

Djibouti Follow-Up Report, January 2019

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1. BACKGROUND AND OBJECTIVES

Japan International Cooperation Agency (JICA) Adviser for Mathematics and Science had terminated his contract in September 2018. Through 15 months of activity from June 2017, various outputs are produced by the Expert, e.g., Mathematics Workbook, Training Modules, and Evaluation Report. Meanwhile, those outputs were not satisfactory introduced to Djiboutian counterparts by the time of his contract termination. One of the major outputs “Mathematics Workbook” is core product by the Expert and JICA is intend to create opportunity to share the concepts and usage of them.

Our mission for this Djibouti visit is to hold special workshop for ex-counterparts of the JICA Expert. One of objectives of the mission is to explain Mathematics Workbook and introduce effective teaching method.

The other objective is to follow-up thematic training in Naruto, Japan, focusing on community-based school management conducted in June 2018. We visited several schools (in rural area and city) and conduct some interview and provide necessary technical instruction for management activities.

2. SCHEDULE

Table 1: Visiting Schedule of Djibouti

Date	AM	PM
24 Jan (Thu)	Arrive in Djibouti	Meeting at JICA Djibouti Courtesy Call to MENFOP*/CFEEF**
25 Jan (Fri)	Workshop Preparation	
26 Jan (Sat)	Workshop Preparation	
27 Jan (Sun)	1 st Day of Mathematics Workshop (by Prof. ISHIZAKA & Ms. TAKAHAMA)	
28 Jan (Mon)	2 nd Day of Mathematics Workshop (by Mr. ITAGAKI)	
29 Jan (Tue)	School Visit 1 (CGE*** Follow-up)	School Visit 2 (CGE Follow-up)
30 Jan (Wed)	School Visit 3 & 4 (Mathematics)	Report to JICA Djibouti
31 Jan (Thu)	Report to MENFOP & Japan Embassy	Leave for Japan

* Ministère de l'Éducation Nationale et de la Formation Professionnelle (MENFOP)

** Centre de Formation des Enseignants de l'Enseignement Fondamental (CFEEF)

*** Conseil de Gestion de l'École (CGE)

3. ACTIVITIES

27 Jan, 2019

Mathematics Workshop Day 1 @ CFEEF (8 am—1 pm)

1) Prof. Ishizaka “Comment utiliser le livre des activités de mathématiques” (Fig 1)

Lecture Content:

Theme: Japanese style teaching for four operations

- i) Introduction of Japanese mathematics teaching style
- ii) Introduction of “le livret des activités”
- iii) Key points/issues of four operations: addition, subtraction, multiplication and division

During this lecture, participants frequently raised inquiries and comments, enriching discussion. As a conclusion, participants confirmed that decimal numeration system is the most important point to improve children's skills to do 4 operations.



Figure 1 Prof Ishizaka giving lecture.



Figure 3 Participants of workshop playing card game of composition/decomposition of whole numbers.

2) Ms. Takahama “Activités pour le calcul mental”

Lecture Content:

Theme: Sense of quantity

- i) Explanation about sense of quantity (Fig 2) and the importance of teaching step by step
- ii) A card activity to have sense of quantity
- iii) A rhythm activity to make 10
- iv) A card activity to do composition and decomposition of whole numbers 1 ~ 9 (Fig 3)

Participants said that there are students who use fingers to count from number 1 when teacher tell them to show number 7 with the fingers. In other words, some students have difficulties gaining sense of quantity yet, so this presentation was very useful to them. Since they proactively participated in the card activities, hopefully, participants make the same/similar teaching material and apply in their classroom with students.



Figure 2 Ms. Takahama talking about sense of quantity.

28 Jan, 2019

Mathematics Workshop Day 2@CFEEF (8 am–1 pm)

3) Mr. Itagaki “L'apprentissage coopératif”

Lecture Content:

Theme: Cooperative Learning (Fig 4)

- i) Demo lesson of Cooperative Learning
- ii) Concept of Cooperative Learning
- iii) Report of my previous research in Jamaica
- iv) Discussion

In the first session “Demo lesson”, participants joined the lesson as student. During the lesson, they discussed the topic “What’s the solution to improve student’s mathematical ability”. It seemed that this was a good opportunity for them to share own idea among others and understand the structure of cooperative learning. In the “Discussion” session, we shared a situation and issue of school, then discussed about solution (Fig 5). I hope participants will share today’s concept with school and arrange in own way



Figure 4 Mr. Itagaki giving lecture at workshop.



Figure 5 Participants discussing about issues of schools.

which is suitable with their conditions.

4) Ms. Takahama “Activités pour le calcul mental (continue)”

Lecture Content:

Theme: Activities to obtain calculation skills and about importance of the daily feedback.

- i) Review yesterday’s contents
- ii) Card activities to have mental calculation skill of addition, subtraction and multiplication.
- iii) Explaining about the importance of giving feedback to all students.

Teachers understood well how to do the card activities. However, some uncertainty remains about whether this activity can spread due to various school situations in Djibouti.

I show that there are many kinds of activities to make students obtain calculation skills and that teachers can use suitable ways for different situations. I hope participants learned that they can do mathematic activities if they have little bit of time besides daily mathematics classes, and understood the importance of giving feedback to not only good students but also to slow learners.

29 Jan, 2019

<Ali Sabieh 2>

General Impression by Prof. Tamura

This primary school is located in Ali Sabieh state, and all the processes (Pre-meeting, Information gathering and Electoral assembly) of CGE (School Management Board, or Conseil de Gestion de l’École) have been conducted by 12 Jan, 2019.

The very first Assembly General is planned to



Figure 6 Listening to the situation of CGE from the principal at Ali Sabieh 2.

be held on 5 February (Tuesday) where all parents and community members will be invited to join. Main topic at the meeting will be: 1) Firm announcement that the school belongs to the community, 2) Sharing the results of evaluation of pupils on their achievement since beginning of the year, and 3) issues about the school. These issues include how to improve pupils’ achievement (with tutorial classes) and school hygiene. Also, they will elect some representative for smaller community or residential area since it is very hard for all parents and community members to join Assembly General every time.

While cooperation between the school and community has been carried out before the new CGE is introduced, the principal retained all the power to finalize discussion and to control finances. However, with the new system, the principal resides as secretary general and the president of CGE, who have power to finalize discussion, is elected from the entire community. In this way, the new CGE is more democratic and all teachers and community members are in favor of working together for better future (Fig 6). Also, while there are total of 16 schools in the state, they are proud to be selected as a pilot school for new CGE and willing to be the leader for the entire state.

Detailed Notes by Prof. Ishizaka

Interview in Ali Sabieh2

- (1) Interviewees: Director of school (Mr. Moustapha Hassan Waberi) and President (Ms. Araksaw

Houssein Ahmes)

(Principal mentioned that)

- (2) Election of president of committee was conducted and members and president were selected. Approximately, 100 community people and parents came to join the election.
- (3) We joined the training conducted by JICA, Dec. 14. We held a general assembly in January.
- (4) School has 12 class rooms, 1 principal room and 1 library. There are 24 teachers and 749 students in total (368 female, 412 male). This school consists of 2 sessions: morning and afternoon.
- (5) School usually conducts diagnostic tests, interim tests and final tests, and evaluate their results. Some results of test are shared for not only members of the committee, but also community people and parents, and for the next year, all the results will be shared for them.
- (6) Before the establishment of the current committee, there was a committee, but its president was the principal of school (somehow, it was top-down system). And I by myself chose members of committee, however, now the members are elected. This is working well for democratic management.
- (7) Collaboration between school and community was improved in the sense that communication between them was turned into active one and school became more accountable for parents and community people.
- (8) Since committee members were democratically selected and they work very actively, the communication between school and community was improved. Another general assembly will be held soon. For this general assembly, school and committee are going to call all the parents and community people. Then, we will discuss to plan activities for this school year. Currently what the school and committee are trying to do is to conduct internal meeting with teachers to prepare the general assembly and the other related activities, and to carry out preparatory training/meeting for committee members and community and family representatives, too.
- (9) Example activities the parents join currently are school cleaning Saturday at the end of each month, and school repair. Parents are also able

to observe lessons. They can talk directly with teachers about his or her children's performance and issues. Teachers offer the school records to parents whenever they want, too.

- (10) There established a team of teachers to collaborate for this management system and they are actually very active and positive for it. We have already gathered statistic information about current results of academic performance with respect to mathematics, writing and reading skill.
- (11) In Ali Sabieh, there are 16 schools, of which 5 are located inside of city. Our school is a pilot school, so that I would like to develop this system to disseminate it later on for the other
- (12) As a principal, I would like to develop new activities, like, to raise an issue of quality of education/academic performance of students, in particular, reading and writing skill, and then discuss with the parents and community people about how to improve it.

(President said that)

- (13) The community people and parents are very comfortable about the new management system, since they could have more access to school and children's information, even what's going on in school, and they could join the management itself in terms of accountability of budget and teaching.
- (14) As well as what the principal is proposing, to improve the children's academic performance and school sanitation is our priority.

<Quartier 7 Bis>

General Impression by Prof. Tamura

This primary school is located within the city of Djibouti, and as the case of Ali sabieh 2, all three processes of CGE has completed by 8 Jan 2019.

The very first Assembly General is planned to be held on 2 February (Saturday) where all parents and community members will be invited to join. The main topic at the meeting will be: 1) Sharing the results of evaluation of pupils on their achievement since the beginning of the year, and 3) issues about the school. The evaluation—while Ali Sabieh 2 uses results of test from the beginning of the school year and 4 months in—Q7bis have conducted a newly



Figure 7 Listening to the situation of CGE from the president of CGE at Quartier 7 Bis.

created test last week (week of 20-24 January) to show the current achievement to the parents and community members. Teachers are currently marking the test and analyzing the results as we spoke to the principal, president of CGE and treasurer on 29 January, 2019. However, since the test results have not finished being analyzed yet, the president, treasurers, and secretary general (school principal) have not come up the details plan to present at Assembly General about how to improve pupils' achievement yet (Fig 7).

Teachers, parents and community members, as in the case for Ali Sabieh 2, are all thinking in favor of the new CGE and hope this will improve the achievement of pupils.

We also learned that 8 pilot schools, with Mdm Loula (MENFOP) and Mr. Kunieda (JICA Tokyo HQ) have created a group on What's Up (Internet Social Networking Application) to share each school's progress and issues to discuss as they come up.

Detailed Notes by Prof. Ishizaka

Interview in Quartier 7 Bis

- (1) Interviewees: Director of school (Ms. Fardousse Idriss Abdillahi), President (Ms. Aicha Ahmed Rabeh), Treasurer 1 (Mr. Moustapha Djama Ali), Treasurer 2 (Ms. Hibo Moumin Assoweh)
- (2) Observer: Director of Public Education, MENFOP (Ms. Loula Ali Elabe)
(Principal mentioned that)
- (3) Election of president of committee was conducted and members and president were

selected. Two trainings about how to establish committee and how to plan activities (Dec. 14 / Jan. 12-18) were implemented with JICA supports. Internal meeting with teachers also has been conducted to share information and prepare establishment of committee and general assembly.

- (4) School prepared a new mathematics/reading test and is going to conduct it this Saturday other than usual diagnostic/continuous/final tests.
- (5) The first general assembly will be held this Saturday, inviting all the community people, parents and teachers.
- (6) Among 8 pilot schools (2 secondary school and 6 primary school), What's Up was used to communicate among pilot schools, exchanging photo and information, etc.
- (7) School communicates with parents through children, and with community people through letter.
- (8) School has 10 classrooms, 1 principal room and 1 library. There are 20 teachers and 568 students in total (288 female, 280 male). This school consists of 2 sessions: morning and afternoon.
- (9) Before the establishment of the current committee, there was a committee, but its president was the principal of school (somehow, it was top-down system). And I by myself chose members of committee. This is working well for democratic management.
- (10) We have conducted already 2 assemblies to explain about committee establishment and elect members and president of committee. Through these assemblies, we noticed that collaboration between school and community was improved in the sense that communication between them was turned into active one and school became more accountable for parents and community people.
- (11) Example activity the parents join currently is only school cleaning of every Saturday (, which is in fact all schools' activity). Parents can observe lessons. Usually they have chance to observe lessons 3 times a year. They can talk directly with teachers about his or her children's performance and issues. Teachers offer the

school records to parents whenever they want, too.

(12) Parents association constantly holds internal meeting. Therefore, the association can bring their collective ideas to the committee to improve the school.

(13) Some results of test will be shared for not only members of the committee, but also community people and parents through general assembly.

(14) As a result of discussion among the members of committee, we would like to develop new activities to raise an issue of quality of education/academic performance of students, in particular, reading and writing skill, and then discuss with the parents and community people about how to improve it. Tutorial class may be managed by volunteers such as parents, community people.

(President and treasurers said that)

(15) The community people and parents have positive view about the new management system, since they could have more access to school and children's information, and they could work together to solve school issues.

(16) An association of literature (whose members are ex-teachers and those who like to read) also currently helps this school, and the members are welcoming this management system, since they expect that their activities develop better in it.

(17) As well as what the principal is proposing, parents agree with the establishment of tutorial class for children.

30 Jan, 2019

<AI Hourya>

Lesson target: 3rd grade, Mathematics lesson

Topic: half and double

Development of lesson:

- Reflection about multiplication table. Teacher asked students to calculate operations (multiplication) teacher indicated.
- Giving a situation problem: there are 20 chips, 1 student want to give its half to his friend, how many chips his friend can have? A table of 2 columns ("number" and "half") was given to students.
- Students were asked to make group and discuss



Figure 8 Pupils are using chips for counting.

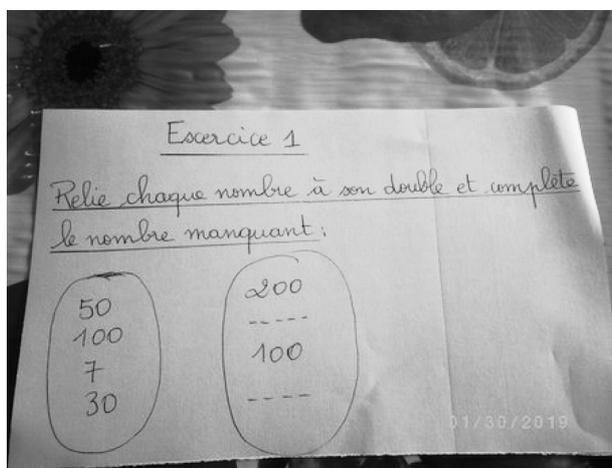


Figure 9 Explanation of teacher about the exercise at the end of the lesson.

- the situation problem, using hands-on chips to count (Fig 8) and a blackboard for group work
- Each group's ideas were shared and the whole class concluded that the half means equal numbers to form one big number.
- Several exercises were applied to confirm whether students understand how to find out half of a number.
- Later, half numbers were given to find out their whole number, which is called "double".
- Teacher confirmed that the meaning of "half" is to "share" one thing, and the meaning of "double" is to "multiply by 2".
- At end, worksheet was distributed to all the students and teacher explained the meaning of exercise questions on the worksheet (Fig 9).

Comment on the lesson (By Ms. Takahama & Mr. Itagaki):

【Good point】

- The teacher's performance is effective to attract the students.
- The indication to the students is understandable.
- The class management is good and the students are controlled.
- The students memorize time table 2, so it seems that they are trained well about the calculation in daily class.
- It is not teacher-centered teaching, there are group activity and individual activity.
- The teacher has confidence to use material to make the students understand.
- The material is prepared well to every group.

【Points to be improved】

- The order of teaching should be considered more to make students understand well.
- The contents should be ordered from basic to more complicated things.
- The content of one class is too much for the students.
- The teacher focuses on only answer so it is better to make the students explain the process to get the answer when they do individual activity.

<Gachamaleh>

Lesson target: 2nd grade, Mathematics lesson

Topic: 59 and 60 as new numbers

Development of lesson:

- Reflection about addition of 2-digits number and 1-digit number such as $50+3$, $50+8$, $50+1$.
- Situation problem was printed and distributed to all the students: A person wants to make groups of 10 sticks. How many of sticks can be formed, through this grouping?
- Teacher distributed hands-on sticks (Fig 10) to make pupils think about the problem (Fig 11).
- Students were guided to firstly form 1 group of 10 sticks (intentionally teacher asked 1 student of each group to form a group with 9 sticks), later sum up the total number of sticks. Students wrote mathematical expression: $10+10+10+10+10+9=59$.
- As a second situation problem, teacher asked



Figure 10 Teachers prepared colorful sticks for counting and distributed to each group of students.



Figure 11 Students using the distributed sticks discuss in group about the problem.

students to write on small individual blackboard 59, separating 5 as “O (circle, meaning 10th digit)” and 9 as “ϕ (circle with slash, meaning 1st digit)” in a digit table. Teacher defined 10th digit as grouped number, and 1st digit as non-grouped number.

- Later, teacher changed “O (10th digit)” into “d”, “ϕ (1st digit)” into “u” on the digit table of classroom blackboard
- And teacher asked a student to draw on the digit table of group paper and classroom blackboard an image and write number of 5 groups of 10 sticks in “d” and 9 sticks in “u” separately.
- Teacher confirmed 59 as a new number for the students and as third situation problem he asked them what number would be, if 1 is added to 59 and put it into the same digit table of “d” and “u”. The students answered that the new number is

60 and 6 is on “d” and 0 on “u”. finally, teacher confirmed how to call 60.

- As an exercise, teacher gave students to find out answer for, e.g., $58 + _ = 60$, $57 + _ = 60$, and confirm each number on the digit table of classroom blackboard and distributed worksheet.

Comment on the lesson (by Ms. Takahama & Mr. Itagaki):

【Good point】

- The teacher prepared the material well for the students.
- The class management is good and the students are controlled.
- The teacher respects the students’ opinions.
- It is not teacher-centered teaching, there are group activity and individual activity.
- The teacher is trying to educate the students to make the notebook to record the contents that they learn in the daily class

【Points to be improved】

- The objective of one class should be only one thing.
- The content in one class is too much and it is not suitable to the situation of the students.
- The order of teaching content is not organized.
- The teacher uses various way to explain the concept of digit, it should be only one way to make the students understand well.

4. SUMMARY

We found that the ex-trainees of science and math education have been working hard to apply what they learned in the training course for their daily lessons or tasks. During the workshop, the participants discussed the issues of “number and operations” from theoretical to practical viewpoints.

The ex-trainees of community-based school management also are very actively implementing the action plan to establish this system in 6 primary schools and 2 secondary schools. Based on the findings from our mission program and activities, we would like to summarize them in the following ways:

- (1) The teaching materials developed by the JICA expert which is called “le livret des activités”

was practically accepted by the participants (lectures of CFEEF, inspectors, educational advisors & teachers).

- (2) On the other hand, Djiboutian teachers are very proud of their own way of teaching and inspectors and educational advisors would like to respect it. Then, to what extent the teachers really employ the new method or materials strongly depends on each teachers’ preference. It implies that it can’t help happening various type or degree/level of acceptance of the new method or materials.

- (3) Therefore, it would be recommended that future activities or project/training course plan to intervene educational issues with total validation from MENFOP. One of the easiest ways is to introduce officially valid concrete materials such as textbooks, hands-on material sets for children and experimental kits/equipment of science for school laboratory. Based on that introduction, it would be almost imperative to plan a continuous training about how to use these textbooks, hands-on material sets and experimental kits/equipment, since the concrete materials hardly guarantee positive results without any guidance or follow-up.

- (4) In addition, to improve teaching quality and motivate teachers to improve it, “Lesson Study (LS)” would be one of appropriate systems that can be introduced. LS has been conducted in Japan and nowadays it is being applied in many countries such as USA, Singapore, Indonesia, China, Cameroon, Rwanda, Uganda, etc. LS consists of 1) preparation of a lesson among teachers, 2) implementation of the lesson, 3) reflection about the results and 4) re-plan and carry out again the lesson, based on the reflection. This is a spiral cycle to improve quality of lesson. Since Djibouti is a relatively small country where it would be easier to establish LS, inviting teachers, educational advisors and inspector, and if the MENFOP holds a LS contest/competition and praises those teachers who make effort to do LS and show model lesson, they would be very motivated and

become leader for the other teachers.

Key point is whether it is possible to create a custom, even culture of teachers to work together to improve teaching quality. To do that, it would be worth to consider possibility of establishing a non-profit association of teachers to manage LS at national/regional/district level. Training itself is not enough. It would be an important challenge to change school and teacher culture, at the same time, motivating their own ownership and respecting pride of being teacher as a profession.

- (5) For example, there are 8 schools just started to establish community-based management system, based on the training course conducted in Naruto, Japan. JICA and MENFOP may assign

them as pilot schools not only for community-based management, but also for LS.

A new training course by JICA will be implemented in 2020 or later. It is hence worth to consider LS as a topic of this training course. 8 principals of these schools and 1 educational advisor and 1 national inspector who are in charge of corresponding school district/region would be good candidates for this training. In this way, this training course may produce synergic effect between community-based management and LS to improve quality of education of the 8 pilot schools. After the training course, we can expect these schools to organize LS in their school and establish national or regional associations of teachers of LS.