



Scholars  
Program



**AIMS**

African Institute for  
Mathematical Sciences  
**CAMEROON**



14 – 17 February 2024

## Report of Refresh Training for Cluster Leads.





## Introduction

The aim of AIMS TTP Cameroon is to improve Mathematics education in secondary schools in Cameroon through training of Pedagogic Inspectors for Mathematics, Mathematics lecturers in Higher Teacher Training Colleges, in-service teachers, pre-service teachers and sensitization of heads of schools and other education stakeholders. 2006 in-service teachers and 1119 pre-service mathematics teachers were trained, during the first phase of AIMS TTP Cameroon.

An evaluation of the effective implementation of acquired skills and knowledge in the classrooms, by the trained teachers, revealed that the implementation of acquired skills by teachers as well as Follow- Up by the Master Trainers was not effective and satisfactory.

As a strategy to ensure better implementation of acquired skills, knowledge and attitude, TTP and the Ministry of Secondary Education (MINESEC), adopted the Cluster Strategy for improvement. The main aim of Cluster Strategy, being that teachers will gain more knowledge, skills and attitudes from each other, to improve in their classroom practices. Clusters were therefore, created in all the Regions of the Country. Cluster Leads (CL) were designated to organize and motivate cluster members and support cluster activities. So far, about 358 Cluster Leads were trained on cluster activities by TTP.

However, during the 2022-2023 academic year, TTP recorded 435 clusters created all over the nation and only 38 were effective. CLs gave some causes among which was the fact that they do not understand the cluster strategy and how they should function. Secondly, the Ministry of Secondary Education (MINESEC) is going on with digitalization of lessons. AIMS comes in to support MINESEC to train mathematics teachers so that they can adapt their lessons to the new norm.

It was therefore, within these contexts that some 30 CLs from schools in the Fako Division of the South West Region, underwent a 4-days refresh training in Buea, to re-activate cluster activities using Lesson Study, Digitalization of lessons and how to use Digitalized lessons in the classroom situation.

### Goal

The goal of this training was to re-activate cluster activities.

### Objectives of Training

This training was to equip Cluster Leads:

- with skills and strategies to coordinate and to facilitate learning among cluster members;
- with skills to digitalize mathematics lessons;
- with skills to use digitalized lessons on the MINESEC platform in the classrooms.

### Date and Venue

The refresh training for Cluster Leads, took place from the 14 to 17<sup>th</sup> February 2024 at the AIMS TTP Laboratory in the university of Buea.

## Expected Outcomes

- Mastery of cluster strategy by Cluster Leads;
- 07 digitalized lessons;
- Transformation of teaching methods in mathematics using the lessons on the MINESEC platform;
- An environment conducive to positive change and improvement created;
- Change of mindset among teachers

## Trainers

The trainers were:

- BABILA GHOGOMU Emilia, Pedagogic Officer, AIMS TTP Transition;
- 02 Regional Pedagogic Inspectors for Mathematics for the Center Region:  
Inna Yadaci Bouba épse Darchieu;  
Sanji Ernest Karawa;
- 02 Regional Pedagogic Inspectors for Mathematics in the South West Regions:  
Nzume Peter Etuge  
Waffofogue Bruno
- 01 National pedagogic Inspector Head of Section, Tchouaffi Romauld, was present to represent the Inspector Coordinator General for the Sciences.

## Trainees

- 30 CLs mathematics teachers from some public and private secondary schools in the Fako Division successfully attended the workshop.

## Training Content

- Lesson study in groups;
- Digitalizing lessons (Practical) in groups with the assistance of CLs who master the process;
- Using digitalized lessons on the MINESEC platform (practical) and real teaching;

## Methodology:

Prior to the workshop, participants were divided into 07 groups. Each group choose a lesson of 50mins to prepare together. They used WhatsApp and other means to prepare the lessons, thus practicing Lesson Study. Groups came to the workshop with their lesson plans. The workshop was practical. Group members sat together. The activities for each day can be summarized as below:

### **Day 1,**

Groups presented their lessons. Lessons were discussed, revised and validated.

Introduction to digitalization of lessons. Installation of PowerPoint, GeoGeBra for those who have not done so, how to upload videos or pictures onto PowerPoints, how to make own audio, how to upload diagrams from GeoGeBra to the PowerPoint etc.

Individual practice on their machines.

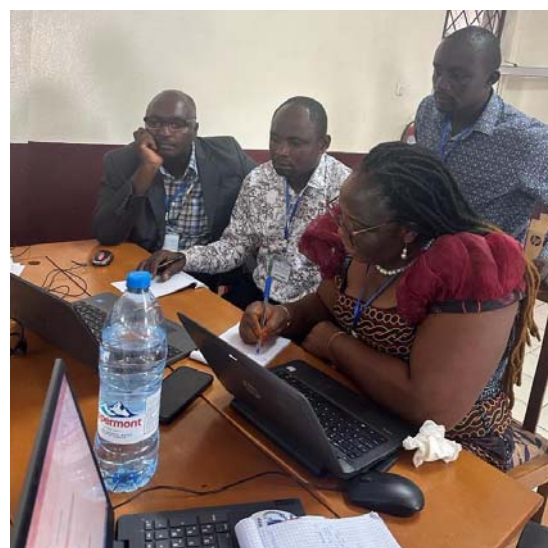
All CLs who could already do one of two things were invited to hand-hold those who have never tried, thus the spirit of cluster activity.



**Day 2:**

A demonstration on how to use digitalized lessons on the MINESEC platform was done. Groups were assigned lessons that are on the platform in preparation to real classroom teaching.

Groups downloaded their lessons, prepared the lessons and simulated the lessons. These lessons were validated for the classroom.

**Pictures of Trainees during session:**

### Day 3:

#### Actual Teaching in Bilingual Grammar School Molyko Buea

This was the high point of the workshop, as teachers were looking forward to it and the students were waiting for the visitors they were told to expect.

Before the workshop, Bilingual Grammar School (BGS) Molyko, Buea, was identified for actual teaching. A letter from MINESEC was therefore sent to the Principal of this school for this activity. The Regional Pedagogic Inspectors for Mathematics went to the school and collected from the class teachers, lesson titles to be taught on Friday the 16<sup>th</sup> Feb 2024. Class teachers were also asked to inform their students to expect visitors. They verified to be sure these lessons were already digitalized and on the platform.

On day2 during the workshop, the Inspectors, the Head of the Maths depart in BGS and Pedagogic Officer for AIMS TTP, visited the school to verify the facilities available (Sockets in the classrooms, projectors, projecting surface, speaker etc). They also gave the teaching timetable to the Vice Principals. Teachers were given instruction and timetable for actual teaching in.

To avoid crowding in the classroom, cluster Leads were assigned to lessons they will observe.

Timetable for teaching s in 06 classrooms in BGS Molyko Buea.

Period	Class	Lesson	Group Teacher of the day
7:30 – 8:20	Form 1C	Addition and Subtraction of Decimals	Group 3 Mr. Ketchem Richard
	Classe de 4eme M2	Equation du type $ax +$	Group 7 Ngadje Kameni
8:20 – 9:10	Form 1G / 1B	Multiplication and Division of Decimals	Group 2 Mr Ebulle Brice Masango
	Form 1F	Multiplication and Division of Decimals	Group 1 Mme Frida
9:10 – 10:00	Form 2A	Vertically Opposite angles, Corresponding angles	Group 4 Mr. Motia
	Form 2D	Angles formed by two parallel lines and a transversal	Group 5 Ekoge Cletus
10:00 – 10:50	Form 4 A	Solving Simple exponential equations	Group 6 Mr. Aben

This was followed by analysis and giving of feedback on each of the lessons presented.

Some pictures in the classroom:



Lesson with Form 1C students



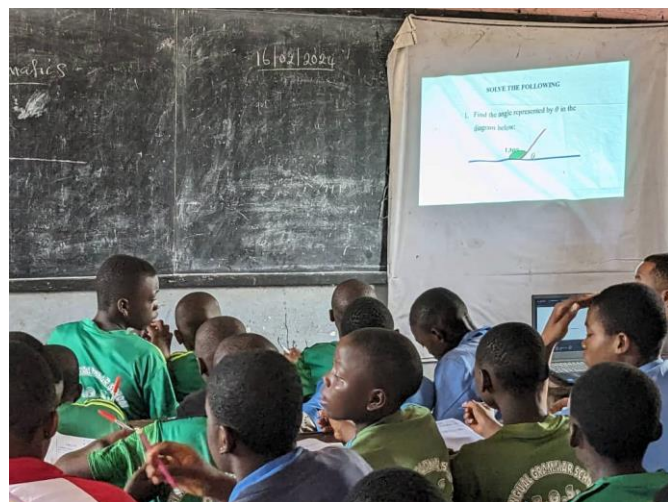
Simulation of Form 1F lesson in the lab



Form 1B lesson



Students' participation in a lesson



Form 2 class



4eme class lesson





Form 4 lesson



Form 2 lesson



Lesson for Form 2



Lesson in 4eme

After actual teaching in the classroom, we discussed the lessons with emphasis on what need to be improved.

Cluster Leads started with digitalization of their lessons in groups.

#### Day 4

Groups continue with digitalization of their lessons.

Groups were given time to present what the group has done so far.

Wednesday the 6<sup>th</sup> was given to all groups as latest day for all lessons (word copy and digitalized copy) to be sent to Babila Emilia and to the Inspectors.

#### Challenges:

The challenges were at the level of BGS Molyko. Of all the classrooms we have to teach in, only 01 had a socket. We therefore used one of the science labs and the gymnasium of the school. This made students to move out of their classroom to either the lab or the gymnasium thus time wasted. Two of the classes have students who are virtually impaired thus needing more time to move from their classroom. The images for the projection was poor because we improvised white cloth to use and the place to project was not the appropriate because of light coming in directly on the space.

Some of the lessons downloaded from the MINESEC platform have some major errors.

At the level of the CLs, some have different versions of the PowerPoint and some very old laptops that never functioned throughout the workshop. We could not use the desktops because of PowerPoint.

### Suggestions:

With respect to digitalization of lessons and use of digitalized lessons by teachers, schools have to be equipped with sufficient material resources for that, schools need to have generators in case of power failure. Sockets in classrooms, create projecting space or surface in each class.

Mathematics teachers have to individually learn GeoGeBra and LaTeX for producing quality mathematics resources.

### Workshop Statistics

<b>No of participants</b>	<b>French sub system No of participants</b>	<b>English sub system No of participants</b>	<b>No of schools</b>
30 05 females 25 males	05 00 females 05 males	25 05 females, 20 males	19 15 public 04 private

### Evaluation of the workshop

The workshop was evaluated orally at the end and the trainees acknowledged they now understand the cluster strategy and how they should function and they have acquired skills on how to facilitate cluster activities, how to digitalize lessons and most importantly on how to use lessons on the MINESEC platform in the classroom situation. They promised to continue in their schools and as CLs should continue to discuss their challenges and success stories on the forum created for them.

The highpoint was the actual teaching in BGS Molyko. Many of the teachers confessed it was their first time of using the lesson on the platform to teach in the real classroom. There was so much excitement and the President of the South West Association of Mathematics Teachers gave a vote of thanks to AIMS and MINESEC.

### Conclusion

All 30 cluster Leads invited, were present for the workshop. This workshop was very successful. The expected spirit of sharing and collaboration was achieved and hopefully these cluster Leads will continue in the same spirit in their clusters.

CLs who have never attempted digitalizing a lesson acquired skills to start doing so.

There was visible enthusiasm in the teachers as most of them wanted to present for their groups.

Submitted by  
BABILA Emilia,



Pedagogic Officer AIMS TTP Transition period.