

Analysis of the Factors that Explain the Non-Completion of the Curriculum: A Study of the Teaching Time in Primary Schools in Madagascar

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Abstract

The present study has been carried out for grade 2 schools in the CISCO Toamasina 2, one of the weakest CISCOs, exposed to problems related to the climate and agriculture. The investigation techniques used were questionnaires, interviews, class observations and the consultation of archive documents in the schools. These have revealed that in these areas, teaching time is seriously curtailed; this is mainly caused by the repeated and extended absences of both teachers and pupils, due to long distances that separate the school from the nearest town, to climatic hazards, or to various family obligations. These unfortunate circumstances all contribute to the non-completion of the curriculum and to poor school results. These problems may be overcome through actions by the Ministry through the sensitization of parents, the improvement of road infrastructure, the training of teachers in class management, and the readjustment of the school calendar. But in return, that will require a moral commitment on the part of parents to send their children to school, whatever the season. This study has also revealed many other problems such as those related to gender, which cause girls to be more often absent than boys during the school year, or those related to teachers' in service training which does not always address the problems of everyone concerned.

Introduction

This study has been inspired by the Malagasy Ministry of Education, in its attempt to improve results, first in primary schools, and later, at all education levels.

Since 2003, Madagascar has elected to implement Education For All, thus enabling all Malagasy children to have access to quality education. To reach this objective, actions

have been taken by the Ministry of Education to help parents provide their children with education by eliminating overheads and subscription fee payment, providing satchels, pencil cases and school uniforms. In order to improve school results and avoid early dropouts, the Ministry of Education launched an educational reform in 2003, namely by allowing pupils to automatically move up from Grade 1 to Grade 2 and from Grade 4 to Grade 5. The Competency based Approach (APC) was launched in order to enable pupils to use the knowledge they have acquired in resolving problems in their daily lives. School textbooks and other APC tools are now available in all primary schools, to be used as support materials to help pupils learn and to assist teachers with the implementation and use of this new approach.

In addition, in order to resolve the problem of lack of teachers both in terms of number and skills, new teachers have been recruited and training provided concerning the Competency based Approach, the management of multi-grade and/or large classes. Other sessions were also organized to reinforce linguistic competence and develop class management skills. In order to alleviate parents' financial burden and to improve teachers' quality of life, the State has decided to supplement a small subsidy to the salary received by the teachers from the pupils' parents.

The actions carried out by the Ministry of Education have borne fruits and permitted:

- The increase in the number of operational schools from 15412 in 2003 to 17640 in 2006,
- The improvement of the enrolment rate from 70.1% in 2001 to 98.5% in 2005,
- The increase of the completion rate from 47% to 57% between 2003 and 2006,
- The decrease of the repetition rate from 30% to 17% between 2003 and 2006,
- The increase in the success rate at the CEPE (*Certificat des Etudes Primaires et Elementaires*: Primary School Leaving Certificate) national exam from 49.1% to 64.5% between 2002 and 2005.

However, those results remain unsatisfactory for, despite the efforts undertaken between 2003 and 2006:

- In grades 2 and 3, where moving up to the next grade is not automatic, the repetition rate has remained stable, hovering around 28%. The dropout rate on the other hand has increased from 8% to 18%. Those figures are linked because a pupil confronted with social or family problems is more likely to leave school in case they may have to repeat a class.
- The disparities between the results of different CISCOS (*Circonscription Scolaire*: School District) at the CEPE national exam are still there.

To account for the poor results at the CEPE exam, teachers often complain about the gaps accumulated over the years by students who had to miss too many classes. These gaps may result from the non-completion of the school curriculum. The present study has been carried out to enable the Ministry of Education to have an objective view of the factors that affect the completion of the curriculum.

The drastic reduction of teaching time is one of the most important causes of the

non completion of curriculum quoted by researchers (Crahay 2003), and it is linked to teachers' management abilities. Thus, some notions related to the concept of "time" need to be clarified.

If school time is equated with time spent at school, including the time spent in the yard during breaks, teaching time is the time spent in the classroom, allocated to the pupils for learning. This time is generally inferior to the one figuring in the school syllabus, as maintained by the study carried out in Peru by Homberger (1977). In Peru, half of the time actually spent in the classroom is inferior to school time; and teaching time amounts to only 20% of the time spent at school. According to Sacré (1992), in the French Community of Belgium, pupils are provided with 414 to 572 hours of effective teaching in the investigated classes, instead of the 849 hours and 20 minutes indicated in the curriculum of 1985.

To Caroll (1975), the opportunity to learn refers to the quantity of time granted to the student to carry out a given learning. That gets him to distinguish 3 different elements of the teaching time:

- the time allocated to the pupil for learning
- the time dedicated to the class management (filling the class report notebook, the attendance record books,...)
- the lulls

A competent teacher manages his class so those lulls, as well as the time dedicated to class management last less if compared to time allocated to teaching. On the other hand, it is a matter of common knowledge that everyone can succeed in learning, if he or she devotes enough time to it. The time necessary to learn depends on the teaching done by the teacher, and also on the pupil's aptitude and competence. Pupil's behavior makes him or her also take full advantage or not of this learning time: in particular, does he or she actively take part in the tasks, does it take him or her a long time before he or she is ready to learn (looking for copybooks in their bags, sharpening pencils...) or does his or her environment disturb him or her...?

In this study:

- teaching time is to be understood as the time during which the teacher is actually teaching in class. It can be different from the officially allocated time. It will be regarded as the major part of the time allocated to pupils for learning.
- learning time is the time necessary for the pupil to succeed in his or her learning. It depends on the student (behavior in the classroom, aptitude and competence) and on his or her environment (teacher, society, ...)

Both concepts are linked and they are both equally important for if the teacher misses a session, and is not teaching his or her pupils in his or her classroom, the teaching time decreases. If there is no catch up session, the duration of pupils' learning time in the classroom also decreases, since the start and the end of the school year have already been set. But learning can be done not only in the classroom but also at other times; added to that is the fact that even in the classroom, pupils do not always learn. Furthermore, the

precise measuring of learning time needs continuous and personalized observation of each pupil. That is why, because of material and temporal constraints, this study will first consider teaching time. A more detailed study may be carried out later, taking the pupils' learning time into account.

Besides, some research studies carried out all over the world have shown that teaching time has a positive impact on pupils' performance (Caroll 1975; Borg 1980; Karweit 1976; UNESCO 2005), and that there is negative correlation between teachers or pupils' absence and school results (Bond & Dyksra 1967; Harris & Server 1966; Harris et al. 1968, quoted by Wiley & Harnischfeger 1974). In the case of Madagascar, the study carried out during the editing of the EFA plan in May 2005 shows that actual teaching time in some areas was almost half the officially recommended one. So, the time allocated to teaching is a strong factor that teachers and school administrators can use to increase pupils' learning (Wiley 1973). That is why this study will mainly be centered on teaching time.

Indeed, the instructions about the time allocated to each subject are in the curriculum and teachers must draw and post their schedule on the classroom walls. Stating that teaching time is insufficient amounts to saying that the teacher has problems with time management, which may be attributable to his or her working conditions, to the lack of didactic materials and to overcrowded and multi-grade classes. But unexpected cases may also occur, especially in areas exposed to seasonal climatic hazards or in communities living according to the agricultural calendar. At certain periods of the year, cyclones and rain are causing floods, ruining roads, which results in continuous or repeated absences of both teachers and pupils.

On the other hand, during harvest time or the cultivation period, parents have to decide whether to send their children to school or not. This decision is difficult for parents who, in rural areas have most of the time only primary education level. This does not enable them to objectively evaluate the link between the time spent in the classroom and their children's school results. Indeed, the harvesting of export crop is a lucrative activity that can ensure the welfare of the entire family during the coming year. Therefore, it is a very important activity for parents whose main concern is to provide their family with decent living. So, parents are often tempted to take their children with them to help with the work, or just in order not to leave them alone at noon, and consequently, these children miss class.

Now, a pupil that regularly misses a class does not benefit from the same teaching time as others. In cases where several pupils are found missing at the same time, the class cannot move forward with the same rhythm. The teacher is faced with a dilemma: if he or she repeats lessons, he or she will not have enough time to complete the curriculum, thus accumulating more gaps for the following year; if he or she moves on with the curriculum without taking into account those pupils who are missing, it may lead to poor school results in spite of the completion of the curriculum.

On the other hand, in order to complete the syllabus, the teacher must make good

use of the available time at his or her disposal. In isolated areas, salary collection is done in another town or village within the CISCO. This usually requires a trip that may last a few days and add up to reach a total of up to one month a year for some teachers. But other unexpected events may occur: for example, the teacher or a member of his or her family is ill, he or she also has to go to a Health Center that is located in town too, which leads to more days of additional absences, affecting the implementation of their original schedule. Moreover, most teachers do not have the required abilities to efficiently manage time, the didactic materials, and the organization of multi-grade and/or large classes in order to compensate for the gaps accumulated by pupils over the years.

Thus, many questions may be asked: what are the factors that can affect teaching time? Are the teachers, despite the different problems they have to face able to manage the time at their disposal efficiently? What is the impact of the teaching time on the completion of the curriculum and on school results? Do the absences affect boys and girls in the same way? Have follow up sessions been arranged to prove to these teachers that the community is interested in their work and is attentive to their needs? Do the trainings offered to teachers enable them to resolve their problems? What could the Ministry of Education do to optimize teaching time while taking the social and economic reality and the priorities of each one into account? Indeed, the efforts undertaken, as well as the educational system reform will be in vain if the teaching time remains incomplete and does not allow teachers to complete the syllabus.

The following hypotheses have been considered during this research:

-First hypothesis: Teachers and students' absences constitute one of the main factors causing reduction of teaching time.

-Second hypothesis: The isolation of schools, as well as seasonal factors, are the main factors of school absences preventing teachers from completing the curriculum, resulting in poor school results.

-Third hypothesis: Teachers competence and their particular working conditions (supervision, trainings, follow up...) do not allow them to solve their problems.

Because of the difficulty of carrying out extensive research covering the entire island, this study has been centered more particularly on teaching time in the primary schools of the CISCO of Toamasina 2, one of those CISCOs affected by seasonal problems related to the climate and the agriculture, that may lead teachers and pupils to interrupt attendance several times during the year.

This document presents the research methodology, the exploitation of the results, as well as discussions about some parts of the results.

Methodology

This part describes the target population and presents the research techniques adopted.

The target population

Before beginning the research, the targeted CISCO has been selected among those whose completion rate and CEPE results are unsatisfactory. This CISCO also experiences seasonal problems related to climate or agriculture. The level of the classes observed has been determined in order to isolate the influence of the variable “learning time”.

(1) Selection of the CISCO Toamasina 2

Educationally, Madagascar is divided into 111 School District or CISCOS. These CISCOS have been classified by the Ministry of Education into 4 groups according to their completion rate: the 29 weakest CISCOS, the 21 weak CISCOS, among which the CISCO Toamasina 2, the 17 CISCOS with average performance, and the best 44 CISCOS. The success rate at the CEPE exam in the CISCO Toamasina 2 remained under the national rate until 2006, although a “significant jump” from 47.90 to 81.42% was observed in 2007 (Figure 1). This spectacular improvement may be attributed to the initiative of the CISCO, which organized mock exams during the year.

This CISCO, regarded as weak, has interested the research team in view of the fact that it is located in a coastal area crisscrossed by more or less important waterways, with a wide extent of green forests. Thus, it is endowed with a humid climate, favourable to litchi production, a fruit whose exportation has been an important source of the country’s foreign currency for several years. Most of the inhabitants are farmers and devote themselves to the cultivation of this crop, which is a non negligible source of income.

On the other hand, this area is one of those that are the most exposed to climatic hazards: it is not immune from cyclones and other climate abuse that rage each year in the Indian Ocean. During the cyclone period, floods and landslides are frequent; roads are damaged, making all moves inside the region difficult. Inhabitants have much to do to look after their fragile “falafa”-made houses. Work that parents, as well as teachers, carry out in the fields and the periodic bad weather constantly expose this CISCO to disruption when it comes to teaching time, and consequently, has made it interesting and particularly relevant for this research.

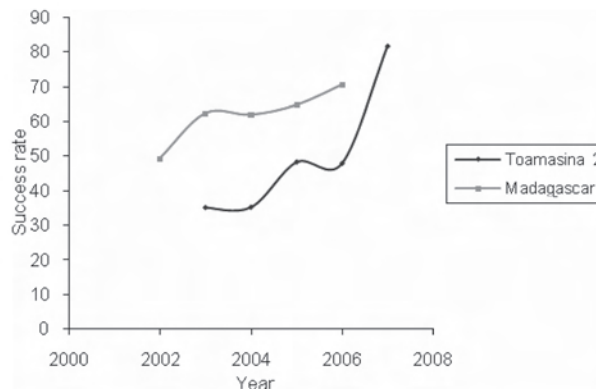


Figure 1. CEPE Results from 2003 to 2007

(2) Selection of the grade 2 as the target population:

In General, the repetition rate is high in grades 2, 3 and 5 in Madagascar (Table 1). In Toamasina 2, it reaches 35.1% in grade 2, 35.0% in grade 3, and 30.9% in grade 5, that is much higher than the national average. Furthermore, the drop-out rate is about 19% in grade 2 and grade 3. But two important reasons have justified the choice of grade 2 for our study:

- the important change from grade 2 to grade 3, when it comes to language. Teaching is entirely in Malagasy until grade 2 and changes into French in grade 3. This could have skewed the results in grade 3.
- the fact that in grade 5, the gaps accumulated during the whole of primary education may affect the school results.

In order to avoid any amalgamation of the language variable with “teaching time” and “accumulated gaps” in our study, grade 2 has been selected as the target level all along this research because the language used in this grade is Malagasy and the accumulated gaps of pupils do not concern the first two years of primary education.

Table 1. Situation of Primary Education in CISCO Toamasina 2

Flow	CP1 (Grade1)		CP2 (Grade 2)		CE (Grade 3)		CM1 (Grade 4)		CM2 (Grade 5)	
	Toam 2	M/car	Toam 2	M/car	Toam 2	M/car	Toam 2	M/car	Toam 2	M/car
Promotion	88.0	63	45.7	53.8	45.6	60	84.2	73.4		
Repetition	0.0	12.5	35.1	27.8	35.0	28.4	0.0	8.2	30.9	22.1
Drop out	12.0	24.5	19.2	18.4	19.4	11.6	15.8	18.4		

Research techniques

Among the several existing research techniques, four have been selected by the team: questionnaires administration, semi-directive interviews, observation of some classes and exploitation of some schools’ archives during a comparative study.

(1) The questionnaires

The CISCO of Toamasina 2 is subdivided into 17 administrative and pedagogical areas; each of them is supervised by a chief of ZAP (Administrative and pedagogical subdivision of the CISCO). Each area comprises about fifteen primary schools, with at least one grade 2 teacher in each school. In order to obtain the maximum information, and because of lack of time to organize an interview with each teacher and every parent within the CISCO, questionnaires have been targeted primarily to the parents of pupils identified to have missed school most frequently and to the teachers of each ZAP.

- the questionnaires were given to 260 teachers to determine the omen variables: teachers’ age, gender, academic qualification that can affect time management, as well as the frequency, duration and the causes of their lateness and absence and those of their pupils. Besides, teachers were asked to predict the part of the curriculum they would complete in each subject and the reasons that could

prevent them from finishing it if necessary. Since these ZAPs are most of the time difficult to access, the team took advantage of a meeting with ZAP chiefs in the CISCO to discuss the questionnaires with them. They later administered them to teachers in their respective areas during meetings organized to that end until the second week of June 2007, that is to say two weeks before the end of the school year and the beginning of the long holidays. The results of these questionnaires can thus be considered as end of the year results.

- the questionnaires for parents were handed to ZAP chiefs in order to crosscheck information thus obtained with teachers statements concerning the causes and frequency of teachers or pupils' absences during the year. Teachers were asked to identify the pupils most often found missing in their classes during the school year (criteria left to their discretion) and 125 questionnaires were filled. Then, the ZAP chiefs convened the parents to give them the questionnaires. Except for the information about teachers' and pupils' lateness and absence, these questionnaires enabled us to collect data concerning the education level of these parents, their age, and their work..

In order to adopt a more appropriate approach to the situation, and to get an insight into the problems of primary schools in the selected CISCO, class observations were scheduled in schools located along RN2 the National Road that links the capital Antananarivo to the province of Toamasina.

(2) Class observation

The researchers used common means of transportation to go to these schools from Toamasina in order to know more about the transportation situation in this area. The class observations effected in 5 classes of the 3 most accessible schools in the area were intended to help the team analyze the way the teacher manages the teaching time and note down the absences of grade 2 pupils and teachers in these schools.

(3) Interviews

To confirm the answers obtained from the questionnaires and to get further information concerning other problems that were not mentioned in those questionnaires, the research team carried out semi-directive interviews to find out about the problems of the CISCO, on the whole, and in particular the absences of pupils and teachers that affect the teaching time. These interviews concerned all the 17 chiefs of ZAP, 12 headmasters and 35 teachers of the visited schools and 23 parents who lived near the schools observed.

(4) Exploitation of schools' archive documents

Questionnaires and interviews can be subjective in some cases, because some people tend not to express themselves freely, out of kindness. Therefore, it is necessary to consult impersonal documents such as schools archives to confirm results: logbooks, attendance record books, and class report notebooks during the school year 2006-2007. The exploitation of these archives has made it possible to highlight teachers and pupils' absences during the school year, the chapters and lessons the teacher covered during the year, as well as pupils' marks during the same period. Indeed, checking whether the

curriculum has been complete or not is important in order to establish a link between teaching time and school results.

In order to reduce to the minimum the variables that could affect the results, the exploitation of these archives was carried out during a comparative study of two schools in two neighboring villages on the RN2 National Road, that is to say, with more or less the same degree of ease of access. The classes observed had almost the same number of pupils (40), which is lower than the average of the CISCO (48), so as to avoid any misleading influence resulting from class overcrowding. The teachers have approximately the same qualifications and followed the same pre-service and in-service trainings. They are women of the same age, having the same diploma. No supervision is done by the headmasters in both schools, and archive documents are kept by the teachers themselves, at home. However, the school located at Ambodibonara, where the ZAP chief lives has better results in grade 2 if compared to the school at Ampasimbola.

Therefore, the analysis has been focused on the absence of the 2 concerned teachers and the results of pupils -girls and boys- in the two classes, the parts of the syllabus that were covered and the results at the end of the year and of each bimonthly period, in order to establish a link between “teaching time,” “completion of the curriculum” and “school results”.

Exploitation of the Fieldwork Results

Here is a synthesis of the exploitation of results of the questionnaires about:

- the omen variables of the CISCO Toamasina 2
- the factors that directly affect the teaching time: lateness and absence of both pupils and teachers
- the completion of the curriculum

These results will be added to those from the interviews, class observations and comparative study to permit the selection of the appropriate solutions.

Omen variables

These variables concern teachers and parents of absentee students.

(1) *The teachers in the CISCO Toamasina 2*

The investigation involved 260 teachers in grade 2 in the CISCO Toamasina 2. Most of them (62.3%) are women. They are on average 34.26 years old (from 19 to 56). They generally live near the school (48.85%) or on the school premises (36.15%). One teacher in three is a public employee, the others have been recruited by the parent-teacher association (FRAM teachers), but they earn subsidies from the government. On average, these teachers have already worked for 6.11 years (between 1 month and 17 years).

The highest academic diploma held by most of them is the BEPC (*Brevet Élémentaire du Premier Cycle*: (End of Lower Secondary Diploma) a degree that is obtained at the end of secondary school (grade 9); 28.85% of them own a pedagogic

diploma, a CAE (*Certificat d'Aptitude à l'Enseignement*: Teaching license for Primary Schools), that qualifies them to teach in primary schools.

The teachers of CISCO Toamasina 2 have attended trainings in Competency based Approach (followed by 78.85% of teachers), teaching techniques in multi-grade classes (followed by 86.92% of teachers), and teaching in large classes (followed by 61.54% of teachers). Many of the classes are multi-grade (43.46%) with a large number of pupils (this can be as high as 70 students), with 7 year old pupils huddled together on uncomfortable seats. If the teacher often has some pieces of geometry equipment at his or her disposal for the blackboard (72.31% have a ruler, 58.46% a set square, and 60.38% a compass) and school textbooks (25.77% have Malagasy books, 81.54% Mathematics books, 87.31% French books). One teacher in two does not have any chair (55.38%) and fewer still own a desk (41.15%).

Most teachers are young, and live on the school premises; but their academic level is low, and their working conditions are harsh (poor infrastructure, insufficient material, overcrowded and multi-grade classes). That explains their difficulties when it comes to class and time management. This has been observed during class observations. Most teachers are interested in in-service trainings, which they consider as really useful (74.62%), thus showing their desire to improve.

(2) Parents of absentee pupils

This questionnaire has been filled in by 125 parents of grade 2 pupils, who are often missing, as stated by their teachers. Most parents are farmers (80%), they generally earn a small income and are at the mercy of climatic hazards and have to synchronize their lives in rhythm with seasonal agricultural activities. Nonetheless, parents in this area contribute funding to the school: they take part in the payment of the FRAM (*Fikambanan'ny Ray Amandrenin'ny Mpianatra*: Parents' Association) teachers' salary (0.27 USD per month per teacher), and in the construction and the provision of furniture for the school. These contributions constitute extra burdens on the parents, according to the interviews with ZAP chiefs and school headmasters, but they are generally not sufficient: they scarcely cover the minimal needs of FRAM teachers (Teachers are recruited locally by parents' associations at the beginning, but later, their salary have been paid by state subsidies.), and cannot pay for the costs related to infrastructure.

In addition, parents have a very weak academic level, since half of them have not gone beyond the third year of primary education (grade 3). This level, combined with the "moramora" culture prevents them from establishing the link between the repeated lateness and absences, the teaching time and their children's school results. "Moramora" is a Malagasy word which means "do not worry, move slowly..." Yet, during interviews with parents, nearly all of them stated that they really wished to see their children succeed in their studies as far as possible.

Factors affecting the teaching time

Among the factors directly affecting teaching time, there are teachers and pupils'

lateness and absence.

(1) Lateness

The accumulation of teachers and pupils' delayed arrivals and late starts may eventually lead to the reduction of effective teaching time. Therefore, the questionnaires submitted to teachers and parents were separated, but their results tally with each other. According to most teachers (93.36%), very few pupils are late on the whole. But during the rainy periods, when floods are frequent and roads are bad, some students can arrive at school two hours late. On the other hand, teachers begin their classes ten minutes after the normal starting time, after filling up the class report notebook and the attendance record book. Therefore, normally, lateness does not really affect teaching time in the CISCO.

(2) Absence

Teachers and pupils' absence may also have an impact on teaching time.

-Pupils' absence

During our fieldwork (June 2007), very few pupils were absent. But while checking class report notebooks, we observed that from December 2006 to March 2007, in a class of 55 pupils, from 12 to 21 pupils simultaneously missed class (from 22 to 38%). This confirms the results of the questionnaires (Figure 2). These absences are generally due to:

- factors related to climate: floods mentioned by 50.38% of teachers, which make roads impassable;
- social and economic factors, such as famine, mentioned by 23.08% of teachers. Children do not go to school because they are hungry;
- agricultural calendar: children help their parents in the fields. During cash crops harvesting periods, absences are significant – litchi collection in November (6.92%), and rice harvesting in June (5.77%). Furthermore, when parents move away to look for new fields, they take their children with them regardless of whether or not there is a school near those fields (nomadism has been mentioned by 7.69% of teachers).

The longest absences are due to famine (60 days in extreme cases) and fieldwork.

-Teachers' absence

On average, a teacher is absent for 14.68 days per year, according to the results of our survey. The main reasons are:

- the remoteness of the school from the town: the teacher has to collect his or her salary in town (51.15%), deal with administrative paperwork (35.77%), go with a member of his family to a Health Centre for medical consultation in the event of disease (30.38%)
- the bad weather that leads to the closing of all schools (30.77%).

Salary collection is the most frequent cause of teachers' absence. Its duration range from 1 day per month for those who work in the vicinity of the CISCO to 10 days per month for those working in isolated schools. Besides, during class observations, the researchers observed difficulties when it comes to transportation, even for villages along the National Road. After absences, teachers organize catch up sessions in 57.27% of cases,

keeping the pupils one hour more each day and/or asking them to come back to school on Saturdays or ask a colleague to fill in for them during their absence (35.45%).

Therefore, teaching time has been found to be actually insufficient in the CISCO Toamasina 2. This is due to teachers and pupils' absences. Yet, the main factors of absence are parents' organization, the isolation of the schools and the seasonal factors, which are beyond teachers and parents control, but could to a certain extent be solved by the authorities within the and as part of the government's struggle against poverty.

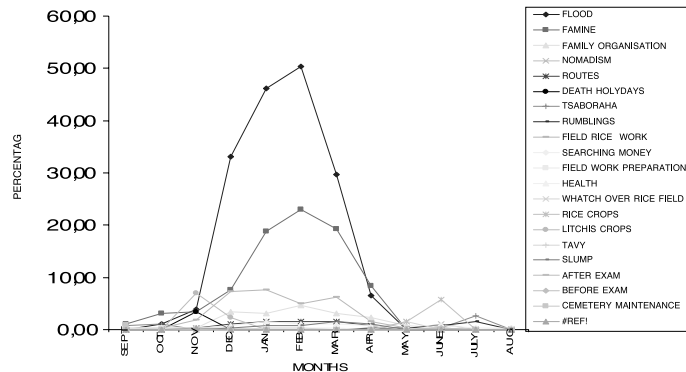


Figure 2. Reasons and Duration of Teachers' Absence

Completion of the curriculum

74.23% of teachers stated they were able to complete the syllabus, it means that to them, the syllabus is neither too difficult nor very long. However, from about the 2nd week of June (just before the final evaluation), only 35.77% of teachers actually had completed it. The main reason the teachers mentioned was lack of time. This concerned all subjects. In addition, teachers complained that the Maths and French programs were too long and too difficult, and the didactic material needed for the teaching of Mathematics were scarce (Figure 3). Generally, teachers did not complete the curriculum, primarily because of lack of teaching time.

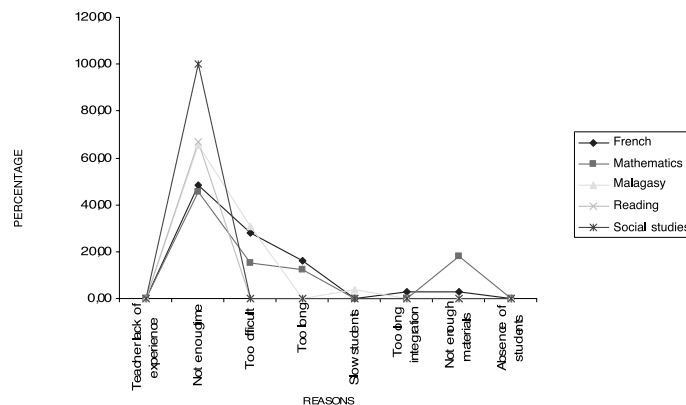


Figure 3. Reasons of the Non-Completion of the Syllabus per Subject

Discussion

The comparative study has permitted to highlight the links between pupils' absence and school results and to initiate discussions on gender issues, training and follow up problems.

Links between pupils' absence and school results

The comparative study has also permitted to observe teachers and pupils' absence in the two concerned schools with comparable conditions. The teacher in Ambodibonara is less often absent and carries out catch up sessions. At the end of the year, she has almost entirely completed the curriculum, whereas the teacher in Ampasimbola, whose logbook ends in March, has not. At the end of the year, the class average grade at the Ambodibonara school remains higher than 10/20 during the school year. In Ampasimbola, it never reached 10/20, but hovered around 6.94/20 during the 2nd bimonthly period, after November, when teachers and pupils were often absent. The difference between these two averages is significant at a threshold of 5%. This shows that incomplete teaching time is a decisive factor, which impacts negatively on school results. May proximity follow up activities carried out by school headmasters, parents and ZAP's chiefs bring up an improvement in this domain?

Gender problems

During an overall analysis of the school archives, it has been observed that girls are more often absent than boys (Figure 4). And at the end of the school year, many girls repeat their class. For example, in Ampasimbola, 54% of girls repeat the year against 36% of the boys. This allows us to affirm that even though school admission does not reveal differences in gender, family habits and culture clearly show disparities between boys and girls at school. According to the school headmasters, parents think that girls have to get married when they are about 14, so education is not considered as important for them as it is for boys. Is this gender problem, hidden by the balanced access rate between boys and girls, taken into account by the authorities within the Ministry of Education? Could mass education conceal differences between boys and girls in the region?

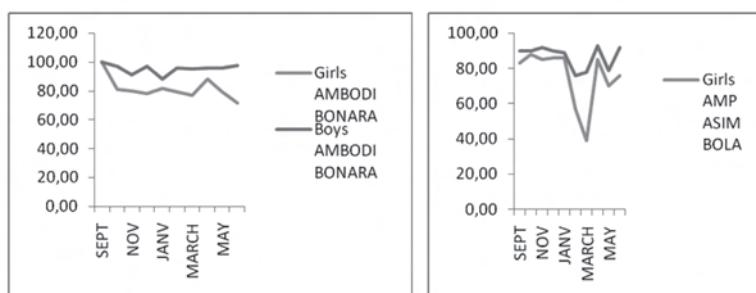


Figure 4. Comparison of Boys' and Girls' rates of Absence in Grade 2 at Ambodibonana and Ampasimbola Primary Schools

Training and follow up

In theory, teachers have to attend 3 days of training per period, that is to say 15 days a year. In 2006-2007, the teachers in the two schools observed, attended only 4 days of training, which, over the 3 years, have been focusing on large classes and the use of the new bilingual textbooks. Unfortunately, the grade 2 pupils do not use these textbooks and their classes are not overcrowded. Would an adjustment of in-service training to teachers' needs be possible? In theory teachers' follow up occurs regularly, for those who are located in areas that are easily accessible it is less frequent in other areas. In the two schools observed, among the most accessible, there seems to be no follow up carried out by headmasters, ZAP chiefs or parents (Table 2). Still, do the written archives (logbooks, attendance record notebooks...) at the headmaster's disposal, the checking of pupils copybooks by parents, the local trainers' follow up and advice not constitute a kind of encouraging revalorization of teachers' work and is this not proof enough of the community's interest in their efforts?

Table 2. Teachers and Pupils Absences in the Two Schools Visited

	EPPAMBODIBONARA	EPPAMPASIMBOLA
Effective teaching time	860 hours	610 hours
Teachers absences	20 days	55 days
Catch up sessions	6 days	0 days
Months of teachers' absences	None	November, February and March
Months of pupils' absences	January	February, March, May
Months of girls' absences	December, February, March, May, June	November, February, March, April, May, June
Months of boys' absences	None	February, March, May
Lowest attendance rate of girls	71.43% (in June)	39% (in March)
Lowest attendance rate of boys	88.22% (in January)	76% (in February)

Conclusion

This study, focused on teaching time, one of the factors related to the non-completion of the curriculum, has made it possible to highlight some important points:

- teaching time is not sufficient, first because of pupils and teachers' absence (pupils

having to help their parents, teachers having to collect their salary), leading to the non completion of the curriculum, which leads to poor school results.

- the remoteness of the school and severe weather conditions and other farming schedule constraints are the main causes of these absences
- teachers' skills do not enable them to get round the problem of the reduction of teaching time or the other day to day problems they have to face (harsh working conditions, isolation of schools, multi-grade and large classes...)
- However, if the teacher is conscientious or benefit from regular follow up from either the ZAP or the CISCO, he or she can resolve these problems and still manage to improve his or her results despite all the disruptions occurring during the year.

The following recommendations are put forward in the light of this work.

Concerning parents

All available means (radio, TV broadcasting) should be used to sensitize parents about the need for education and the link between prolonged absence and poor school results. The community should organize to enable pupils to continue to attend school and look after these children and give them food while their parents are working in the fields away from the village. The care and the food that should be made available to children during the intensive agricultural work period may solve the problems of children who must miss school to follow their parents. A Health Center representative should visit the village periodically, and basic medicines should be provided to the school (antimalarial or anti-diarrhea drugs ...)

Concerning teachers

If a closer salary payment point is hard to put in place, catch up sessions should be organized after an absence and should be actively encouraged. The links between the school and the community should be reinforced by regular meetings to keep parents informed of the objectives, to evaluate the way to reach these objectives and to think of solutions; punctual discussions between the teacher and parents with particular problems may also be organized if need be.

Concerning the government

Local and distance training, as well as teacher follow up should be reinforced, according to teachers' needs. On the other hand, given the yearly recurrence of cyclones and of other natural disasters, a readjustment of the school calendar according to the particular characteristics of each region may prove beneficial to teaching. To Toamasina 2, we suggest the CEPE exam date be maintained, and that the dates for the school holidays be displaced in order to make the holidays coincide with the rainy season. Yet, if this change is implemented, pupils will have to work during winter (between July and August) which also coincides with rain and bad weather. Improved roads and infrastructure would be essential for the safety of each and every person, as well as a moral commitment of parents to sending their children to school, whatever the season.

Teaching time should be standardized so as to enable teachers to manage it more

efficiently and help them complete the curriculum, allowing for disruptions due to the different factors that cannot be controlled (the constraints of the farming schedule, the rigors of the climate...). A change in the current way of thinking, a departure from the traditional “moramora” culture would be suitable. People should be made aware that over time, accumulated delays and interruptions can be detrimental to the implementation of the planned activities.

Some points that have an impact on the quality of education could not be clarified in this study. Resolutions have been adopted by the Ministry of Education for some of them. However, supplementing them with research would be beneficial; this could form the basis for a change that will be both effective and appropriate:

- From September 2008, in-service trainings have been carried out according to the needs of teachers, who have been grouped together in networks. Did these trainings actually promote the professional development of teachers (management of didactic material and teaching time)? Are teachers able to define their needs? What could motivate FRAM teachers and state school teachers to acquire more consistent academic and organizational competence?
- Radio programmes are now broadcast on the national radio station, to help grade 2 teachers with their job. Is the impact of these broadcasts positive? If so, why not extend it to other levels and to mass education with a view to ultimately overcoming the cultural problems affecting teaching (absence problems, gender problems...)? Because of the schedule and the quality of reception of these broadcasts, is the efficiency of this distance education the same in urban and rural areas? May other vectors be more suitable in some areas?

All these points constitute research perspectives to be exploited in the future so as to improve the quality of education in Madagascar.

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