EARLY LEARNING ASSESSMENT OF CHILDREN ENTERING PRIMARY EDUCATION

A REGIONAL PROTOTYPE SET OF TOOLS TO SUPPORT
EARLY CHILDHOOD DEVELOPMENT POLICY MAKING
IN WEST AND CENTRAL AFRICA

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1 INTRODUCTION

Public investments in human capital essentially start with access to the primary cycle at the theoretical age of 6 years old. While preschool activities do exist, coverage remains limited in most sub-Saharan African countries; furthermore, research based on household survey data stresses that such activities disproportionately benefit children living in urban areas, and particularly children from privileged social backgrounds.

"IT IS A RARE PUBLIC POLICY INITIATIVE THAT PROMOTES FAIRNESS AND SOCIAL JUSTICE AND AT THE SAME TIME PROMOTES PRODUCTIVITY IN THE ECONOMY AND IN SOCIETY AT LARGE. INVESTING IN DISADVANTAGED YOUNG CHILDREN IS SUCH A POLICY."

J. HECKMAN, NOBEL PRIZE IN ECONOMICS, 2000

Today, the early childhood years, and particularly the period running from birth to age 6, are recognized as a crucial period for young children's development in terms of their physical health as well as the development of their motor, social/emotional, cognitive and language skills. This is supported by a range of both theoretical and empirical research studies in various fields (neurobiology, physiology, psychology, education and the list goes on). For instance, research has shown that an essential phase in the development of children's brains takes place at this time in their lives and that, due to the plasticity of the process, it was highly dependent on the children's development environment and the quantity and quality of stimuli provided. Other research has shown that the same applies to the development of various functional dimensions, such as the individual's emotional equilibrium and good social skills and manners.

- With this in mind, the available research also stresses that families' behaviours and practices and effective actions undertaken, whether explicitly or implicitly, have a decisive impact on the process. This impact may of course be entirely positive. However, it has also been shown that "spontaneous" practices may not be conducive to children's development; in some ways, they may even be harmful. It has also been noted that, while this effectively applies to all children, those who live in socially and culturally disadvantaged family environments are clearly exposed to higher risks. The particular plasticity (which we mentioned above) that exists at early ages dwindles progressively, leading to sedimentation of any progress achieved or delays built up. There is therefore a window of opportunity for action which should not be missed.

- It can therefore be deduced that if providing children with appropriate care and stimulation from earliest childhood can have significant positive impact on their "immediate" development, it also constitutes an "investment" in that it can have considerable impact at a later time.

    - Medium-term impact first of all, in the area of academic education, particularly in the primary cycle. Generally speaking, to take one example, Mingat (2006) has shown that if preschool coverage were increased to 50% in sub-Saharan African countries, we could anticipate a reduction of 6.2 points in the frequency of repeating in primary school and a 15.9 point increase in retention during primary education. On the individual level, it has been shown in research conducted by UNICEF in preparation for its regional early childhood programme that preschool attendance could very significantly increase children's preparedness on entering primary education. The same research also pointed out that pupils who had attended preschool repeated less often, were less likely to drop out of school, completed the primary cycle in fewer years and achieved better learning outcomes; in addition, rather than fading over the course of the primary cycle, the positive impact could actually snowball, as earning achievements at the beginning of the cycle lay the foundation for learning at the end of the cycle.

    - Longer-term impact has been proven as well, as research conducted mainly in more developed countries has demonstrated highly positive impact in terms of the adoption of more harmonious social behaviours, reduced frequency of risky and delinquent social behaviours and higher incomes in adulthood.

These potential benefits and opportunities for action were actually identified during the Dakar Forum in April 2000, to the extent that the number one goal set by the Forum was to prioritize the development of Early Childhood activities, especially for vulnerable children. This point of view has also been cropping up increasingly within international agencies such as UNICEF, UNESCO and others. World Bank specialists have also recently come to consider the provision of early childhood education to be a priority issue. The implementation of early childhood programmes has progressively come to be seen as an important factor in achieving the goals of Education For All, as well as for several aspects of the Millennium Development Goals (i.e. reducing child mortality and achieving gender parity).

In this context, and from a more operational standpoint, it is useful to consider that the overall period running from birth to age six can be divided into 2 sequential and complementary phases:

i) the initial learning stage (notably in the areas of motor, emotional, language and relationship skills) laid down in the family environment in the earliest years of life; to the extent that parents (the mother in particular) play an essential role in the child's day-to-day development during this period, and that it has been determined that parental practices are not "spontaneously optimal", the baseline tool for action is to provide family support and "parental education";

ii) a more complex learning stage built on the foundation of initial learning, which is diversified by developing stronger abilities in the cognitive, linguistic, behavioural and social areas. While the family forms the frame of reference for initial learning, groups of children with an educator in an appropriate setting – a preschool setting in the broad sense – are the most suitable recipe for success in this second phase.

This overall perspective on early childhood education was the focus of the first Education For All (EFA) goal defined in the Dakar Forum in April 2000; however, it has not led to significant achievements in most countries in general and in West and Central African countries in particular. This is notably due to the fact that the main focus has been on the primary level, although in recent years there has been a renewed interest in early childhood education.

2 PRESCHOOL IN THE AFRICAN CONTEXT

2.1 Preschool is a mosaic of disparities

This document focuses on preschool. Its broad aim is to suggest practical ways of improving the existing system and providing basic information to improve that system and serve as a foundation for the development of national programmes that would allow for both upscaling and ensuring quality service. An important element that contributes to both of these two very different goals consists in aiming for cost-effective organization of service provision, and one goals of the application of this prototype is help define the specific form it could take within each national context.

One very typical feature of the current preschool situation in most West and Central African countries is that, despite limited overall coverage, a mosaic of various types of institutions and service providers can often be observed. Under the generic term of "preschool", there is in reality a wide range of types of institutions with different characteristics in terms of the framework in which services are organized (public, private, community-based), with highly specific financing structures (State, NGOs, parents' contributions) that marshal a wide range of volumes of resources per pupil (ranging from one to five fold), and a wide variety of modes of organization (teacher characteristics, group sizes,…) and curriculum contents (focusing more on socialization or on cognitive learning); in addition, the duration of preschool activities can range from one to three years.

When all is said and done, the range of activities children may benefit from before entering primary education can be quite varied on a number of levels (setting aside the fact that the majority of children in their first year of primary education have received no form of preparation). These variations can be broken down as follows:

1. In institutional terms,
preschool centres may be organized, financed and run by a wide array of entities such as the State, the community, non-profit organizations, private enterprise, religious institutions (or partnerships between such entities). According to the environment and the age ranges they serve, these programmes may be known as nurseries, day-care centres, preschools, children's centres, or kindergartens,...

- **Formal preschools** dominate service provision in general and urban areas in particular; this type of institution makes up the oldest and best organized sector of preschool education. Formal preschools take in children aged 3 to 5, most often over three years, known as "sections" in the French system (first, second and third year, or petite, moyenne and grande section), although sometimes they follow a "short", one-year programme (in which case the preschool is attached to a primary school). Public preschools run by the Ministry of Education generally have teaching staff with predefined academic qualifications and specific training. In addition to public preschools, there are also private schools, which often provide services for a substantial proportion of preschool children, and it should be noted that this category includes several different types of providers, amongst which we can notably distinguish faith-based schools (mainly Catholic or Protestant/Evangelical) and secular schools (often individual entrepreneurs). While public schools often provide fairly homogeneous teaching conditions across a country, private schools often feature highly differentiated teaching conditions.

- **Community-based preschools** belong to the informal sector. This type of preschool is found in rural areas, often in places where the population lives under difficult conditions. The community-based formula was mostly developed from the 1990s onward; institutions are directly created and run by local communities, although they are sometimes (often) supported by NGOs (and also by UNICEF) or by a cooperation agency. In light of the fact that they are organized locally and due to the variety of unique situations, generic community-based schools are also characterized by a certain disparity in the range of services actually provided, although they tend to share a fairly Spartan organizational style in relation to the services they provide.

- Finally, in some countries, **koranic schools** correspond to a traditional form of children's education focusing on early religious training. They are quite widespread in African countries that have a Muslim population and present advantages for families due to their low cost and the fact that they teach basic religious education (and sometimes more). These schools take in children who are usually over four and often even five years old. Thus, given primary school entry at age six, koranic school attendance prior to primary school access often lasts only one year (sometimes two).

2. Depending on the types of institutions, **the cost and financing of services** can also vary widely.

- If we examine, first of all, the situation of **public preschools** using a **comparative international perspective**, the average cost per student ranges from less than 10% to more than 40% of GDP per inhabitant.

- If we review the situation of the **different types of institutions** that provide some form of activities for young children **in a given country**, the gap can be very large, with formal institutions (in general, and public schools in particular) proving considerably more costly than informal institutions including community-based preschools.

- The **funding structure** may also vary widely according to the type of preschool, with consequences on the social characteristics of the children attending them. Because formal preschools (particularly private ones) are quite often located in urban areas, rural people, who often live in more difficult social conditions, attend them more rarely. As for public schools, they do charge fees but these are generally much lower than those charged for enrolment in private institutions. The high level of private school fees adds a **social dimension** to the urban dimension of intake in that type of institution.

Theoretically, the situation is better in public schools, however, it is not unusual for school fees to be charged. This can limit preschool attendance by children from underprivileged backgrounds, but it can also have negative consequences on the quality of services to the extent that the amounts asked of the families (but which are actually not paid by a significant proportion of children in schools located in underprivileged areas) are supposed to be used to purchase small items of equipment and consumables to ensure the running of the schools and the quality of the services provided for the pupils.

- *A priori*, the situation in community-based schools is more difficult to the extent that they are attended by rural people who are often socially underprivileged and often receive very little support from the State. In fact, experience shows that community-based schools need to receive support in order to ensure a certain sustainability and provide a minimum quality of services. Support may include: (i) provision of short courses of training and some monitoring for community-based educators, (ii) provision of material kits to carry out targeted activities and (iii) sometimes a contribution to the educator's remuneration. However, the weakness of community-based preschool is often directly linked to this last point, when the community is also asked to contribute to educators' remuneration (in cash and/or in kind), because remuneration is necessary but the most destitute communities have a hard time providing and maintaining their share of funding.

3. Due to the variations in the level of spending per child, the conditions under which preschool services are provided also vary.

For instance, an examination of the resources and organizational methods deployed shows that the average pupil-teacher ratio ranges from 15 to 50 across sub-Saharan countries, but that the figure can oscillate within an even larger range within individual countries (between different types of preschools on average but even more if we consider individual institutions at the local level). Similarly, it has been found that the teachers' level of education may not go beyond the primary level in certain institutions (particularly community-based preschools), whereas in others, they may have taken post-secondary studies. There is considerable variation both in terms of the training the teachers have received and its content (theoretical teacher education or training targeted on preschool activities) and in the non-payroll resources (minor equipment, consumables) available to facilitate learning. Taken together, these variations in terms of teaching inputs and conditions can obviously lead to variability in the actual quality of the services provided, and children's degree of preparedness for entering the primary cycle and for their subsequent formal learning. The nature of the infrastructure may also vary widely, ranging from temporary shelters to permanent classrooms.

4. Finally, in terms of contents and curriculums taught,
there is also considerable variety. Generally speaking, we can consider in the first place that content will range somewhere along the continuum between socialization (with the extreme being just a daycare) and, at the other end of the scale, activities focusing on cognitive development. We can also go into further detail in terms of content (particularly in cognitive terms) by breaking it down into categories such as space/time, graphic skills, pre-numeracy skills, and language in particular, making a distinction between the language of use spoken by the children and the language that will be used during their primary schooling). Reality often shows that curriculum contents can be significantly different both from one country to another and between individual types and institutions within a given country. Considering that preschool should notably help children to prepare for primary school entry, it is readily understandable that variation in curriculum contents can have an impact on children's degree of preparedness for entering the primary education cycle.

5. Beyond the differences applying to the organization of preschool services, the time factor should also be taken into account;
indeed, this aspect plays a non-negligible role:

- In the first place, time **is an additional dimension of diversity** to the extent that in a single country, various types of preschools may coexist that do not offer services of the same duration;

- Consequently, this **dimension should also be taken into account** (along with other types of differences that have been described elsewhere) in **evaluations of pupils' degree of preparedness** on entering primary education. But the relevant aspect that should be considered is the actual length of time spent by each child in a preschool institution prior to entering primary school, and not the "official" duration of the type of preschool attended. Thus, to take one example, if we consider a preschool curriculum that theoretically lasts three years (for children aged 3, 4 and 5) it is not unusual for certain children (sometimes even a high proportion) to only take 2 years (either because they did not enter preschool until they were four years old or because they entered at age three but began primary school "early" at the age of five), or sometimes even just one year. For reasons explained in the following point, evaluating the relationship between the duration of preschool studies and preparedness for primary education is critically important.

- Finally, duration should also be taken into consideration because it is a **vital parameter in education policy for preschool.** Simply put, policy-makers would like to provide the best quality services for the greatest possible number. To the extent that the financial resources that can be made available for preschool are limited, these two goals are contradictory (more spending per child in preschool means fewer children can benefit from the service). In this context, it is important to take into consideration the fact that the actual quality of preschool services stems from the combined impact on preparedness for primary education (i) of the cost of the methods of organization of the services provided and (ii) the duration for which said services are provided. Thus, it is obvious that, from an education policy standpoint, duration (which is costly; for example, all other things being equal, 3 years of preschool cost 50% more than 2 years of preschool) is comparable in importance to the intrinsic quality of services.

2.2 Diversity also applies to the results achieved

In the point above, we were able to observe that children's preschool experiences (for those who actually attended preschool) varied widely prior to their entry into primary school. One could reasonably expect (i) that receiving some form of preschool education would leave behind a positive impact (as compared to those who did not receive any) and (ii) that some types of experiences would leave more positive impact than others. Furthermore, the evidence of the impact can be seen at different times in the life of the child. We can notably distinguish between (i) the time of entry into primary education based on tests focusing on the skills required to begin formal learning, and (ii) the primary education cycle (which could be examined at several different levels) focusing on the one hand on the smoothness of children's educational paths (repeating, dropouts and time taken to complete the cycle) and on the other hand on their education outcomes.

1. The few surveys conducted on **early learning skills in children entering primary education** (in Mauritania, Cap Verde and Togo) in the framework of preparing prototypes for the UNICEF regional programme for West and Central African countries demonstrate, first of all, the positive impact of preschool education (compared to the absence of preschool education). They also show that the intensity of this impact varies widely across the three study countries; finally, they show the differences in the level of preparation for primary education between the different types of preschools that exist in each country.

2. In addition, some analyses are available on the **impact of preschool attendance on pupils' performance during primary education.** These are secondary analyses carried out based on PASEC data, which is aimed at measuring pupils' performance in mathematics and French[1] in primary grades two and five. By controlling for the impact of social variables and accounting for selection bias, it is possible to measure the positive impact of preschool (without being able to distinguish between different types or durations) in all of the study countries (Congo, Mauritania, Senegal and Togo); however, it was also found that the extent of the impact varied widely from one country to another, and that the impact was low in Mauritania, "average" in Senegal and Congo, and higher in Togo.

2.3 A challenge, and an opportunity for information and more effective action

By taking account of these variations, we can obtain a picture of the highly disparate range of services provided, although they all share the generic label of "preschool". Under such conditions, when someone talks about developing preschool services, it is important to determine what those services are. A clear outlook for preschool education policy is to provide quality services that effectively prepare children for their primary education **and** to be able to provide such services for the bulk of the population and, particularly, for the country's most vulnerable children. Because resources are necessarily limited, this means that efforts must be made to achieve efficiency (minimizing the cost of quality services) and that the neces–sary trade-offs must be made to pursue these two "main targets", quantity and quality, which are contradictory in part.

Research of this kind should be undertaken in each country to the extent that national situations are all unique as specified above. However, we generally lack spontaneous access to factual data on the abovementioned points, although they are essential for defining the

1. Or other official language.

most appropriate education policy for preschool. It is therefore indispensable to conduct preparatory studies to produce a foundation of validated information with a view both to improving the existing forms of preschools in terms of their quality and efficiency and laying down the structural outlines of preschool education policy[2].

In order to achieve this, a formal assessment must be carried out of existing the preschool services in each country. However, while the evaluation will undoubtedly include an initial phase of description of the existing situation, it should also and above all compare the variations in the five major preschool service dimensions identified in point 2.1 above and the results achieved in terms of children's preparedness for primary education. Learning from variations is both an exceptional learning opportunity and a research challenge. Although the method may be empirically validated through complementary and cross-measurement of the impacts of the various factors, this will require specific research to be conducted, which is the focus of this prototype.

Obviously, while the method used to produce baseline data is important, it needs to be transcribed into the definition of possible scenarios for the development of a national early childhood programme[3]. The latter must be articulated both in the framework of the education sector plan and in a context of obvious budget constraints if the national early childhood programme (perhaps a bit less fancy than we would have liked) is to be effectively financed and implemented. With this in mind, significant efforts must be made to ensure that the national early childhood programme is developed both in compliance with technical standards that will ensure its credibility and financial sustainability and in such a way as to demonstrate that beyond its objectives in terms of coverage, it can provide efficient, high-quality services with real impact, particularly in terms of enhancing the efficiency and quality of primary education.

As these issues potentially apply to all countries, UNICEF's WCARO office in Dakar has laid down a foundation for a regional programme focusing on early childhood. The basic idea consists in facilitating the definition and implementation of national early childhood programmes in each country, with support from local UNICEF offices. The aim is to help each country produce quality early childhood services (combining parenting education and preschool) on a wide scale of coverage and in an integrated and sustainable context.

To achieve this, a financial framework is required, but as a prerequisite, the medium-term coverage prospects, service production options and unit costs and associated budgets need to be identified, and scenarios need to be developed so policy-makers can make strategic choices and validate one of the options.

This step of overarching framing requires suitable data, particularly in terms of the contents of the services to be provided. The potential range of preschool services that can be offered needs to be evaluated beforehand. The UNICEF regional early childhood programme prototype (early learning assessment of children entering primary education), which is our focus here, is aimed at helping countries (i) build up a body of factual data on the reality and effectiveness of existing preschool services and (ii) lay down the foundations to develop relevant scenarios that will help countries define national programmes.

2. And also how to organize programmes upon entry into primary education for children who have not had access to any form of preschool education, since, despite significant development of preschool coverage over the next 15 years, a sizeable proportion of the age group (and in fact the majority) will continue to enter primary school without having attended preschool.
3. The programme may also include (i) specific activities such as parenting education to promote early childhood development and (ii) provisions to facilitate primary-school access for those children who will continue to enter the cycle without having had preschool over the next twenty years.

3

MAPPING EXISTING PRESCHOOL SERVICES

Before the different types of preschools that exist in the country can be evaluated, they must first be described. This step is required to define the scope of the analyses that will be conducted subsequently and, more instrumentally, to organize the design of the survey sample for the evaluation:

- The first step is to **identify the different types of preschools** including some that may not be taken into account by official statistics but which provide services for young people prior to their entry into primary school; these may notably include informal institutions, community-based preschools and/or religious preschools (including koranic schools). It may sometimes be useful to distinguish between several categories within a specific type of preschool (for instance, by distinguishing between private secular and private confessional institutions, or between traditional and "modernized" koranic schools); there is no specific format since the aim is to identify the unique features existing in each country:

- The first aspect to be documented is the **number of pupils enrolled in each type of school** under study (showing trends, if possible).

- It is then useful to determine **their geographical distribution on the territory** both in terms of the urban or rural environment and "regional" location.

- In addition, it is also important to gather data on **the social characteristics of the pupils** and particularly whether they are children from privileged families or socially disadvantaged or vulnerable families.

- In order to complete the necessary initial description of the different types of preschools, data should be gathered on their methods of organization:

  - the duration over which preschool services are provided prior to primary cycle access, and the children's daily and weekly timetables

  - the contents of the activities provided for children (particularly the focus or the time given to socialization activities and activities aimed at promoting children's cognitive development). Languages (spoken at home, or introduced/taught during training) will also be documented.

  - the types of funding used for the various types of institutions under study (State, parent, community, NGO, etc.)

  - the characteristics of the staff employed (education, training, salary levels, degree of permanency, etc.)

  - the nature of the infrastructure used.

  - the availability of minor items of equipment and consumables for children (and whether or not it is deemed sufficient).

In order to carry out the initial mapping, every kind of source may be used. Certainly, factual data is preferred: official statistics and secondary use of existing household survey data (such as MICS, but not only) can be utilized (household survey data will be useful for studying a child's chances of receiving preschool education based on his or her background and family wealth). However, more qualitative data from the relevant stakeholders can also be mobilized to complement or replace factual data in certain areas of research.

4 INTRODUCTION TO THE STUDY ON EARLY LEARNING ASSESSMENT OF CHILDREN ENTERING PRIMARY EDUCATION

A future national preschool programme may be developed in reference to the way the existing forms of preschool operate in the country and particularly based on the variations, which are often quite significant, in the services provided in terms of content, organizational methods, operating methods, etc. In order to define the most suitable education policy for the preschool level, factual knowledge of the various forms of preschool that exist is an essential data baseline. However, beyond the descriptive aspect, which is necessary in itself, this also entails the need to conduct a dedicated survey to evaluate the actual production of services as to their quality in terms of preparing children for primary school.

As we have already pointed out, the early learning assessment that is the focus of this prototype has two main focuses, namely:

i) a **focus on knowledge**, both of the respective performances of the different types of preschools in terms of preparing children to get off to a good start in their primary education **and** (above all) the impact of preschool education organizational factors (duration, educator education and training, group size, contents of the activities provided for the children, linguistic aspects, etc.) on the extent to which the children acquired the necessary prerequisites identified for primary education.

ii) an **operational focus** aimed at defining the outlines of the preschool education policy that will be the most conducive to preparing children for primary education, while identifying the most cost-effective modes of organization (for the sub-sector as a whole and for each of its different components) in terms of duration, educators' background in terms of education and training, group size, the contents of the activities provided for the children, linguistic aspects, and also content.

This being said, the usefulness of this research can also extend to adjustments to the first year of primary education; indeed, as long as not all of the children in the country have access to preschool, skills gaps, and the need for remediation, will persist. Knowing the biggest and most significant skills gaps in children who enter primary school without having received

any form of preschool beforehand would provide valuable insights into how to redefine the contents of the first year of primary education. The idea is to ease the difficulties encountered by such children and, de facto, contribute to qualitatively improving the primary cycle both in terms of learning and the risk of repeating and early dropouts.

The purpose of this methodological guide is to provide the necessary baseline data to build, analyse and interpret the data of a specific survey on evaluation of prerequisites in children entering primary education according to whether or not they attended preschool and according to the type of preschool they took (for those who did receive preschool education). Five main phases in the implementation of such studies have been identified (see diagram below).

These different phases will be reviewed successively.

5 DESIGNING METHODOLOGICAL TOOLS

HOW CAN WE IDENTIFY PREREQUISITES FOR PRIMARY-SCHOOL ENTRY WITH A VIEW TO ASSESSING THE QUALITY OF PRESCHOOL SERVICES ACCORDING TO THE TYPE OF INSTITUTION ATTENDED?

An evaluation of the quality of existing preschool services should enable us to identify which types of institutions (i) seem particularly promising (in light of their impact and the costs associated with them) and could be used when we consider providing services on a wider scale; (ii) need improvement in specific areas; or (iii) should perhaps be abandoned. The quality of a service is a concept determined by a specific context; it can be defined and measured in different ways. However, there are formal and management characteristics and quality process elements that can serve as a foundation for describing the way preschool services are operated and anticipate the outcomes in terms of development:

- **Structural variables:** type of institution, timetables and duration of the programme
- **Organizational and logistic variables:** pupil/educator ratio, group size, physical environment, and availability of equipment and teaching materials;
- **Educator variables:** level of education, training, supervision and remuneration;
- **Programme variables:** programme intensity, language of instruction, skills focused on by the programme and curriculum content, parental involvement;

That being said, the variables of interest for a survey on children's preparedness for entering primary education in the areas of cognitive, emotional, linguistic and motor skills development, effectively speak to **the diversity of types and modes of organization** of preschool services. The goal, as explained above, is to assess, to a certain extent, the effectiveness of the different types of preschool institutions in preparing children for success in primary education, as well as to identify skills gaps and their causes with a view to reducing them by adjusting the contents of preschool education, but also of the first year of primary school over the short term.

Beyond these general considerations, the need to undertake a survey to obtain validated factual data rather than basing research on subjective opinions (regarding which there are furthermore often contradictory positions) entails the implementation of concrete and well-organized measures. Two elements are essential in this regard, namely: (i) the sample design (the sample should be representative of the variety of different types of preschools and include children who have not attended preschool, as well as including the geographic dimension in terms of rural/urban settings and regions), and (ii) the design of the measurement tool and the accompanying documentation, i.e. a questionnaire on the child to be surveyed and technical tools for the actual implementation of the survey.

5.1 Identification of the survey sample

To the extent that the field study is scheduled to take place between two weeks and one month following the start of the school year (and it is important to take account of the fact that some schools may start late), prep work, particularly the identification of the survey sample, should be envisaged before the end of the previous school year (at a time when the year's education statistics are generally available), i.e. in May or June.

In the first place, it should be pointed out that a survey cannot be conducted on every primary entrant in the country in order to carry out the analysis; such an approach would entail extremely high costs and logistical issues in terms of the organization of the work; and above all, it is not necessary; it is enough to work on a sample of children: (i) some of whom have not received any form of preschool education to serve as a baseline and above all (ii) others who have received preschool education, representing all types of preschool institutions identified during the previous descriptive phase as being of interest for the study to the extent that they contribute to the overall supply of activities provided for children before access to primary school.

Due note should be taken of one essential element of the organization of the survey: it is conducted at the start of the school year in a certain number of primary schools, and focuses on children identified for having attended not just specific types of preschools (or no preschool at all) but clearly identified institutions regarding which we will seek to gain specific knowledge of the means at their disposal and the operating methods they use. The sample must take account of this double determination.

School statistics were used as the point of departure for the sample design. These statistics list the preschool institutions operating in the country during the school year preceding the survey (or the most recent year for which such data are available). There is, however, a risk that certain types of preschools that offer services for children before they enter primary school and whose usefulness for the study has been previously identified may not be included in official statistics (we have mentioned above the case of traditional or modernized koranic schools, but this may also apply to other, non-documented types of preschools). A targeted survey should then be conducted (particularly in areas where such schools are likely to exist) to complete the baseline data and include those types of institutions in the sample design.

Based on this general baseline date on preschool institutions, it would then be useful to identify their distribution (i) according to type or status (public, private confessional, private secular, community-based, koranic schools, etc.); and (ii) by geographic location, distinguishing between the different provinces or regions and the urban or rural settings in which the preschools are established.

The first step is to determine the number of children to be included in the sample per type of preschool selected. As a reasonable baseline, a number in the area of 150 to 200 could be used for each type of institution (and a comparable number of children who did not attend preschool). Based on 200 children per type of institution and five different types of institutions, the overall sample would total 1,200 [= 200 * (5+1)] children surveyed. In light of the fact that the testing conditions used to evaluate the children's skills (see below) suggest taking 10 children per primary school, this means that both the number of primary schools where the survey is conducted and the number of preschool institutions previously attended by the primary entrants who had received preschool education would be 120.

The next step consists of distributing these 120 preschool institutions (24 for each of the 5 types of institutions under consideration) by geographical region and setting. For this purpose, we can be guided by the overall distribution of the types of institutions according to those criteria, since the schools can only be chosen where they exist. For instance, there is no point trying to find community-based schools in urban areas if they do not exist there, or private confessional schools outside the city if such institutions only exist in urban settings; similarly, koranic schools may only exist in certain geographic areas in the country under consideration.

Thus, groups of preschool institutions cutting across the different types of institutions, regions and settings are identified and, within those groups, individual schools can be selected in numbers in keeping with the sample design. The selection is theoretically random within each group. However, the location of the institutions can be checked on a map to determine whether some of the chosen schools are very far away from the others, which would make the field study more difficult to carry out; under such circumstances, a particularly out-of-the-way school could be traded for a comparable institution that is more conveniently located. Thus, the preschool institutions targeted in the sample can be identified (column 3 for preschool institutions in urban areas, and 6 for those in rural settings in Table 1, below).

Table 1 : List of preschool institutions and associated primary schools

Région (1)	Number of schools (2)	Type: Urban preschool Name and location (3)	Total urban preschools (4)	Corresponding primary school (name and location) (5)	Type: Rural preschool Name and location (6)	Total rural preschools (7)	Corresponding primary school (name and location) (8)
1 Region A	12	Public, name:... Public, name:... Private confessional, name	12	Name:... Name:... Name:...	0	0	
1 Region B	12	Community-based name:... Public, name:... Private, secular name :...	12	Name:... Name:... Name:...	Community-based name:... Public, name:... Private, secular name :...	4	Name:... Name:... Name:...
N Region N	16	Public, name:... Koranic, name:... Community-based, name:...	8	Name:... Name:... Name:...	Public, name:... Koranic, name:... Community-based, name:...	8	Name:... Name:... Name:...
Total	**120**		**70**			**50**	

Once we have nominally identified the preschool institutions targeted for evaluation, the next step consists in identifying primary schools that mainly take in children who have attended the different preschools. Geographical proximity is often a relevant indication, but it may sometimes be useful to seek information directly from system stakeholders who are well informed on the local level (inspectors, school principals, etc.). This will make it possible to establish a nominal list (including location) of primary schools where field studies will be conducted at the start of the next school year (columns 5 and 8 in Table 1 above).

The sample of children desired for the study can be determined on this basis, in the case of the children who attended some form of preschool. Table 2, below, allows us to progress, from a more operational perspective, towards the actual implementation of the survey. It notably includes: (i) a nominal list (in a reduced form here) of the 120 target preschool institutions (column 6), and the primary schools associated with them (column 7), as well as (ii) the number of pupils to be found within each of the primary schools surveyed who attended the target preschools (column 4), namely 8 pupils, to which we add, in each primary school, 2 pupils who did not attend preschool before entering primary school (column 5); this procedure, consisting in selecting the pupils who did not attend preschool in the same primary schools (and thus the same catchment areas) where the pupils who received preschool education were selected, is designed to improve the comparative quality of the assessment activities.

Table 2: Structure of the schools (primary schools and preschools) and pupils in the sample

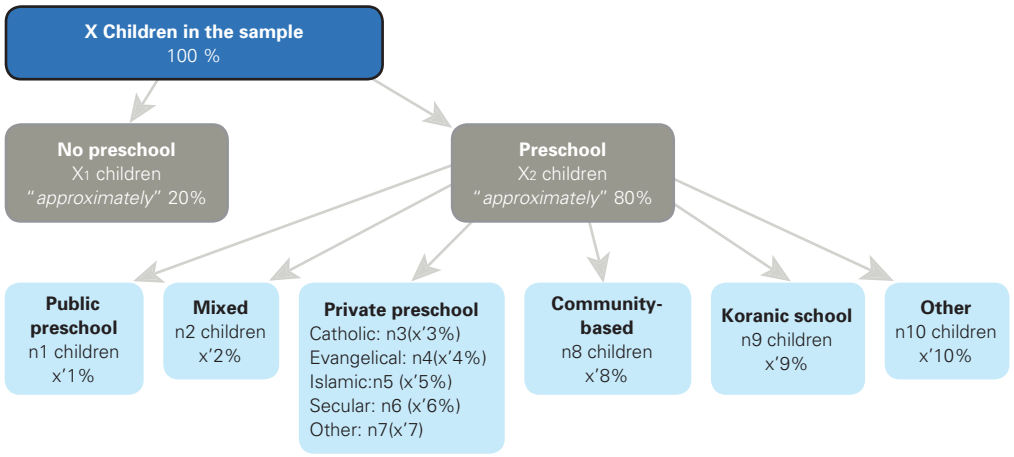
Types of preschool institutions (1)	Type (2)	Preschool type code (3)	Primary entrants		Preschool institutions (6)	Associated primary schools (7)
			Attended preschool (4)	Did not attend preschool (5)		
Public	**Total**	1	8 (4G+4F) 8 (4G+4F) 8 (4G+4F) **192**	2 (1G+1F) 2 (1G+1F) 2 (1G+1F) **48**	a b y **24**	A B Y **24**
Private confessional	**Total**	2	8 (4G+4F) 8 (4G+4F) 8 (4G+4F) **192**	2 (1G+1F) 2 (1G+1F) 2 (1G+1F) **48**	aa bb yy **24**	AA BB YY **24**
Private secular		3	192	48		
Community-based		4	192	48		
Koranic school		5	192	48		
No preschool		9				
Total		**Total**	**960**	**240**	**120**	**120**

Thus, the distribution of the sample will include a number of pupils who attended preschool which will be more than proportional to their actual representation in the country (particularly where preschool coverage is low). However, this arrangement allows for: (i) a good assessment of the level of pupils' skills on entering primary education, based on formal learning prerequisites, that compares the different existing types of preschools (including no preschool), knowing that (ii) by controlling the sample, subsequent corrections can be made to take account of the fact that the majority of the children never actually attended preschool at all.

The gender issue was not taken into consideration in the sample design. However, it can be easily be taken into account in the concrete implementation of the survey, to the extent that, when 8 children who attended a given type of preschool are chosen in the primary school where the survey is conducted, we can make sure 4 boys and 4 girls are chosen (and one boy and one girl for the two who did not attend preschool). Thus, we can achieve a balanced gender distribution for each of the different sample strata, as well as for the sample as a whole.

Figure 1, below, gives an idea of the distribution of pupils in the sample according to whether or not they attended preschool and what type of preschool they attended.

Figure 1: Distribution of pupils in the sample according to their preschool background



In summary, the sample is designed to take account of several constraints:

- it must be large enough to provide a reliable image of the population of pupils who have newly entered their first year of primary education. Previous studies have shown that a sample in the area of 1,000 to 1,500 was sufficient both to account for the overall national situation (after correction to take account of the different sampling rates for different categories of pupils) and obtain data that is sufficiently accurate to take account of the differences that may exist between the different types of preschools in a given country.

- the sample of primary schools surveyed should be large enough to avoid specific situations but small enough to optimise survey management and costs, while ensuring that it is possible to merge (i) the data gathered at the beginning of the school year in primary grade one and (ii) the data on the modes of organization of the specific preschool institution each child was able to attend prior to enrolment in primary school.

- the number of pupils surveyed should be limited to ten per school so that the task of the administrators in charge of testing is not so difficult it would run the risk of compromising the success of the survey. Out of the ten pupils, 8 will have attended a predefined preschool institution (of a specific type and with a particular kind of organization), while the two other children will not have attended preschool.

- finally, the sample will have to provide good geographical coverage across the national territory, ensuring that the main regions of the country are covered, as well as both urban and rural environments. It is expected that, through the implementation of the survey, a balance will be struck in terms of the distribution of pupils by age and sex.

5.2. Design and administration conditions of the early learning skills assessment test for primary entrants

To assess pupils entering the primary education cycle, a specially-designed tool is required. Its contents will be organized in reference to what has been validated in numerous education psychology studies (mainly conducted in northern countries but believed to have "universal" value) as representing the prerequisite skills pupils need to effectively tackle formal learning in the primary cycle[4]. In the initial phase of UNICEF's regional Early Childhood programme for West and Central African countries, and during the preparatory work for this prototype in six countries in the region, a benchmark tool was designed in keeping with those criteria. This tool can serve as a foundation for future research on the topic. Some adaptations, probably more formal than functional, may be necessary depending on the specific country environment; in such cases, the amended tool should be pretested prior to its finalization and actual use.

The areas focused on are motor skills, cognitive development, language skills and social development; they are broken down into finer detail under the following headings:

› **Cognitive skills:** these skills refer to the capacity for organized, independent and abstract thought, paying attention and problem solving. Concretely, these skills can be demonstrated through the ability to stack items and fit them together, sort and classify objects, match things, memorize information, distinguish between the concepts of number and quantity, and so on.

- **Quantity/Number:** these refer to children's ability to recognize whether there is a little or a lot of an item, and which items are big and bigger, small and smaller, or big and small.

- **Spatiotemporal skills:** Children's ability to judge the relative positions of items, i.e. their ability to position one object from the visual scene in relation to another:
  - Relationships of location (in front of, to the right of, etc.)
  - Relationships of proximity (far away, nearby, next to, etc.)
  - Relationships of containment (outside, inside, in, out of, etc.)
  - Relationships of succession (before, after, at the beginning, at the end, etc.)

- **Serialization and Encoding/Transfer:** The criteria for serialization and encoding/transfer are comprehension and transitivity. It is important to assess the skills involved to the extent that their acquisition enables pupils to develop crosscutting skills, particularly in terms of structuring time and space, and these skills then have a positive impact on pupils' basic learning in the primary cycle, particularly in the area of reading (Mingat and Suchaut, 1994). Encoding/transfer exercises focusing on translating colours into movements or associating a character or symbol with a colour or completing a logical sequence of symbols.

- **Association/Classification:** The development of this notion in children follows a simultaneous process of differentiation and coordination. The focus is on identifying the ability to discern differences and similarities between items or categories of items.

- **Memorization:** Children's ability to recognize their environment and use and organize their knowledge. These skills involve concentration, listening skills and attentiveness, culminating in the development of verbal memory (finding an item that has been mentioned) and visual memory (recognizing an item that has been seen before).

4. Fernald et al. (2009) stated that, while these psychological skills are useful for school, they are also more generally useful for adaptability in real life.

› **Motor skills:** These include two components: gross and fine motor skills. Gross motor skills refer to movements that involve several large body parts or the whole body (Paoletti, 1999), such as: walking, running, jumping, standing on one foot and closing one eye (coordination between two or more movements: foot-eye coordination or hand-eye coordination). Fine motor skills involve fine, precise and meticulous movements. Development of fine motor skills allows children to achieve progress in the acquisition of writing skills, but also in mastering day-to-day activities such as eating, combing their hair, cutting out shapes, colouring, etc. Fine motor skills lay the foundation for graphic activities (representing human figures, animals, houses, suns or simple geometric shapes such as circles, squares, triangles, etc.). The development of these skills is believed to correlate with the maturation of the nervous system, perceptual organization and symbolic play in children.

› **Executive functions:** these are a combination of cognitive, social and emotional skills that can also be measured and which include fluid skills or processes that are engaged when a person is faced with a new situation, problem or stimulus. Although they are often classified among the cognitive functions, these fluid skills are different from cognition, which is crystallized or corresponds to knowledge of information. These functions include: impulse control, the ability to initiate an action; the capacity for sustained attention, and persistence. Engaging executive functions allows human beings to adapt to constantly changing environments, a skill that is indispensable for success in school, work and everyday living. Thus, the process of attention in preschool is associated with academic achievement.

› **Language/communication skills** (expression; comprehension): these skills involve the ability to understand everything that is said, to understand instructions, to communicate with adults and other children, the ability to provide details about things (by saying, for instance, "the big, red apple") as well as the ability to concentrate on short stories and understand them.

› **Social-emotional skills** (behaviour/socialization): include young children's feelings of confidence and security in their school environment. These indicators include getting on well with peers and teachers; good behaviour (following instructions and cooperating on request); social perceptiveness (ability to identify thoughts and feelings in self and others); and self-regulation skills (emotional and behavioural control, especially in stressful situations).

Table 3, below, provides complete information about these different skill areas and dimensions. Test items are then designed to assess children's skills in the abovementioned areas.

Table 3: Overview of the areas covered by the tests and their methods of administration

Area/Skill	Dimension	Test (Child)		Other tools
		Administration	Items	
Cognitive development	1. Space-time 2. Association 3. Graphic skills 4. Numbers 5. Rhythm 6. Memorization	Collective/ Individual Collective Collective Collective Collective Collective/ Individual	6 2 4 3 3 4	
Language	7. Comprehension 8. Expression	Collective/ Individual Individual	6 5	
Socialization	9. Behaviour during the test	Individual	2	Observation by the administrator
	10. Behaviour at school	Individual	3	Teacher Questions

For each focus area/dimension, test items are designed with the tools that go with them (illustrations, pictures, etc). However, the testing conditions are very important in light of the age of the children and particularly the fact that the tests are administered during the first few weeks of primary school, when the school setting is new to a certain number of the children involved and especially those who have not received any "preschool" education prior to entering primary. It follows that "paper-and-pencil" testing is in no way practicable and that practical arrangements must be chosen that are adapted to the situation. Two aspects of test administration should be considered:

- The first pertains to the **physical conditions of test administration** in which individual and collective testing methods should be distinguished. In light of the children's limited abilities both in terms of written expression and attention skills, individual administration is theoretically the preferred method. However, the procedure is by its very nature extremely time-consuming (and therefore costly) if we hope, on the one hand, to have a large enough number of children in the sample and, on the other hand, to cover the various aspects of their abilities quite thoroughly.

Under these conditions, the strategy was to opt for collective test administration, but under more manageable conditions, for all test items whenever possible, and to use individual test administration only for those items that could not be administered collectively (particularly when the child needs to be alone to express an answer and when the answer involves a gesture that can be seen or heard by others, such as raising one's right hand or saying the name of an object out loud). That said, the term "collective administration" does not necessarily refer to a whole class; on the contrary, it may apply to a "relatively small" number of children. Experience has shown that a group of 5 children, seated one in front of the

other to ensure that the children's answers are indeed their own (and not, sometimes, their neighbour's), provides perfectly acceptable administration conditions, while ensuring an acceptable balance between what is desirable and what is feasible.

- The second pertains to **the methods used to ask questions and obtain answers.** Since it is not possible to use written answers (except for items on graphic skills), different arrangements turned out to be very useful and more appropriate. Questions may be asked orally (in a language regularly used by the children, except for questions testing their knowledge of the language of instruction in primary school) and/or illustrations may be used to establish a situation scenario for the children; answers are provided using illustrations (identical to those used when questions are asked by administrators) which the children use by placing their fingers on what they believe to be the correct answer. A slate may also be used for questions that require a graphic answer (i.e. copying a figure or a letter).

Finally, as certain more behavioural or relational dimensions were difficult to grasp using the methods described above, practical approaches were used complementarily. Regarding these specific aspects, one possibility consists in questioning teachers (on children's relations with their peers and their adaptation to the school environment) who have been in contact with the children during the first two or three weeks of the school year. Another possibility is to ask the administrators testing the children to provide information on the children's behaviour during the exercise based on their observations.

The general principles underlying these tests are as follows:

* The test must be fair: the measurement must be valid (it must measure what needs to be measured) and reliable (it must measure the same things over time) for children with different characteristics (gender, social background, etc.);

* For each test item, all types of materials used to establish situation scenarios for the children must be familiar (photos, pictures, symbols, etc.) and culturally relevant to the children;

* Testing must be carried out in non-stressful conditions in a location that is known/reassuring to the children (i.e. their classroom);

* The time allowed for answering must remain short for each question, while leaving enough time so as not to inflict stress on the children; furthermore, the overall duration of the test (or of each testing session if there are several) must be compatible with their attention spans.

* Test items should measure target skills in children without using implementation procedures that actually measure the children's skills in relation to said implementation procedures rather than the specific skills purportedly measured by each test item (notable examples could include the language used to ask the questions or the use of written answers).

By combining the target skill areas to be evaluated with these general principles, a series of test items was identified and used (in slightly different forms) in studies that have already been conducted in Mauritania, Cape Verde and Togo. We therefore have access to a baseline

version of learning assessment tests. As mentioned above, this version of the test may be adjusted and/or augmented according to specific features in national environments[5]. However, it is felt that this baseline test provides a reasonable foundation for analysing relevant skills in children entering the primary cycle in a given country and can also be used derivatively to:

i) conduct a comparative assessment of the performance of the different types of preschools existing in a given country (or compare countries in which studies of this kind are undertaken);

ii) identify the organizational characteristics of the different types of preschools (activity contents, types of teachers used, etc.) that have proven to be cost-effective and can serve as a baseline for defining the outline of a new education policy aimed at scaling-up preschool services;

Table 4 below provides a descriptive list of the different items; an illustration of their actual contents is provided in Annex 1. They address the four main areas identified and viewed as essential in terms of preparing children to enter primary education. The test comprises 35 items in all.

As the national teams made formal adjustments to test items to adapt them to the specific features of their national environments, it is important to carry out a test run on small group of children with characteristics similar to those targeted by the study. The contents or presentation of certain items or their methods of administration may then be revised in order to finalize the national version of the assessment tool.

5.3 Pupil questionnaire and record sheet

Based on studies that have already been conducted in various countries in the region (Mauritania, Cape Verde and Togo) and others that are currently underway (São Tomé and Príncipe, Niger and Senegal), we also have a basic questionnaire to gather data on some of the important characteristics of the child; it may be seen in Annex 2 of this document. It is divided into two sections, since it also includes the child's answers to the test items.

5.3.1 Individual characteristics of the child

The first half of the questionnaire provides information on the child to be surveyed. The first set of data focuses on the school attended by the child at the time of the study, notably the name of the school, the area it is located in (region, department, commune, district, etc.), its geographical environment (urban or rural) and its status (public, private, community-based or other).

The next set of data focuses on the pupil's identity, including his or her first and last name, ID number (where applicable), study identifier[7], gender, age and, where applicable, his or her mother tongue (if the country is characterized by linguistic diversity).

5. These adjustments could be made by a national team comprising people in charge of preschool services and primary education in the country (inspectors or academic advisors).
6. Or other official language.
7. The pupil identifier is created by the administrator; once a group of 10 pupils to be surveyed has been identified, the administrator divides them into two groups (A and B) of 5 pupils each, and in each of the two groups, the pupils will be numbered from 1 to 5, so that in group A, for instance, there will be 5 pupils with identifiers A1, A2, A3, A4 and A5.

Table 4: Framework for tools to be finalized

Areas	Number	Targets	Characteristics	Administration	Marking system
Space-time (1)	11	Before-After (Time)	Constructing a picture (construction)	5	
	12	Before-After (Space)	Constructing a picture (lining up 3 objects with a sense of direction)	5	
	13	Lateralization (Left-Right)	Constructing a picture (showing the objects on the left and the right / showing one's right hand side)	5-1	
	14	Top-Bottom (Space)	Constructing a picture (object with a sense of direction)	5	
	15	On-Under	Constructing a picture (object on/under the table)	5	
	16	Inside-Outside	Constructing a picture (object inside/outside)	5	
Association (2)	21	Association-Differentiation (4)	Constructing a picture (show what goes with what)	5	
	22		Finding similarities and odd ones out		
	23		Visual discrimination between letters (b/p-d/q, etc.) 2 levels of difficulty		
Memorization (3)	31	Verbal	2 sentences (remembering one item)	1	
	32...	Visual (2 degrees of difficulty) equality between pupils who had and had not attended preschool. Higher degree of difficulty for those who attended preschool.	Picture memory (object removed/object present)	5	
Graphic skills (4)	41...	Reproducing shapes (5 – with degrees of	Line, circle, triangle, letters, numbers	5	(1) if close to perfect, (2) if satisfactory, (0) if no answer
	42	Reproducing characters	Various sticks, letters, numbers	5	(1) if close to perfect, (2) if satisfactory, (0) if no answer
	43	Drawing objects	Glass, tree	5	(1) if close to perfect, (2) if satisfactory, (0) if no answer
Quantities / Number (5)	51...	Comparison of sizes	Sticks/shapes, objects (animated or inanimate)	5	(1) if close to perfect, (2) if satisfactory, (0) if no answer
	52	Comparing numbers of identical objects	(3 and 6) oranges, cats	5	
	53	Comparing numbers of objects of different sizes	(3 and 6) avocadoes, pineapples	5	
Rhythm (6)	54...	Sequence (3 levels)	Translating an abstract sign into an action	5	
	61...	Encoding / Transfer (2/3 levels)	Abstract base (signs, colours) – Action base (movements, music)	5	
Language-Comprehension (7)	62	Knowledge of words in local language		1	
	63...	Knowledge of words in French[6] (5 levels)		1	
	71	Comprehension of instructions in local language and French		1	
	72	Questions with yesterday, now, tomorrow (never/ever)	Check for an understanding of time only	1	
Language-Expression (8)	81	Colours (local language and French)		1	
	82	Days of the week		1	(1) if in the right order, (2) if in the wrong order, (0) if no answer
	83	Parts of the body (local language)		1	
	84	First name and last name		1	
	85	Everyday objects (local language and French)		1	
	86	Telling a story based on pictures (local language)		1	
Child behaviour during test (administrator) (9)					
		Overall attitude?			Good (1), Average (2), With difficulty (3)
					Good (1), Average (2), With difficulty (3)
Behaviour (teacher) (9)		Child follows instructions well			
		Child is willing to work			Good (1), Average (2), With difficulty (3)
					Good (1), Average (2), With difficulty (3)
		Adjustment to the school environment			Good (1), Average (2), With difficulty (3)
		Peer relationships			
		Motivation to perform the tasks requested			

The third set of data pertains to any preschool education received by the child before entering primary. If children have received preschool education, their school is identified (the administrator must be informed in advance), and its name and code[8] provided, along with the type of preschool attended (public, private, community-based, koranic or other), and above all the number of years actually spent in preschool.

Finally, the last set of data is of a social nature and pertains to the child's family. In the first place, it is noted whether the child lives with both of his or her biological parents, with one parent and a guardian (single-parent family), or whether the child is raised in a home without either of his or her biological parents. This is followed by the professions of the child's father (or guardian) and mother (or guardian)[9].

5.3.2 The child's performance on the test

The second half of the pupil questionnaire includes the child's answers to the assessment test items; on this half, the administrator fills in the scored answers to each of the items making up the skills areas chosen to measure the children's mastery of the prerequisites for entering primary education.

This section is defined after the finalization of the tool for measuring mastery of educational prerequisites. A certain number of items correspond to each skills area and for each item there are different types of answers; for instance, if we take the item in which the child must point to the object that is under the table, his or her answered will be scored "0" if the answer is wrong, "1" if the answer is right and "9" if the child fails to answer. In addition, for certain items that include multiple points such as the item targeting fine motor skills in which the pupil is asked to reproduce geometric figures, the answer may be complete, partial, or of course completely wrong. Scoring will range from 0 to 4 to the extent that the aim is to reproduce four lines ("0" if none of the lines are accurately reproduced, "1" if only one line was reproduced, "2" if two lines were satisfactorily reproduced, and so on). Thus, in this section of the questionnaire, the boxes corresponding to the name and number of each selected item are filled in along with the boxes where the answers are recorded (see Annex 2).

Thus, on the day the test is administered, the administrator identifies the pupils to be surveyed and divides them into two groups of five children, group A and group B, and each pupil will be assigned an identifier, according to the group he or she belongs to and the number he or she is given. It should also be noted that, according to the nature of the test items, some are administered collectively and others individually. Regarding items that are administered collectively, one difficulty that was observed was for the administrator to score all of the answers in real time on the individual scoring sheets of all five children being tested. To overcome this difficulty, it was more convenient to prepare a "record sheet" for each group to record the answers to the items administered collectively.

8. The school code is the code used in the statistical data of the Ministry of Education or, if such is not the case, it is the code created by the study to identify the different schools. This code is the key to merging the different databases.
9. The team working on the questionnaire could ask the national statistics bureau for the method used to establish codes for various categories of professions. It is preferable to divide professions into categories rather than going into detail (for example, "professionals" will include doctors, jurists, pharmacists, dentists, and professors, while ranchers, farmers and fishermen can be placed into the category of "farmers". These categories, which are defined in the questionnaire, may be grouped together in the course of analysis if necessary.

This sheet's heading will naturally bear the name of the school and the letter identifying the group (A or B). This information will be followed by a table summarizing the titles and numbers of the items according to the skills areas selected to assess the children's mastery of educational prerequisites, the scoring code for each answer, and columns where the administrator will record the scored answers of each of the pupils in the group (A or B) on each item. The pupils will be identified using their study identifiers (pupils A1 or B1, A2 or B2 and so on). This sheet, known as the "record sheet" is also designed after the assessment tool has been finalized (see Annex 3 for an example).

5.3.2 Preparing an administrator's guide

Administrator training is provided by the two-consultant team and by members of the national team taking part in the organization of the study (personnel from the preschool and/or primary education agency, inspectors, UNICEF, and others). This was the case in Togo, where members of the Ministry of Education (MEPS) team participated in the training of survey administrators and supervised them during field work. The quality of the survey data is determined, to a large extent, by the quality of the training provided for the survey administrators. Hence the importance of preparing an "administrator's guide", a document that includes, firstly, general instructions on how to contact the regional authorities (regional director, district inspector) and school principals; although in theory, before the survey is conducted, the preschool education agency is supposed to inform the local authorities and school principals of the study underway and specifically ask them to gather information on the professions of both parents (or guardians) of all new primary entrants when they enroll in grade one.

However, the main purpose of the guide is to provide relevant information on the concrete procedures involved in conducting the survey. It indicates how administrators are to go about preparing for the survey with assistance from the school principal, how to choose pupils to undergo testing: 8 pupils who attended the specific preschool institution identified for that primary school and 2 pupils who did not receive any form of preschool education[10]. The guide also provides information and tips on how to prepare and fill in assessment sheets for each pupil to be surveyed; it provides examples to facilitate comprehension of the questions asked and their actual administration to pupils. Finally, the document also indicates how and to whom the survey documentation (notably the individual pupil sheets, in separate batches for each primary school) is to be submitted following the survey.

The administrator's guide (an illustrative example can be found in Annex 4) is therefore intended both as a training material for administrators and a framework to help them carry out their work in the field; it is considered good practice to draft an administrator's guide (at least in part) in tandem with the administrators themselves during their three (or four) days of training scheduled to take place approximately two weeks before the start of the survey operations.

It is important for administrators to be able to refer to a framework document if they have questions while administering the test. They receive the guide along with a kit including the assessment tool and documentation (test items with large and small illustrations, pupil questionnaires and record sheets, in quantities corresponding to their survey programme).

10. For instance, if eight children cannot be found who have attended the target preschool institution, then the administrator selects all of the pupils who do have the desired characteristic and then makes up the number to reach 8 with children who have attended a preschool other than the one targeted in that particular primary school.

Finally, a telephone number will be handed out to all administrators so that they can reach a hotline (active throughout the duration of the survey) capable of answering questions on specific, unforeseen circumstances that may arise while the survey is in progress. It should be noted that **the timing and duration of survey implementation** need to be planned as part of the organization of the work:

- Regarding **timing**, it has already been pointed out that it is preferable to begin approximately two weeks after the start of the school year; However, experience proves that, in actuality, the start of the school year may not be homogeneous throughout the territory of a country and that some organization may be required to introduce the necessary flexibility to deal with this situation;

- Regarding **the duration of survey implementation**, it is preferable for it to be short, taking place over more or less two weeks (within the time limits indicated in the previous point) so that the children surveyed have not already acquired real primary education experience by the time they are assessed.

It should be noted that the number of administrators should be low, since an administrator can complete testing in one primary school (10 pupils in two groups of 5) per day and thus a single person can conduct surveys on ten school days, so that, theoretically, a single administrator can survey 100 primary pupils. Accordingly, an overall sample of 1,200 children requires the equivalent of 12 administrators over 2 weeks.

5.4 Data on the characteristics of individual preschool institutions

First of all, it should be recalled that the sample identified for the purposes of the survey was designed based on administrative data about the various types of preschool institutions existing in the country. The focus of the assessment is on **individual** preschool institutions. It is essential to take the adjective "individual" into consideration. While belonging to a "generic type" of preschool (i.e. a community-based organization or a private, confessional preschool, etc.) is certainly important to take into consideration, what matters here is also whether the preschool in question is "Our Lady of Grace" of such-and-such a place or the "Learning Tree" preschool in another location. The aim is not only to assess the average performance of the different generic types of preschools, but also and above all to take advantage of the general variability between individual preschool institutions (between types of institutions, but also between the institutions themselves) in terms of their modes of organization (resources, teacher characteristics, class size, contents taught, etc.) to identify those factors that exert a proven impact on children's preparedness on entering primary education[11].

Broadly speaking, the empirical method for identifying organizational factors in institutions that have a proven impact on children's chances[12] of being effectively prepared for primary entry consists in comparing children's survey test performance with the characteristics of the preschool institutions they attended. Thus, appropriate data must be gathered on this latter point.

11. The primary schools identified are indeed important since they are the locus where the survey is organized; however, primary schools are chosen only because they are "partners" with the targeted preschools (this partnership, often based on geographic proximity, is founded on the fact that we can expect to find children there who, the previous year, attended the individual target preschools that are instrumental to this analysis).
12. To the extent that children also have individual (personal and social) characteristics that may contribute to their development in general and to their early learning skills at the start of primary education in particular, these individual attributes should also be taken into consideration in the analysis.

* The school statistics file that lists all "official" preschool institutions operating in the country during the last school year prior to the study (or during the most recent year for which such data are available) constitutes an important reference for the data we need. Although the format of administrative data may differ from one country to another, they generally include information: (i) on the school in general, its location and its institutional anchoring, as well as its type, infrastructure and equipment; (ii) on its pupils (age, gender, year); and (iii) on the staff it employs (age, level of education, training received, experience, status, etc.). The sample of preschool institutions is designed based on this statistics file. A code is assigned to each individual preschool (a pre-existing code may be used where appropriate), and this code is also used to identify the preschool of origin on each child's individual sheet during the survey conducted in the partner primary schools at the start of the school year.

* However, some of the preschools included in the survey sample may not be listed in the Ministry's administrative data. In such cases, a special investigation should be carried out to gather any missing data and fill in the administrative database on the preschools; a simplified questionnaire including the main administrative baseline variables could also be designed and administered according to procedures to be defined by the national team (before the survey, parallel to the survey, etc.) in the local environment.

* Our experience in conducting this type of assessment, during the progressive development of this prototype in several countries in the region, has led us to consider that the information contained in preschool administrative databases are generally insufficient for carrying out the desired analyses. In particular, if we could sort out the influence of individual factors (including the duration of preschool attendance and social factors: type of geographical environment and parents' profession) on the one hand and the impact of logistic and organizational factors on the other hand, then the remaining significant differences would be between types of preschools and individual preschool institutions. We could then conjecture that these differences may be due to aspects such as the availability of minor equipment and consumables to pupils, the teaching methods used, the way the schools are managed and the resources marshalled to run them (by source and use).

It was to this purpose that an additional questionnaire was developed (in the countries where the survey is underway, first in São Tomé and Príncipe, and then more thoroughly in Niger and Senegal) with a view to enriching the database describing preschool institutions and the contents they teach. The questionnaire is intended to be administered to principals of preschool institutions. Prepared by the national team in charge of conducting the survey, the questionnaire is administered to each of the institutions included in the sample[13] (see example in Annex 5).

After the questionnaire is collected, the data gathered (including individual school codes) is entered using the appropriate template so that it can be merged with the administrative database on preschool institutions (which may be extended with the addition of types not included in the original administrative statistics).

13. It is divided into three parts, respectively focusing on: (i) spending in the year prior to the field study (State contribution, contributions from parents/communities, support from other partners, etc.) and how the funds were used; (ii) teaching contents (priority and time granted to different activities), the language used in interactions with the children and the extent to which the language of primary education is used; and (iii) information on the regularity of preschool services, children's attendance, the regularity with which educators' salaries are paid, etc.

6 DATA PROCESSING AND ANALYSIS

Before the survey data can be analysed, the files must be organized and the data "cleaned up". More specifically, this means (i) checking for consistency in the data and reducing the number of outliers and missing data; (ii) merging the different files and, finally, (iii) creating baseline variables and synthetic scores by skills areas or specific skills in order to analyse the early learning assessment on children entering primary education according to whether or not they attended preschool.

6.1 Quality control and consistency in baseline data

Before the two baseline files (pupil database and database on preschool institutions) are merged into a single aggregate file, the data needs to be carefully cleaned. This can take any one of a number of forms. The aim is to minimize the amount of unreliable or missing data (and their potential impact on the results of the analysis). To achieve this, various approaches may be used:

* The simplest approach consists in identifying any codes that differ from those included in the questionnaire design and dealing with each case. For instance, a code 3 for pupil gender is not possible, because each child must be either code 1 or 2 (a boy or a girl); cases such as this can be dealt with based on the child's first name, and this is normally done during data entry using a template that identifies any such problems immediately. The same applies to the pupil's age, or scores on test items that must fall within a given range.

* Checks may also be run based on the construction of new variables, notably ones calculated as the ratio between existing variables. Examples include the teacher-pupil ratio in preschools, or non-payroll operating expenditure per pupil. These variables are potentially important for the analysis, and it is important to avoid the glaring errors to avoid distorting subsequent estimates. Naturally, a certain amount of variability is to be expected, but it can also be imagined that very low or very high figures may be the result of errors (in either item of data, either when it was gathered or during data entry). In this regard, it can be highly enlightening to review the distribution of the variables considered (in addition to the fact that this provides an opportunity to become acquainted with the diversity of the reality being analysed). More generally, it is always helpful to examine descriptions of the distribution of variables whose scope is not theoretically constrained by coding.

* More insidious errors may also be detected when the two baseline files are merged, particularly when preschool codes do not match in the two files. Such errors must imperatively be corrected, because the merged files form the foundation for the database used in the analysis. In addition, identification of errors in codes may also reveal larger errors in the file merge; a certain number of manual checks must be run and these are made possible by the fact that the file only includes between 100 and 150 preschool institutions.

* The points above focus on potential errors in the numerical values of the variables, but investigations aimed at improving and completing the database may also involve missing values for a given variable or a given individual or institution. Particular attention should be focused on this, because, if nothing is done to correct the problem, the machine will erase all individuals for whom a value is missing, even for a single variable; and since the idea is to identify the combined impact of a certain number of variables, we potentially run the risk of losing numerous individual observations. The issue is more serious when the missing values apply to an institution because, in that case, the institution and all of the individuals who attended it are eliminated de facto. Several different approaches may be used to deal with these issues (recoding, estimating the most likely value based on other known information, using an average value to maintain the observation without influencing overall relationships, or using a method that compiles missing data on a specific variable that will be used as such in the analysis).

Finally, it should be noted that we have mainly used examples illustrating how to "clean up" processing files and the variables they contain, and that space does not allow us to detail every type of case we may encounter. What should be stressed, however, is that this preliminary work (which often requires a considerable amount of time) is vital and constitutes a worthwhile investment to be undertaken before entering into more targeted analyses of the survey subject itself.

6.2 Merging "pupil files" with "preschool institution files"

As mentioned previously, early learning assessment of children entering primary education is based on two baseline data files: (i) a pupil file including the characteristics of the children surveyed (age, gender, family environment, parents'/guardians' SPC, prior preschool status) as well as their scored answers for each of the test items; and (ii) a "preschool institutions" file containing data describing the preschools in terms of their equipment, enrolment, staff (educators), and modes of operation and organization, as well as data on the curriculum contents taught in the schools and data of a financial nature.

These two files pertain to two different levels of analysis; furthermore, they do not contain the same number of observations (perhaps 1,200 for the individual files and 120 for the preschool files, as the individual data is gathered on the basis of tests administered to 10 children, 8 of whom attended a specific school and 2 of whom did not receive any form of preschool education prior to entering primary education).

To the extent that the analyses take place at the level of the children, the aim is to merge the two files while ensuring that the characteristics and data on the preschool each child attended is linked to the data on the child. The files are merged in statistics-processing software using a standard method. In SPSS software, which is often used, the "Merge File" command is used, and "Add Variables" is selected, using the variable or identification key that links each child to the preschool he or she attended, i.e. the preschool's ID code.

6.3 Test performances and construction of synthetic scores

Test results can be analysed on three levels:

i) the first level consists of an initial description of the performances on the various items, the identification of areas where children showed particular deficits, and an assessment of the extent of their skills gaps;

ii) the second level of analysis compares test performances with a certain number of characteristics pertaining to the children and their families in order to better understand the impact of social variables on variations in skills development in children in light of their age and gender; and

iii) finally, the third level more specifically introduces the children's preschool background in order to determine the existence and, where it exists, the intensity of the link between children's preschool background and their level of performance on entering the primary cycle. The pupils' performance could be analysed based on their performance on the individual items or based on synthetic measurements covering broader skills areas identified beforehand.

There are two different approaches to the construction of a synthetic performance indicator for an individual child in one or multiple areas: (i) the first approach is to simply and directly add up all the scores on the different items; (ii) the second is to carry out a factor analysis of the different test items in a single skills area. In so doing, it is considered that, beyond success on a particular item in a given area, there is a latent variable describing the overall performance of each child in this area.

6.3.1 Creating synthetic scores based on the "direct additive method"

To achieve this, aggregate scores are calculated for each of the dimensions under consideration (OSS), using the sum of the scores obtained on each of the items concerned. Before this addition is carried out, however, it is generally necessary to review the measurements used to score the test answers. The items should be recoded using the reasonable instrumental hypothesis that all those who failed to answer the item (generally coded as 9 in the initial scoring) did not actually know the correct answer, so that their answer should be considered a

wrong answer (which is generally coded as 0). By adding up the scores on the different items (after the revision taking account of failures to answer), we obtain a summary of the overall performance of each child in each area considered; an overall score may also be calculated by adding up all of the aggregate scores for each of the different dimensions[14].

6.3.2 Creating a synthetic score using the factor analysis method

The factor analysis method is based on the idea that, for a set of items (which could either be restricted to a single thematic area or correspond to the skills assessment test as a whole), there is an overall latent skill level that is specifically measured by the score on each item. According to this view, each item contains: (i) a reflection of the overall skill level which cannot be directly observed and (ii) special ability in relation to the unique nature of the test on each individual item[15]. The application of the factor analysis method to a set of scores is included in various statistics software packages (including SPSS, which is often used in this type of work). It can be used to identify each child's overall skills level, which is viewed as a measurement of the child's preparedness for primary education based on the range of items taken into consideration.

Based on these two methods, which can of course be easily implemented in tandem, we can produce a series of synthetic indicators: (i) for thematic scores for each specific skills area that is focused on in the test (space & time, graphic skills, language skills, etc.); (ii) for overall scores; using both the additive perspective and the factor analysis perspective to measure them.

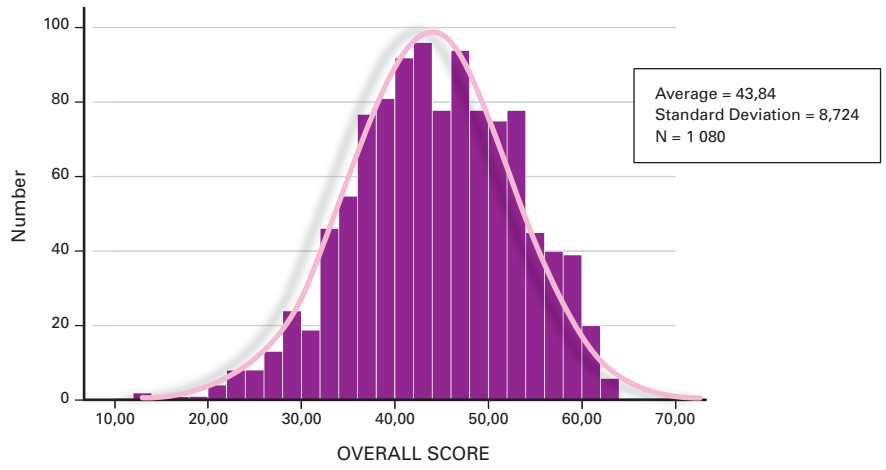
However, it should be noted that these different scores are expressed on different scales (they do not have the same average or the same standard deviation). Under those conditions, direct comparison is impossible, and yet we would like to be able to make such comparisons. This is important to the extent that we would like to determine, for instance, whether the differences between the different types of preschools are greater for specific areas of pupil skills. It is also important when we are seeking to identify the weight of explanatory factors and modelling variability in individual performance; indeed, in order to compare the coefficients of the models estimated for the different study areas, it is important to use a common, standardized scale for all scores.

For the above reasons, it is helpful to normalize or standardize the different scores, after estimating them as "raw measurements". This can be carried out by recalibrating the raw measurements and assigning them numbers to achieve the same average and the same standard deviation. These common values may be chosen without any particular restrictions, however, researchers commonly opt for either (i) a standard normal distribution of the gross variable (with an average of 0 and a standard deviation of 1), or (ii) a distribution commonly used in psychology tests, in which scores are standardized using an average of 100 and a standard deviation of 15. This latter form is, in fact, preferable because the standard normal distribution of the variable is less familiar to system stakeholders or non-specialists who will be called upon to consult the assessment results.

14. In this context, it could be interesting to create an overall matrix of the correlations between the different aggregate scores attached to each of the thematic dimensions considered in the preparation for the survey, as well as the overall score; this could be used to identify the strength of relationships between the dimensions and especially to measure which dimensions are more strongly linked to the overall score (which measures the degree of preparedness for primary education).
15. A bit as if we wanted to measure overall athletic ability and to achieve this we organized a series of tests on running, jumping, throwing, swimming, etc. In this conceptual framework, the score on each event is a reflection of the overall level of ability (people who perform well athletically tend to run fast, jump high, throw far, and so on) as well as an indication of their specific ability in each of the events in question.

These scores constitute a baseline reference for all analyses to be conducted, and they will be used to estimate and validate the impact of all activities (according to their various characteristics) that took place prior to primary access; it should be stressed that it is not so much the score in itself as its variability that is the key focus here. To illustrate this, Graph 1, below, shows the distribution of the non-standardized overall additive score[16] from the experimental study conducted in Togo. The average is 43.8 and standard deviation is 8.7. Overall, the distribution of the scores is quite close to the classic bell curve (as seen in the graph). A standardized distribution would have the same overall shape, but its average value would be set at 100 and its standard deviation at 15.

Graph 1: Distribution of a non-standardized overall additive synthetic score (Togo, 2014)



This graph clearly shows the existence of considerable variability between individuals in terms of the sample children's overall skills levels on entering primary, with an additive score that varies over a range of 20 to 60 points.

* This variability in individual performance is, first and foremost, **a useful observation in itself.** Children entering primary already have highly differentiated skills bases. Thus, the empirical validity of the saying that "primary teachers write their pupils' learning on a blank slate" clearly needs to be put into perspective: on entering primary, the slate is probably still quite blank in the case of some pupils, but it is partly filled in for others, and this will place them in much more favourable conditions in their primary education[17].

16. After standardization, the shape is obviously the same overall, but since the standard deviation was made to take a value of 15, it is no longer possible to judge "in the absolute" whether the initial dispersion was high or low.
17. Primary school operating methods should doubtless better take account of this fact.

* However, the variability of performance between individuals also provides **an essential opportunity** to reflect on the factors that might statistically account for at least part of the difference. Thus, the primary entry learning assessment can serve as a framework for an evaluation (which will provide empirical validation) of what went on in the period prior to primary access. In this regard, two groups of variables can be distinguished:

  i) **exogenous** variables that are social or geographical in nature, which need to be identified and their impact quantified. Their importance is founded on two complementary reasons: the first is that to properly estimate the impact of the education policy variables to be examined, it is important to control for the influence of social and geographic variables, since these latter have an overall impact on early childhood development; they also need to be taken into consideration and their impact controlled for in evaluating the different types of preschools to the extent that they often cater to a clientele that is differentiated on those terms (and, since these social differentiations are general, they also apply within each of the types of preschools); finally, the fact that these variables are exogenous does not mean we do not need to seek how to reduce their impact on preschool education;

  ii) endogenous variables that can be more directly **acted upon through education** policies and that can be used to improve the average situation in terms of children's preparedness for entering primary school (and thus the quality of primary education itself) and to reduce disparities between social groups. These factors are the focus of the evaluation, but it should be kept in mind that the value of the assessment of the existing situation lies in its potential use as a foundation for future education policy design.

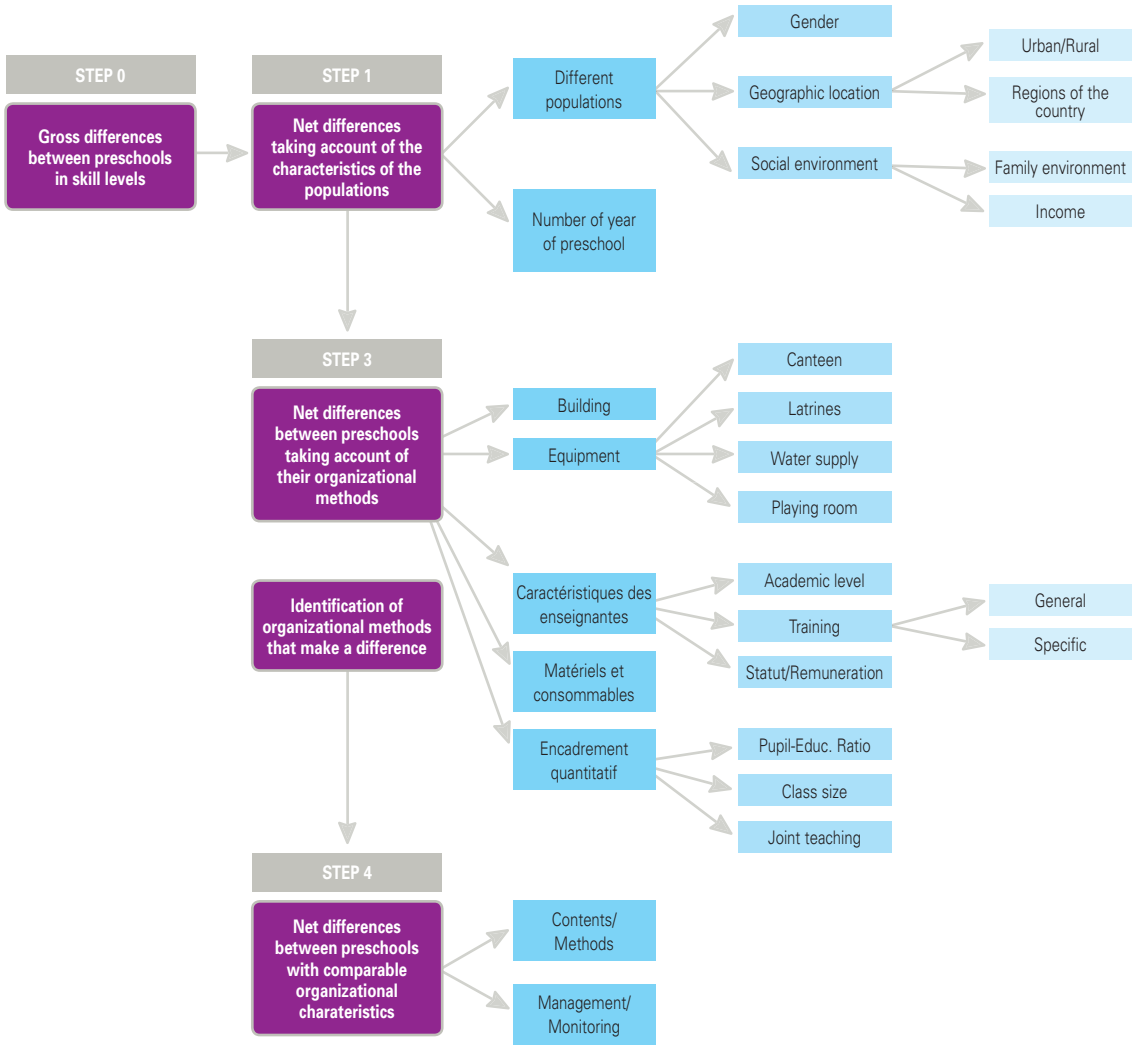
6.4 An approach that could be used to analyse the study data

In light of two basic facts, i.e. (i) that numerous different variables, at different levels of analysis, may potentially account for the variability in children's skills levels on entering primary (illustrated in Graph 1 above), and (ii) that these variables interact with each other, it is important to carry out the appropriate analyses, while ensuring that (i) they are relevant in terms of statistical processing and (ii) they are meaningful and relevant to readers without special training[18].

Figure 2 provides a synoptic outline of a concrete approach that could be implemented, combining the various steps described below.

18. Neither of these aspects should be overlooked or take precedence over the other. However, while relevancy and meaningfulness are essential (and efforts need to be made in this area), they should not be achieved at the cost of data processing that would be ultimately invalid from an analytical standpoint.

Figure 2: Overall synopsis of the analytical approach



STEP 1

To begin with, it is interesting to describe the scores of the pupils surveyed regarding their skills in the various areas using the simplest statistical tools (comparing averages) and show the gross differences between pupils using simple categories that do not include controls for the influence of various other variables. These could include the differences in scoring between girls and boys, urban and rural dwellers, the rich and the poor, or different regions of the country, but above all the differences between children who have taken preschool and those who have not, and also gross differences in scoring between pupils according to the type of preschool they attended the previous year, which is an important target variable in the analyses carried out here.

It should be kept in mind that the gaps that will be presented in step 1 are based on gross and univariate data and that the impact of statistical relationships with the other variables should not be underestimated[19]. Thus, the effect of any given variable may become stronger or weaker when we measure (in the following steps) the (more or less) net influences of these statistical relationships in the context of a multivariate model.

Multivariate model of the impact of the different variables on skills

The aim of the steps below is to arrive at a better understanding of how the impact of certain favourable or unfavourable individual and social variables affecting the child and variables pertaining to preschools and their modes of organization can combine to account for variations in children's skills levels on entering the primary cycle. As these variables may be partially statistically linked, it is preferable to use multivariate modelling techniques. All other things being equal, these techniques make it possible to determine whether a variable has an impact on the target variable and, if so, to discern whether that impact is positive or negative and determine its range. Because the variables to be explained can be viewed as continuous, the specification selected was multiple linear regression (Ordinary Least Squares) which was applied to the various standardized synthetic scores.

STEP 2

After measuring the gross differences between types of preschools, it is important to take account of the fact that the distribution of pupils' geographic location and social characteristics, as well as the length of the preschool studies they have completed on entering primary school, may vary widely both on average between types of preschools and between individual preschools of the same type. For instance, community-based preschools are mainly rural with pupils from modest backgrounds, whilst private preschools are urban and recruit socially privileged pupils. Since urban and socially privileged children generally have better cognitive and linguistic development, it is important to control for these exogenous characteristics so comparisons can be made between different types of preschools while removing the influence of these "noise" factors on the gross effects assessed in the previous step.

STEP 3

After separating out the influence of geographical and social factors in step 2, net differences (geographic and social factors and the duration of preschool studies) doubtless remain between different types of preschools and individual preschools. In step 3, we examine to what extent these differences can be explained by the differences in the resources they mobilize and the methods of organization they implement (teacher training and education, class size, etc.). By so doing, we also identify which of these factors make a difference in terms of learning in children. This information is obviously very important for the assessment report, but even more so in the future with a view to defining cost-effective preschool education policies[20].

19. For instance, the gross difference between primary entrants from wealthy and underprivileged environments may certainly be due in part to the fact that rich children develop in a more enabling family environment, but also in part due to the fact that, on average, these two population groups do not live in the same geographical environments (mainly urban for the rich and quite often rural for the poor); and also that preschool is more often attended by rich children than by their socially underprivileged peers. Gross gaps between the rich and the poor undoubtedly exist, and it is important to identify them; but it is also important to be very cautious in terms of interpreting estimated raw data.
20. To achieve this, one must naturally look beyond the impact of the different factors and establish their relationship to the associated costs.

STEP 4

After step 3, we find ourselves with "doubly net" differences between preschools and types of preschools to the extent that we have controlled for both the impact of (i) the pupils' geographic location, social characteristics and the duration of their preschool attendance (in the case of those who received preschool education) and (ii) the resources mobilized and the methods of logistic organization of their preschool studies.

Gaps doubtless remain between the different types of preschools considered in the study, although it is also highly probable that, at that stage, the hierarchies between them may be quite different from what they were in step 1 or 2. If gaps remain, then they are linked to the fact that the work conducted so far is not perfect (due to inaccuracies in the data used and because additional aspects that should have been taken into account may be missing); these arguments are and always will be present to some extent no matter how many efforts are made. However, gaps may also remain because, beyond the impact of the clientele and formal modes of organization, the various types of preschools may also provide services of a "fundamentally" different nature in terms of:

i) the contents of the activities provided for the children on a daily basis, as certain types of schools or individual preschools may focus more on socialization, while others may concentrate more on cognitive learning;

ii) linguistic aspects, with longer or shorter time segments for this type of learning, particularly in reference to the language that will be subsequently used as the official language of instruction throughout the primary cycle;

iii) the teaching methods and approaches used to teach the contents referred to in points (i) and (ii) above;

iv) the methods used to manage the schools, both generally and in terms of teaching and the support given to educators in terms of monitoring and the quality of their work.

These points are important to consider, and the questionnaire, which complements the administrative data gathered from the preschools, is aimed at documenting these points. It is indeed possible that, as has been observed in other levels of education (notably primary education), it is not really resources that matter the most (although obviously minimum resources are required) but that the impact of the way resources are used at local level is quite significant.

STEP 5

Step 4 marks the completion of the technical dimension of the assessment in itself. However, a very important fifth step also needs to be taken into consideration. This is reporting on the study findings. This step is always important; it is doubtless even more important when a study includes a degree of technicality that may be beyond the usual experience of system stakeholders and decision-makers. Particular efforts need to be made, both in terms of explanations and time taken, so that the meaning of the approaches used and the results obtained is clearly understood (educational approach) and that thorough ownership of the findings can be achieved by the actors involved.

7

TOWARDS A DEFINITION OF A BENCHMARK PRESCHOOL CURRICULUM

The first thing that should be pointed out is that it is naturally up to the Government to assess the relevancy and usefulness of the analyses conducted and the conclusions produced in the report. And it is up to the Government, doubtless with the continued support of the UNICEF country office, to examine their implications in terms of education policy action.

With a view to providing support for the country in defining a national programme and using the analytical tools designed for that purpose (such as those described in this prototype), it is important for UNICEF and its partners to be able to devote the necessary time and energy to understanding the work accomplished and effectively facilitating research based on the findings obtained in collaboration with the national departments in charge of preschool education in the country.

That being said, the following orientations should probably be considered:

1. The first is that, since preschool activities have a strong and proven impact on children's preparedness for primary entry, and subsequently for their successful performance throughout the primary cycle of education, it is important to extend preschool coverage in the country as much as possible and as quickly as possible, taking account of the financial framework that pertains. In institutional terms, this may entail adjustments aimed at increasing the autonomy of the body in charge of organizing and monitoring the sub-sector;

2. The second is that it is important to take note of the preschool duration that provides optimal added value. This would make it possible to reduce spending per child in preschool, thereby making a positive contribution to the accomplishment of the previous point;

3. The third orientation is that reflection on the future should undoubtedly not be based on revolutionary changes but rather on maintaining a sub-sector in which several different types of preschools co-exist (although probably in proportions different from the ones that exist today, as progress is made with increasing coverage);

4. In follow-up to the first three points, the fourth is that, if the research findings show that the overall performance of the preschool system is quite strong in relative terms in the country, then major progress can (and should) be envisaged. This would involve improvements in terms of content, formal organization and management and monitoring methods; although these three areas apply across the system, they may be more relevant in some types of preschools than in others:

    * Concerning content, reinforcement of content diversity, the cognitive dimension and linguistic activities (particularly in the language of instruction in primary education) should be envisaged;

    * Concerning organizational mechanisms, the focus should be on improving quality while stressing relatively inexpensive aspects and being more careful regarding aspects that, while costly, have little or no confirmed impact on learning. More specifically, this means for instance that (i) it is doubtless possible to slightly increase the pupil-educator ratio without significant loss of quality; (ii) it is not indispensable to ensure costly material conditions to provide quality preschool services; (iii) it is not necessary to have educators with secondary education; but that (iv) it is very important for them to receive training, even relatively short-term training, that is concrete and closely targeted on preschool activities (longer training formulas, which are no doubt somewhat "general" in their current form, are costly and inefficient; however, it is also possible to improve them); and (v) it is important to ensure that preschool institutions have local access to minor equipment and consumables for pupils, as they are needed to diversify their activities and ensure quality learning;

    * Concerning management and monitoring methods, it should be kept in mind that it is not enough to define generic methods for preschool services in these areas; learning takes place in individual preschools at local level. It is therefore important to take steps to ensure that general methods are properly applied to achieve clearly identified learning objectives, and for steps to be taken to check that this is actually implemented in all preschools, and that appropriate decisions are made to deal with any difficulties identified in specific institutions.

5. Finally, since quantitative, qualitative and organizational changes will in any case not be implemented instantaneously, it could be interesting to examine how to intervene on primary school practices, particularly in the first year of study (i) to better accommodate for the variations in children's skills levels and (ii) to offset the most glaring deficiencies identified.

ANNEX 1:
ITEMS BY SKILL AREA

Collectively administered tests: (Group of 5 pupils)

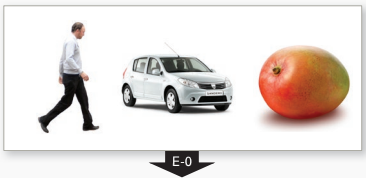
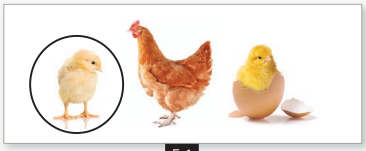
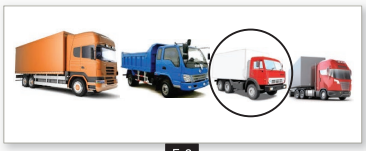
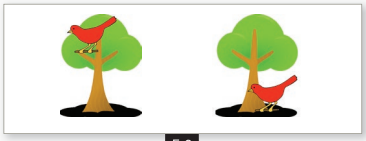
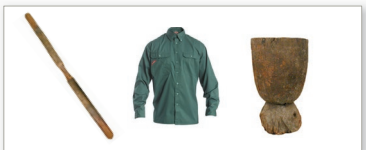
ILLUSTRATION	ADMINISTRATION INSTRUCTIONS	ITEM LENGTH	SCORING SCALE		
0- General instructions					
 E-0	See this illustration: there is a man, a car and a mango. Put your finger on the picture of something you use to travel.				
1- SPACE - TIME					
1.1- Before/After (time)					
 E-1	Look closely at these pictures. - Put your finger on the picture that comes **Before** the picture that is circled.	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
1.2- Before/After (space)					
 E-2	Look closely at these pictures. - Put your finger on the picture that comes **After** the picture that is circled.	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
1.3- Top/Bottom					
 E-3	Look closely at these two pictures. - Put your finger on the bird at the **bottom** of the tree	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
1.4- On/Under					
 E-4	Look closely at this picture. - Put your finger on the object that is **on** the table	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
1.5- Inside/Outside					
 E-5	Look closely at this picture of tomatoes and baskets. - Put your finger on the tomatoes that are **inside** the basket.	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
2- ASSOCIATION					
2.1- What goes together/What is different					
 E-6	Look closely at these pictures. Put your finger on each of the objects that go **together**.	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*

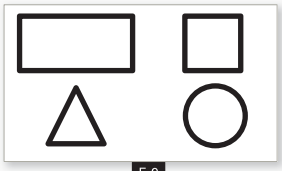
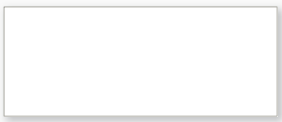
ILLUSTRATION	ADMINISTRATION INSTRUCTIONS	ITEM LENGTH	SCORING SCALE					
2.2- Similitude/ Intrus								
 E-7	Look closely at these objects. Three objects belong to the same category or family and the other one does not. Put your finger on the one that does not go with others (**odds one out**)	3 min.	0	1	9			
			Wrong answer	*Right answer*	*No answer*			
3- GRAPHIC SKILLS								
3.1- Reproducing lines								
 E-8	Look closely at these different lines - Reproduce them	5 min.	0	1	2	3	4	9
			No lines right	*Only one line*	*2 lines*	*3 lines*	*All 4 lines*	*No answer*
3.2- Reproducing geometric shapes								
 E-9	Look closely at these different shapes Reproduis-les	5 min.	0	1	2	3	4	9
			No shapes right	*Only one shape*	*2 shapes*	*3 shapes*	*All 4 shapes right*	*No answer*
3.3- Reproducing characters								
 E-10	Take a good look at these characters - Reproduce them	4 min.	0	1	2	3	4	9
			No characters	*Only one character*	*2 characters*	*3 characters*	*All 4 characters right*	*No answer*
3.4- Drawing of a tree								
	Draw a **tree**	3 min.	0	1	2	9		
			Drawing other than a tree	*Satisfactory*	*Good*	*No answer*		
4- QUANTITY/NUMBER								
4.1- Comparing sizes								
 E-11	Take a good look at these two chairs Put your finger on **the smaller one**	3 min.	0	1	9			
			Wrong answer	*Right answer*	*No answer*			
4.2- Comparing numbers of same-sized objects								
 E-12	Take a good look at these pictures - Put your finger on the picture where there are **the most** tomatoes	3 min.	0	1	9			
			Wrong answer	*Right answer*	*No answer*			
4.3- Comparing numbers of different sized objects								
 E-13	Take a good look at these pictures - Put your finger on the picture where there are **the most** tomatoes	3 min.	0	1	9			
			Wrong answer	*Right answer*	*No answer*			

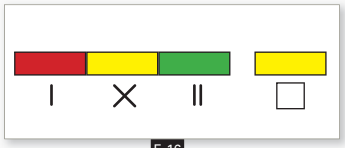
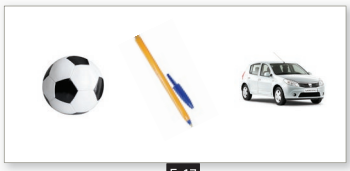
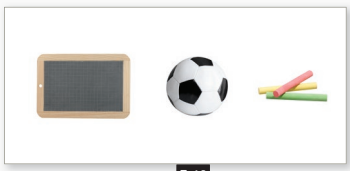
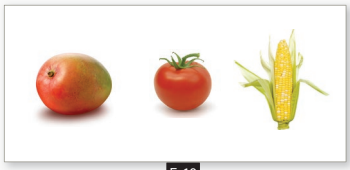
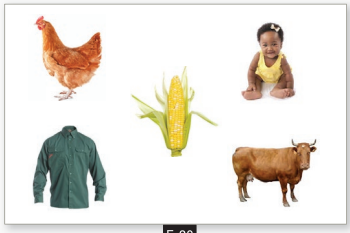
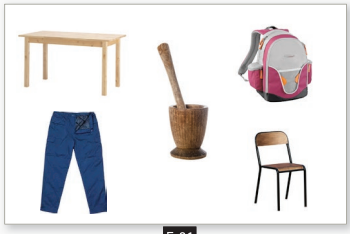
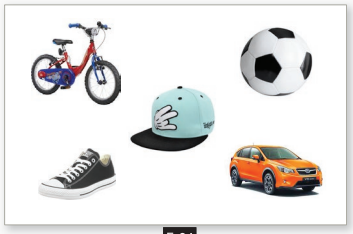
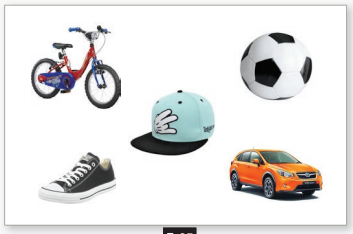
ILLUSTRATION	ADMINISTRATION INSTRUCTIONS	ITEM LENGTH	SCORING SCALE		
5- RYTHM					
5.1 Rhythm/level 1 sequence					
 E-14	Look closely. There is a series of characters in a row. Look at them carefully. On your slate, write the character that should go in the blank space to continue the series (Show pupils the different characters and the blank space)	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
5.2 Rhythm/level 2 sequence					
 E-15	Look carefully, there is a series of characters. Look at them closely. - On your slate, write the character that should go in the blank space to continue the series (Show pupils the different characters and the blank space)	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
5.3 Encoding/transfer					
 E-16	Look at the series of colours in this picture. There is a character that goes with each colour (show pupils). - On your slate, write the character that should go in the blank space (Show the space).	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
6- MEMORIZATION					
6.1- Verbal memorization/expression					
 E-17	Listen carefully to what I am about to say: Koffi played ball and during the break he ate an orange. - Look at the pictures and put your finger on something that I mentioned.	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
6.2- Visual memorization					
 E-18	Look closely at these three objects (slate, pen and chalk) **illustration P-18.** - Put your finger on the object that was in what I showed you.	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
6.3- Visual memorization					
 E-19	Look closely at these three objects (banana, mango and orange) **ill. P-19.** - Put your finger on the object that was in what I showed you.	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*

ILLUSTRATION	ADMINISTRATION INSTRUCTIONS	ITEM LENGTH	SCORING SCALE			
7. LANGUAGE-COMPREHENSION						
7.1 Recognizing a chicken and a shirt in a local language						
 E-20	Take a good look at these pictures Show me the **chicken** Now, show me the **shirt**	3 min.	Chicken	0 *Wrong answer*	1 *Right answer*	9 *No answer*
			Shirt	0 *Wrong answer*	1 *Right answer*	9 *No answer*
7.2 Recognizing a table and a school bag in a local language						
 E-21	Take a good look at these pictures Show me the **table** Now, show me the **school bag**	3 min.	Table	0 *Wrong answer*	1 *Right answer*	9 *No answer*
			School bag	0 *Wrong answer*	1 *Right answer*	9 *No answer*
7.2 Recognizing words in French						
7.2.1 Recognizing the words car and tree						
 E-22	Take a good look at these pictures Show me the **car** Now, show me the **tree**	3 min.	Car	0 *Wrong answer*	1 *Right answer*	9 *No answer*
			Tree	0 *Wrong answer*	1 *Right answer*	9 *No answer*
7.2.2 Recognizing the words table and bottle						
 E-23	Take a good look at these pictures Show me the **table** Now show me the **bottle**	3 min.	Table	0 *Wrong answer*	1 *Right answer*	9 *No answer*
			Bottle	0 *Wrong answer*	1 *Right answer*	9 *No answer*

Individually administered tests

ILLUSTRATION	ADMINISTRATION INSTRUCTIONS	ITEM LENGTH	SCORING SCALE			
1- SPACE-TIME						
1.6- Left/Right						
Ruler and pencil	Look closely at the two objects you are holding. Show me the object in your **right hand**.	2 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*	
6.4- VERBAL MEMORIZATION/EXPRESSION						
"I wash my hand. I eat the paste."	Listen closely to what I am going to say (sentences). Repeat what I just said.	3 min.	0 *No answer*	1 *Yes, at least the beginning*	2 *Both halves of the sentence*	
7. LANGUAGE-COMPREHENSION						
7.5 Following instructions in a local language						
	Listen carefully and do as I say: *"Stand up and raise your arm"*	3 min.	0 *No instructions followed*	1 *One instruction followed*	9 *Both instructions followed*	
7.6 Following instructions in French						
	Listen carefully and do as I say: *"Sit down and cross your arms…"*	3 min.	0 *No instructions followed*	1 *One instruction followed*	9 *Both instructions followed*	
8. LANGUAGE-EXPRESSION						
8.1 Naming human body parts in a local language						
Parts of the human body (head, foot)	Watch me carefully. Name the body parts I point to in the local language: **head and foot**	3 min.	0 *No right answer*	1 *One right answer*	2 *2 right answers*	9 *No answer*
8.2 Naming human body parts in French						
Parts of the human body to be named (mouth, arm)	Watch me carefully. Name the body parts I point to in French: **arm and mouth**	3 min.	0 *No right answer*	1 *One right answer*	2 *2 right answers*	9 *No answer*
8.3 Pupil identity						
First and last name	What's your name?	3 min.	0 *If no answer*	1 *If first or last name*	2 *If first and last name*	

ILLUSTRATION	ADMINISTRATION INSTRUCTIONS	ITEM LENGTH	SCORING SCALE		
8.4 Naming everyday objects in a local language					
 E-24	Tell me the name of the object I am showing you in the local language (**shoe**)	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
8.5 Naming everyday objects in French					
 E-25	Tell me the name of the object I am showing you in French (**car**)	3 min.	0 *Wrong answer*	1 *Right answer*	9 *No answer*
9. BEHAVIOUR/ATTITUDE OF THE PUPIL					
Behaviour and attitude during the test (by the administrator)					
9.1 Following instructions					
	Did the child follow instructions properly?		0 *With difficulty*	1 *More or less*	2 *Satisfactorily*
9.2 Willingness to work					
	Did the child show willingness to work?		0 *With difficulty*	1 *More or less*	2 *Satisfactorily*
Behaviour and attitude at school (by the teacher)					
9.3 Adjustment to the school environment					
	Has the child adapted easily to the school setting?		0 *With difficulty*	1 *More or less*	2 *Satisfactorily*
9.4 Relationships with other pupils					
	Does the child get on well with the other pupils?		0 *With difficulty*	1 *More or less*	2 *Satisfactorily*
9.5 Willingness to complete assigned tasks					
	Is the child motivated in his or her school work?		0 *With difficulty*	1 *More or less*	2 *Satisfactorily*

ANNEX 2 :
PUPIL QUESTIONNAIRE

Date .....
Name of administrator .....

1- Primary school where the survey is conducted

Region	Prefecture	IEPP (Inspectorate)	School :							
			Environment		Type					
			1 Urban	2 Rural	1 PPS	2 PCS	3 EPS	4 SPS	5 Local initiavite	6 MPS

2- Pupil identity
3- First and last names ..... **Identifier :**

Group	Pupil identifier

4- Gender : M (1) ☐ F (2) ☐
Age

1 < 5.5 years	2 5.5 to 6 years	3 6 to 6.5 years	4 6.5 to 7 years	5 > 7 years

Previous status: no preschool (0) ☐ preschool (1) ☐

Form of preschool education

Name of preschool attended:			CODE							
Number of years			Type of preschool							
1	2	3	1-Public	2-Catholic	3-Evangelical	4-Islamic	5-Secular private	6-Local initiative	7-CEPE	8-Koranic

Profession of father/mother/guardian

Person responsible for the child		Activity or Profession								
		1-Farmer	2-Vendor	3-Trader or Artisan	4-Driver	5-Manager	6-Employee or worker	7-Retired	8-Unemployed	9-None
Father	Guardian									
Mother	Guardian									

5- Performance on collectively administered items

SPACE-TIME

Items	1.1 (chick)	1.2 (trucks)	1.3 (bird)	1.4 (table)	1.5 (tomatoes)
Notes					

ASSOCIATION

Items	2.1 (mortar)	2.2 (fruit-car)
Notes		

GRAPHIC SKILLS

Items	3.1 (lines)	3.2 (shapes)	3.3 (characters)	3.4 (tree)
Notes				

QUANTITY/NUMBER

Items	4.1 (chairs)	4.2 (tomatoes)	4.3 (tomatoes)
Notes			

RHYTHMS

Items	5.1 (x/stick)	5.2 (sticks)	5.3 (encoding)
Notes			

MEMORIZATION

Items	6.1 (verbal)	6.2 (visual/in)	6.3 (visual/out)
Notes			

LANGUAGE/COMPREHENSION

Items	7.1.1 (chicken)	7.1.2 (shirt)	7.2.1 (table)	7.2.2 (bag)	7.3.1 (car)	7.3.2 (tree)	7.4.1 (table)	7.4.2 (bottle)
Notes								

6- Performance on individually administered items

SPACE-TIME

Items	1.6 (right)
Notes	

MEMORIZATION

Items	6.4 (sentence)
Notes	

LANGUAGE-COMPREHENSION

Items	7.5 (local)	7.6 (French)
Notes		

LANGUAGE-EXPRESSION

Items	8.1 (local lang.-body)	8.2 (French - body)	8.3 (name)	8.4 (local lang. - objects)	8.5 (French objects)
Notes					

PUPIL BEHAVIOUR/ATTITUDE

Items	9.1 (listening)	9.2 (willing)	9.3 (adjusted)	9.4 (relations)	9.5 (motivated)
Notes					

ANNEX 3 :
RECORD SHEET

SCHOOL RECORD SHEET:.....

COLLECTIVELY ADMINISTERED ITEMS
Group A

Item	Level	Illustration No.	Scoring	Scores of all 5 pupils (A1-A5)				
				A1	A2	A3	A4	A5
Space-Time	**1.1**	1 (chick)	0-1-9					
	1.2	2 (trucks)	0-1-9					
	1.3	3 (bird)	0-1-9					
	1.4	4 (table)	0-1-9					
	1.5	5 (tomatoes)	0-1-9					
Association	**2.1**	6 (mortar)	0-1-9					
	2.2	7 (fruit-car)	0-1-9					
Graphic Skills	**3.1**	8 (lines)	0-1-2-3-4-9					
	3.2	9 (shapes)	0-1-2-3-4-9					
	3.3	10 (characters)	0-1-2-3-4-9					
	3.4	(tree)	0-1-2-9					
Quantity-Number	**4.1**	11 (chairs)	0-1-9					
	4.2	12 (tomatoes)	0-1-9					
	4.3	13 (tomatoes)	0-1-9					
Rhythms	**5.1**	14 (x/stick)	0-1-9					
	5.2	15 (sticks)	0-1-9					
	5.3	16 (encoding)	0-1-9					
Memorization	**6.1**	17 (verbal)	0-1-9					
	6.2	18 P-E (visual/in)	0-1-9					
	6.3	19 P-E (visual/out)	0-1-9					
Language-Comprehension	**7.1.1**	20 (chicken)	0-1-9					
	7.1.2	20 (shirt)	0-1-9					
	7.2.1	21 (table)	0-1-9					
	7.2.2	21 (bag)	0-1-9					
	7.3.1	22 (car)	0-1-9					
	7.3.2	22 (tree)	0-1-9					
	7.4.1	23 (table)	0-1-9					
	7.4.2	23 (bottle)	0-1-9					

NB:
Action to be carried out (no illustrations)

SCHOOL RECORD SHEET:.....

COLLECTIVELY ADMINISTERED ITEMS
Group B

Item	Level	Illustration No.	Scoring	Scores of all 5 pupils (B1-B5)				
				B1	B2	B3	B4	B5
Space-Time	**1.1**	1 (chick)	0-1-9					
	1.2	2 (trucks)	0-1-9					
	1.3	3 (bird)	0-1-9					
	1.4	4 (table)	0-1-9					
	1.5	5 (tomatoes)	0-1-9					
Association	**2.1**	6 (mortar)	0-1-9					
	2.2	7 (fruit-car)	0-1-9					
Graphic Skills	**3.1**	8 (lines)	0-1-2-3-4-9					
	3.2	9 (shapes)	0-1-2-3-4-9					
	3.3	10 (characters)	0-1-2-3-4-9					
	3.4	(tree)	0-1-2-9					
Quantity-Number	**4.1**	11 (chairs)	0-1-9					
	4.2	12 (tomatoes)	0-1-9					
	4.3	13 (tomatoes)	0-1-9					
Rythms	**5.1**	14 (x/stick)	0-1-9					
	5.2	15 (sticks)	0-1-9					
	5.3	16 (encoding)	0-1-9					
Memorization	**6.1**	17 (verbal)	0-1-9					
	6.2	18 P-E (visual/in)	0-1-9					
	6.3	19 P-E (visual/out)	0-1-9					
Language-Comprehension	**7.1.1**	20 (chicken)	0-1-9					
	7.1.2	20 (shirt)	0-1-9					
	7.2.1	21 (table)	0-1-9					
	7.2.2	21 (bag)	0-1-9					
	7.3.1	22 (car)	0-1-9					
	7.3.2	22 (tree)	0-1-9					
	7.4.1	23 (table)	0-1-9					
	7.4.2	23 (bottle)	0-1-9					

NB:
Action to be carried out (no illustrations)

ANNEX 4 :
ADMINISTRATOR'S GUIDE

I. General instructions

1. List of schools for each administrator and completion of scheduled visits;

2. Warn school inspectors of your visit (they will have received notification of the survey from the Ministry of Education) referring to the mission statement;

3. Prepare for the survey in the school with assistance from the Principal
   - Present the mission statement;
   - Choose pupils to take the tests;
   - Selection criteria:
     - 8 pupils who have attended the preschool identified for this school;
     - 2 pupils who have not attended preschool at all;
     - If you cannot find eight, then take all those who have the desired characteristic and make up the difference with children who have attended another type of preschool than the one selected for this school;
     - Try to have the same number of boys and girls in so far as possible.
   - Form two groups of five pupils.

4. Fill in individual assessment forms for all ten pupils (date, name of administrator, educational region and pupil identification) with the school principal;
   - For the children coming from the identified preschools, indicate the code provided with the list of schools.

II. Instructions for the administration of the collective items

1. Fill in the top part of the record sheet with the name of the school and the group with which the children are identified in their individual forms;

2. Arrange the children so that they are not too close together, but can still be watched together (lined up one in front of the other in an end row or as suits the circumstances);

3. For tests requiring local language use, the administrator must speak to the child in the most common mother tongue in the environment and speak as simply as possible;

4. At the beginning of each collectively administered test, the administrator must ensure that all of the pupils have the same working materials (slate and chalk);

5. Give the general instructions for item 0. You see this illustration, there is a man, a car and a mango. Put your finger on the picture of something you can use to travel. Check to ensure that each of the children has properly understood and provide additional explanations if necessary;

6. Administer the collective test items (group of 5) using a local language and/or French, item by item, in two blocks of time (block 1 items 1.1 to 4.3; block 2 items 5.1 to 7.2.2);

7. At the end of each item, mark the score using the scale shown on the right, and enter each child's mark on the record sheet at the line corresponding to the item;

8. Additional scoring information
   - Item 3.1 (reproducing lines)
     - Should be vertical;
     - Should be downward diagonal;
     - Should be horizontal;
     - Should be upward diagonal.

   - Item 3.2 (reproducing geometric shapes)
     - Rectangle: (more or less) closed shape with (more or less) parallel sides, and longer than it is wide;
     - Square: (more or less) closed shape with (more or less) parallel sides that are (more or less) equal in length and width;
     - riangle: (more or less) closed shape with three sides;
     - Circle: (more or less) rounded and (more or less) closed shape.

   - Item 3.3 (reproducing characters)
     - a: (more or less) closed shape with a vertical line on the right;
     - c: shape open on the right side;
     - p: (more or less) closed shape with a vertical line running down on the left;
     - 4: shape with three lines that are (more or less) joined – diagonal / horizontal / vertical.

   - Item 3.4 (drawing of a tree)
     - Successfully completed: trunk with branches/leaves in upper part;
     - Partially completed: trunk with something else on upper part.

III- Instructions for administering individual test items

1. Administer the individual test items to the first group of five pupils;

2. Score for behaviour and ask the teacher for his or her contribution.

ANNEX 5 :
PRESCHOOL PRINCIPAL QUESTIONNAIRE (EXAMPLE TAKEN FROM NIGER)

Name of the institution: ..... **PRESCHOOL CODE:**

Region: .....

Department: .....

District: .....

Commune: .....

Type of preschool:

☐ Traditional community-based ☐ Koranic community-based ☐ Public ☐ Private

Resources

1. State support

Hygiene kits	☐ No	☐ Yes	If yes, operational?	☐ No	☐ Yes
Educational kits	☐ No	☐ Yes	If yes, operational?	☐ No	☐ Yes

2. Community/Parents' support

- Financial resources marshalled (CFA Francs for 2013/14 school year)

- Sources
  - . School fees ..... Fcfa
  - . Other resources (local association, PTA, AME) ..... Fcfa
- Uses
  - . Staff remuneration ..... Fcfa
  - . Classroom building/maintenance ..... Fcfa
  - . Small items of teaching equipment/materials and consumables ..... Fcfa
  - . Running the canteen/providing snacks ..... Fcfa

- Resources in kind (estimates in CFA Francs equivalent for 2013/14 school year)
  - . Staff remuneration ..... Fcfa
  - . Classroom building/maintenance ..... Fcfa
  - . Running the canteen/providing snacks ..... Fcfa

3. Partners (for overhead, consumables and minor items of equipment/materials)

Unicef	☐ No	☐ Yes	Nature of support:.....	Estimate en Fcfa
NGOs	☐ No	☐ Yes	Nature of support:.....	Estimate en Fcfa
Other donors	☐ No	☐ Yes	Nature of support:.....	Estimate en Fcfa

Types of contents taught

1. What national language is used in the school?

☐ Fulfulde ☐ Arabic ☐ Hausa ☐ Zarma ☐ Kanuri ☐ Tebu ☐ Tamasheq ☐ Gourmantche

2. Amount of interaction between teacher and pupil in French in the final year of preschool

☐ None ☐ very little (less than 15%) ☐ some (15-30%)

☐ average (30-50%) ☐ a lot (more than 50%)

3. What percentage of pupils' time in their final year is devoted to games/socialization activities?

☐ Very little (less than 15%) ☐ a little (15-30%)

☐ moderate (30-50%) ☐ a lot (more than 50%)

4. How highly do you rate the importance of activities aimed at children's cognitive development (pre-literacy, graphic skills, concepts of number and quantity, language, etc.)?

☐ Very low (less than 15%) ☐ low (15-30%)

☐ moderate (30-50%) ☐ high (above 50%)

5. Do you think it is important to build discipline in children's behaviour?

☐ Not important ☐ Somewhat important ☐ Quite important ☐ Very important

Regularity of service

1. Were preschool activities interrupted during the 2013/2014 school year?

☐ Never ☐ Less than one month ☐ One to two months ☐ More than 2 months

If classes were interrupted, what was the reason?.....

2. During the 2013-14 school year, were monitors/educators paid on a regular basis?

☐ Yes, regularly ☐ Delay of < 2 months ☐ Delay of > 2 months

3. During the 2013/2014 school year, did pupils attend regularly?

☐ High attendance ☐ Some attendance issues ☐ Serious attendance issues

United Nation Children's Fund (UNICEF)
West and Central Africa Regional Office
Dakar, Senegal

For more information, visit our website:
www.unicef.org

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