REPORT ON THE CONSULTATION TRIP TO TAIZ, YEMEN
DECEMBER 26 - 31, 2009
TRAINING OF PARTICIPANTS IN THE INTALIQ PROJECT (SCIENCE AND MATH TEACHERS)

PREPARED BY SAOUMA BOUJAOUDE

Participants

Participants in the training were 39 math and science teachers and supervisors and school principals from a selected number of schools in Taiz, Yemen. The schools from which the teachers were selected are participants in the INTALEQ Project. INTALEQ is a partnership involving both U.S. and Yemeni public and private sectors. It provides educators teaching math and science with skills and materials to prepare their students for the 21st century. The project is helping teachers from selected schools learn how to integrate technology into the math, biology, and chemistry classroom and provide them with digital learning resources that fit the Yemeni curriculum.

Trainers

I was the lead trainer in Taiz; however I was accompanied by three female trainers from the Ministry of Education. Two of the trainers had science background (Biology and chemistry) while the third was a technology expert whose task was to assist participants in technology related matters such as opening email accounts, registering on CURRUKI, and searching the Internet for material relevant to the training.

General framework of the training

As indicated in my emails to Helen Boyle, Rachel Christina, and Abdelchafi Boubkir the focus of this training was on using the lesson study cycle and integrating the learning objects in the lessons. In addition, the training involved developing, presenting, and receiving feedback on lessons plans by using four student-centered teaching strategies namely inductive teaching, deductive teaching, concept mapping and cooperative learning. I also indicated in the emails that it was advisable to use a number of the lessons developed by the participants to develop a manual that included the training materials that I shared along with examples from the lessons plans developed by teachers.

The training activities that I shared included guidelines for developing and evaluating lesson plans, teaching observation forms for the teaching strategies that were planned to be used in the training, along with guidelines for introducing students to concept mapping, along with a limited number of theoretical documents. The focus, however, was on hands-on work by the

participants rather than on theoretical issues because most of these issues were addressed in earlier training.

Please note that the steps of Lesson Study mentioned above are as follows:

Step	Comments
Focus the Lesson Study • Agree on long-term goals for student development. What qualities do we hope students will have when they graduate from our school? • Select an academic focus, based on discussion of standards and of the topics that are persistently difficult for students.	• This has already been determined. My understanding is that the purpose of the training as other trainings is to help the teachers and supervisors to plan meaningful ICT based lessons that encourage students to be critical and independent thinkers who are knowledgeable about science and math
Plan the Research Lesson • Study existing lessons. • Building on the best available lessons, map out a unit that brings to life long-term goals for student development, and that will move students from their current understanding/knowledge to the place we'd like them to be. • Plan in detail one "research lesson" in that unit. As part of the planning, try out the lesson as adults and anticipate student thinking.	• Participants will be introduced to one inquiry teaching technique • Participants can be divided into groups, each of which will develop the skeleton of a unit based on the textbook, then select one lesson to plan carefully using the inquiry teaching strategy introduced by the trainer. • Participants will be required to include the Intel learning objects
Teach and Discuss the Research Lesson • One member teaches the lesson and other team members collect data as planned; observation protocols are used at this stage (see attached example).	• Conduct a post-lesson discussion. Structure the discussion agenda and consider the following conventions: o The teacher who taught the lesson speaks first and has the chance to point out any difficulties in the lesson before they can be pointed out by others. (Teachers need not criticize something that's already been pointed out as an issue.) o The lesson belongs to the whole study group; it is "our" lesson, not "your" lesson. o Discussion focuses on the data collected at the research lesson—on the students and lesson, not the teacher

Reflect and Re-teach, or Plan the Next Step	The focus at this stage is on the following: • Refining (changing) the lesson for possible re-teaching the lesson in another classroom? The focus is on • What went well in your lesson study effort, and what would you like to change next time around? • What new issues or problems came up that you would like to address in your next research lesson cycle?

Daily Schedule

The following is the daily schedule of the 2nd, 3rd, 4th, and 5th days of the workshop (December 27 – 31, 2009. Please note that the first day of the workshop was dedicated to refreshing participants mind regarding opening and using email accounts. In addition, they were introduced to Curriki which provides a discussion forum for participants of the INTALQ Project in Yemen

Time	Nature of task	Detailed description
8:30 – 10:30	Presentation by the trainers on a specific teaching method along with a demonstration (Day 1: Computers Day 2: |Inductive teaching Day 3: deductive teaching Day 4: Concept maps Day 5: Cooperative learning	• Participants observe and evaluate the teaching. In addition, they experience the lesson as students. Following the lesson, participants provided feedback to the presenters. • An observation form was used to evaluate each of the different teaching methods
10:30 – 11:00	• Break	
11:00 – 12:30	Participants are divided into teams of three to four members. Participants work on developing a lesson on a topic from the Grade 10 curriculum	• Participants are asked to use the Intel learning objects as an integral component of the lesson. • One science and one math team are required to present the lesson in the afternoon while the rest of the participants prepare to present their lesson in a gallery format to get feedback from their colleagues and the trainers.
12:30 – 1:30	• Prayer and lunch	
1:30 – 3:00	The two selected teams select one person to present the lesson.	• Participants attend the lesson as students; use the observation

		form to evaluate the teaching, and provide the presenters with feedback on their teaching by using the relevant observation forms.

Observations and Recommendations

1. Participants were very motivated and ready to implement the different teaching methods covered during the training. I was positively surprised with the attitudes and knowledge of a number of participants.
2. More emphasis needs to be put on integrating the Intel Learning Objects in the lesson plans. However, for this to happen, better computers and easy access to high speed Internet are needed, which was not the case in the training center where the training took place in Taiz. Similar situations may exist (and do exist) in schools according to many participants.
3. A concerted effort should be made to review the Intel Learning Objects because there are problems with a number of the objects. These problems were collected and provided to Dr. Tawfic for possible action.
4. The materials that I prepared for this training were not in the form of a manual. They were activities focused on practical teaching matters of lesson planning, teaching, receiving feedback, and reviewing lesson plans. These materials might not have been appropriate for the other trainers in Mukallah and Aden who might not have the intimate knowledge and familiarity with the materials that I had. If similar situations arise in the future I suggest that a longer pre-workshop training be done. The one-day pre-workshop training that was scheduled for this time (based on my recommendation) turned out to be much shorter than I expected. This happened for logistical reasons. Thus I recommend that a longer pre-workshop meeting be held in the future even if a detailed manual is available.
5. The translations were not of good quality. I suggest that a team of translators be contacted and contracted in the future. If these are not available in Yemen, then the materials could have been translated in other places, such as Egypt, where more and more skilled translators are available.
6. The MOE trainers who worked with me included one person who worked with me in Mukallah, a second science education trainer who has not had any experience in training in the INTALEQ project, and a computer education person. The person who

worked with me in Mukallah during the summer 2009 workshop was much more involved and proficient than the others. The fact that we worked together in a previous situation was beneficial for her since the on-job training that she received was cumulative. If a similar training happens in the future, I suggest keeping the training teams together (to the extent possible). This will make it easier for MOE trainers to develop the skills necessary to conduct training independently.