Porto-Novo, the capital of Benin. Its population is estimated in July 2015 to 234 168 inhabitants while the one of Benin is 10 448 647. The students surveyed were selected at Lycée Béhanzin, one of the prestigious and oldest high school of the country.

In the perspective of data collection and analysis, the assumption we made for the study is as follows: "The parents, civil servant of Porto-Novo, are being helped by their children who are still students in the use or appropriation of ICT-related technologies."

To verify this hypothesis, we used the materials and methods as presented in the following part of this study.

## 2. METHOD:

The purpose of this part of the article is to present the nature of the study, survey population, sampling, data collection techniques and tools.

### 2.1 Study population

The main ambition of our study is to question the validity of the theory of the short-term benefits of investments in human capital (Gaglozoun, op.cit), by taking like object of study the use of ICT in the City of Porto-Novo. Taking into account the objectives of our study and the nature of the data to be collected, the main population is made up of at the first time of the whole Porto-Novo's parent's civil servant who have their children in school, and in the second time of the whole students in the city. The target population is made up of the whole students of Lycée Béhanzin and the parents' civil servant serving in the administrations of the capital city, bursting with many large institutions.

### 2.2 Sampling

The non-probabilistic method is the sampling technique used in our study. Thus the principle which has directed to the selection of subjects is the one of reasoned choice. The size of the sample was obtained from the two targets involved in our study. These are the students and parents civil servant in the city of Porto-Novo. The total number of students is 110 and the one of the parents is 20 according to the table below.

Table I: Distribution of respondents / Students by class of study and parents civil servant (CS)

Class	Number	Percentage (100%)
1st form	15	13,63
2 <sup>nd</sup> form	16	14,54
3rd form	20	18,18
4th form	22	20
2 <sup>nde</sup>	13	11,81
1 <sup>ere</sup>	12	10,90
T <sup>le</sup>	12	10,90
Total	110	100
Students' parents CS		
NIYPES	10	50
MNPE	10	50
Total	20	100

The sample size is therefore 130 subjects. The students were chosen at Lycée Béhanzin, the largest high school in Benin. As for parents civil servant, there are 10 parents of students of National Institute of Youth, Physical Education and Sport (NIYPES), one of the most prestigious and large schools of training of certified teachers and high-level youth managerial employee, and also 10 parents of student's in the Ministry of Nursery and Primary Education (MNPE), a ministry of great importance in terms of staff employed.

### 2.3 Means of investigation

To collect the data required for our study, we opted for the administration of a questionnaire and an interview via a semi-directive interview grid. The questionnaire was administered to students in classes by level of study of Béhanzin high school. As for the parents, we spoke with them. The questionnaire and the interview grid were written in French only as the two targets of our study (students and parents) understood and spoke fluently. The questionnaire was originally prepared and was pre-surveyed by some fifteen students of Béhanzin high school. This made it possible to correct the questions which were not univocal and finally to retain the final questionnaire.

### 2-4-Data Processing

The information gathered from the questionnaires was processed with the software EXCEL 2009, WORD 2008 (counting, numbering). The information gathered from the interviews is analyzed manually and by the content analysis method.

## 3. RESULTS:

Our hypothesis assumed that in Porto-Novo parents who are civil servant have recourse to the help of their children to use information and communication technologies. The methodology adopted allowed us to have both quantitative and qualitative results. The quantitative results are derived from the questionnaires sent to the students,

whereas the qualitative results are the result of the interviews we had with parents' civil servants. At the first time, we provided quantitative results and, secondly, qualitative results.

### 3.1 Results from the questionnaire

The following tables represent respondents' interpreted responses to a number of questions that were asked to them. In Table II, we reported the results of the respondents' answers about what they think about the areas in which their parents are investing.

**Table II: Scope of intervention of parents for their children**

Categories	Number	Percentage(%)
School fees	110	100
School supplies	102	92,72
Breakfast Money	100	90,90
Uniforms	94	85,45
Tutorial Fees	04	3,63

While reading table II we noticed that 100% of respondents acknowledged that their parents pay their school fees; 92.72% for school supplies; 90.90% for breakfast money; 85.45% for uniforms and 3.63% for tutorial fees. How long would these investments benefit parents according to the students? The following table gave the data collected on this subject.

**Table III: Deadline for the acquisition of the benefits of investments by parents according to the children**

Terms	Numbers	Percentages
While you are on the benches	23	20,90
In a few years	11	10
When you will have a job	106	96,36

Table III showed that 96.36% of students estimated that the benefits of the investment will be obtained in the long term after access to a job, while 20.90% of them thought that profits can be obtained while they are still on the benches.

For the rest of the work, respondents were asked three questions, the answers of which are summarized in table IV below:

**Table IV: Summary of responses on the help, type of help and sisters / brothers who provide the same assistance to parents:**

Nature of the variable Frequencies of the variable	Children bring help to their parents in ICTs domain	What types of ICT-related support for their parents?	Do children have brothers and / or sisters who help parents with the use of ICTs?
Nature of response and frequency	Yes → 93, 63 % No → 6,36 %	Teach to parents functions 76% → Execute tasks related to the use → 53%	Oui → 91,81% Non → 8, 18 %

The data in this table indicate that the children surveyed provided assistance to their parents, 93.63% against 6.36% who noted that they did not provide this kind of assistance. They are 76% who taught technical functions to parents and 53% who performed for the benefit of their parents only tasks related to the use of CTs. Finally, 91.81% had other brothers and / or sisters who also assisted parents in the use of these tools.

In order to follow up, we have identified the specific work for which the parents are using their children in this field. The graph below shows the results of the answers collected.

Graph 1: Presentation of tasks for which parents have recourse their children

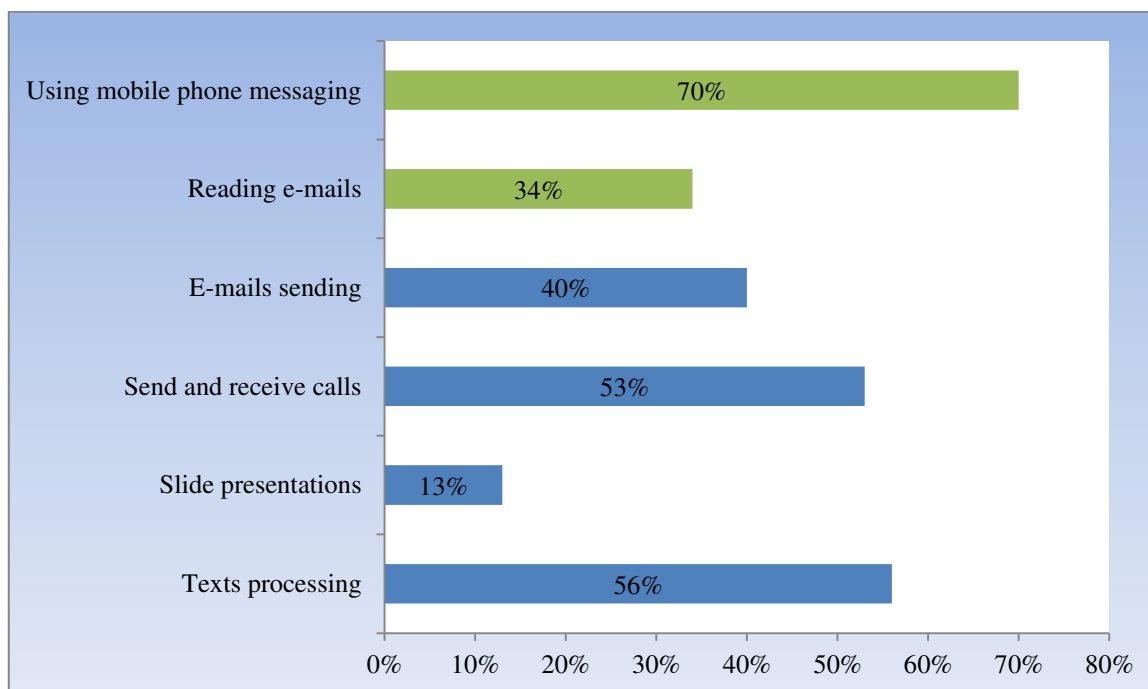


Chart I indicates that 70% of respondents help their parents to use mobile phone messaging; 53% for emission (issue) and reception of calls, 56% for text inputs; 34% and 40% respectively for readings and e-mails sending and 13% for presentations on slides. Later, we asked them to tell us the frequencies of these helps they provided to parents in relation to the tool used. The results of the collected replies are summarized in table V below:

Table V: Frequency of assistance to parents in using ICTs

Tools for which help is requested	Frequencies →			
	Very often	Often	Rarely	Never
	Results in percentages			
Laptop	45,79	16,82	6,54	30,84
Cellphone	59,81	24,29	7,47	8,41
Internet	35,51	19,62	16,82	29,90
Multi-channel television	42,99	26,16	12,14	18,69

We have just received detailed information from the children the help they bring to their parents for the use of ICT. In order to fully understand all aspects of our initial question, it was important that we also interviewed parents on the same issue.

Thus, the quantitative results were presented and interpreted, we presented then the results of the interviews we had with the parents.

### 3.2 Presentation of the results of the interviews

The results of the interviews are presented in the table below, in themes and sub-themes. The themes were formulated on the basis of the interests of our interview grid.

**Table VI: Presentation of results from interviews**

Themes	Sub-themes	Information gathered
ICT  Investing in the education of a child	<p>- Information and Communication Technologies; - it is a new language that children understand better than parents; - they include the means of communication that are fixed and mobile phones, the Internet, Facebook,</p> <p>It is :</p> <p>- to secure the financial, material and intellectual resources to enable the child to succeed - to bring this child to school, to educate him, to extricate him from ignorance and illiteracy; - to ensure a bright future for - to prepare him for its autonomy; - to help him to free himself and get out of the parental yoke - to buy him supplies, uniforms, pay him school fees, give him breakfast money</p>	
Investment benefits	<p>Short-term profits</p> <p>Long-term benefits</p>	<p>- the parents have recourse of the help of their children while they are still on the benches - children help parents in the fields of ICTs (text input, use of internet, emission and reception of calls); - parents are considered in society when their children are in school - helping children in this way contribute to improving our financial resources; - after his training, the child will have his job, a salary; - he can then financially support his parents, support his younger brothers and / or sisters.</p>

**Table VI: Presentation of the results of the interviews (continued)**

Themes	Sub-themes	Information gathered
Recourse to the help of children to use ICTs	<p>Learning from children</p> <p>Entrusting the use of ICTs to children</p>	<p>Children :</p> <p>- teach computers to their parents - show parents how to use the internet, mobile phone, computer software.</p> <p>Children</p> <p>- do research on Internet for parents; - process texts for them; - make calls for them; - capturing TV channels for them</p>
ICTs for which parents make use of their children	<p>- telephones (especially mobile phone) - the computers - audio equipment (especially digital) - tablets</p>	
Utility of the help	<p>- the help is of great importance to parents - the help is important because it is the children who understand better the language of ICTs. - it is a language of their time and parents have trouble understanding it perfectly even if they are helped This is important because parents do not have the time to really focus on ICTs.</p>	

#### 4. DISCUSSION:

##### 4.1 Children's perception of education by parents

This point allowed us to highlight the fact that children recognize their parents' schooling as a right. In this sense, it is noted that these parents provided them with the majority of what is required for their academic performance, such as school fees, school supplies, uniforms (khaki or other), breakfast money and expenses of



tutorials. These different sums of money paid for represented what we called, in the theoretical framework of human capital (Becker (1964), Lemelin (1998)), among other things, the investments that parents make for the education of their children. The question here is whether the children, while still on the benches, contribute to the enrichment of their parents' knowledge and thus improve their production. In this regard, we have sought to highlight this report by taking ICTs as a research object. In other words, do these children help parents by appropriating and / or using ICT-related tools while they go to school?

#### ***4.2 Do children communicate knowledge related to the use of ICTs to their parents?***

Our starting hypothesis, it should be recalled, is that Porto-Novo's parents derive short-term benefits from investments by using their children's help for the use of ICTs. Our results confirmed this hypothesis. Indeed children help their parents in the use of ICTs, the use of computers for presentations, and sometimes for consultations, and research on the net, the use of digital cameras, manipulation of decoders for televisions and especially the use of mobile phones for communications. One can imagine how parents can derive financial benefits from the use of these different devices which certainly generates financial resources that can improve the parents' possessions and thus bring a plus for the economy of the country.

In the context of our study, children are asked by their parents, who are in a very modern setting, which allows us to ignore Gaglozoun's reflection (op.cit), to the effect that the socio-cultural environment of our African societies has restricted the interaction between parents and children which is structured on a rigorous and relatively inflexible top down model from parents to children. As a result, the fact that parents were workers in the public administration offers a great openness to this interaction of flexibility favorable to the exchange of parents for access to these tools related to ICTs. That is why almost all parents with whom we had interviews have recognized that they have recourse their children's help in the use of information and communication technologies. This was done in two ways. The first and most frequent was that children teach their parents how to use some software that seems a bit complicated for their parents. The second way is that parents, as they still do not have the time, entrust their children with performing certain ICT tasks. Parents' support for their children was not the least.

The reason for this infatuation, which erases all considerations of the relations between parents and children as mentioned above, was that these parents were not only attracted by these information and communication technologies which are irresistible on but at the same time they feel it was of great use, at a time when these new technologies have made their implacable eruption in the socio-economic life of Africans by subjugating them to their diktat (Dakoure, op.cit). The parents interviewed have not been involved in this "interference" with ICTs in their lives. This showed that children in school are a source of knowledge no less important at least for educated adults in general and for their parents in particular, especially those who are in a position of workers in modern public or private administration. Consequently, these results suggest that children are taken into account as sources of parents' knowledge, which would improve their production and, of course, impact the Nation's Gross domestic product.

## **5. CONCLUSION:**

In undertaking this study, our ambition was first to contribute to the advancement of knowledge by revisiting the theory of human capital in its dimension relating to the benefits of investment in education and in the training of individuals, to the short term in which these benefits may occur. So, in practical terms, we wanted to know if the children were bringing some information to the parents who are civil servants in the city of Porto-Novo in the field of ICTs. The results of the analyzes provided by the data collected during our research suggest that children constitute a source of knowledge for their parents in the city of Porto-Novo at least as far as the civil servants in the field of ICT are concerned. As a result, this fact highlights the short-term nature of the investments that parents make in the education of their children.

However, in order to achieve this and to make the process more effective, it is useful to set up a program that takes into account the curriculum of children where formal learning of ICT knowledge and skills was to be introduced. This would strengthen their ability to further assist their parents in this area.

Finally, if our study allowed us to draw the conclusion that school children participated to a certain extent in the production of their parents, it is nevertheless necessary to specify a main limit that we acknowledged to it, namely the actual quantification of this contribution. We believed that other studies particularly in the field of econometrics

must be carried out to evaluate this contribution of children in order to validate definitively the thesis of this theory advanced by Gaglozoun (op.cit).

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