

**INTALIQ PROJECT (SCIENCE AND MATH TEACHERS)**  
**MUKKALA**  
**DECEMBER 26 - 31, 2009**

**PREPARED BY**  
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**Participants**

Participants in the training were 46 math and science teachers and supervisors and school principals from a selected number of schools in Mukalla, 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 team leader in Mukalla; the other three trainers were from the Ministry of Education. The three trainers complement each other skill and Adel Albaqaa was an asst with his rich experience in technology. Mohammad Abdel Ghafar is a good administrator for the CURRUKI site, and searching the Internet for material relevant to the training. I also lead the process of editing the training materials and share it on daily bases to other workshop venues in Aden, and Taaz.

**Training content and approach**

- 1) The course was not the first that the teachers involved in, however from day one we discovered that teachers either not used the CURRIKI and the INTALEQ resources, many of them do not have e mail address or forget their passwords and address which indicates that the use of the technology as a result of previous workshop is limited to non. A major challenge was to motivate trainers and show them how to update or renew their connection to the sites. The trainers team was very active and we start one hour earlier every day, and leave one hour later to provide support for those who struggle to get to open accounts and know how to use and get access to the portal sites.
- 2) The focus of this training was on using instruction approaches that are child centered and integrate learning objects in classroom instruction with focus on inductive teaching, deductive teaching, concept mapping and cooperative learning.

3) the methodology used in the training was based on hands-on work by the participants rather than on theoretical issues because most of these issues were addressed either in earlier training or during their university study.

### **Daily Schedule**

The following is the daily schedule of the workshop.

<b>Time</b>	<b>Nature of task</b>	<b>Detailed description</b>
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)	<ul style="list-style-type: none"> <li>• Participants observe and evaluate the teaching. In addition, they experience the lesson as students. Following the lesson, participants provided feedback to the presenters.</li> <li>• An observation form was used to evaluate each of the different teaching methods</li> </ul>
10:30 – 11:00	<ul style="list-style-type: none"> <li>• Break</li> </ul>	
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	<ul style="list-style-type: none"> <li>• Participants are asked to use the Intel learning objects as an integral component of the lesson.</li> <li>• 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.</li> </ul>
12:30 – 1:30	<ul style="list-style-type: none"> <li>• Prayer and lunch</li> </ul>	
1:30 – 3:00	The two selected teams select one person to present the lesson.	<ul style="list-style-type: none"> <li>• 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.</li> </ul>

### **Observations and Recommendations**

#### **A) Participants:**

- a) Teachers in Mukalla were very eager to learn, they come on time , although it was a school period and they have to cover the classes they miss at school, they remain in the training for all day long working hard to learn.
- b) The involvement of principals from the participating schools was a great idea and necessary, they participated actively in the program.

B) Training materials:

- a) The training material provided for trainers did not provide a clear guidance, it does not say the objective of the training and activities, also it was not enough to be considered as a useful resource for trainees. It was not a manual by all means , also it was not self sufficient to be read by trainees after the workshop. I suggest that a more organized training manual to be developed for next time (if any) with more details and examples. For example trainees need further guidelines for introducing students to concept mapping, along with a limited number of theoretical documents
- b) The Arabic translation of the material need to be done more professionally ( I took the initiative this time to edit the material and send it to other training sites on a daily bases) and much earlier than the starting days of the workshop, the material need to be revised and ready to be distributed before the workshop started. Akram El Saqqaf in Mukall from the El Awn was very helpful in making the copies available on time most of the cases.
- c) The Intel Learning Objects still strange in many teachers opinion to be integrated in classroom sessions. The Intel learning objects needs further revision. The colleagues from Yemen said that they have been asking for that for a long time but nothing moves.
- d) It was not realistic to expect that the lessons developed by the participants in this limited time and un matured experience to be included in the training material for future courses. More examples could have been prepared in advance.

C) Training venue:

- a) The computer lab and the site was great, large with enough computer (trainees /computer ratio was 2/1) The institution staff was very cooperative and the speed of the computers was enough for the workshop, power and internet was always there.

- b) Arrangements: the staff who made the arrangements were very professional and cares about the details namely Abdenour, Ameen, Abdechaffi, and Akram Saqaf (Mukalla) Their support and availability to respond to prompt demands made significant impact on the success of the workshop.
- c) Accomodation:: In Mukkalla I do not recommend the use of the Bustan Hotel (I am free from the 5 stars hotel disease, but can't tolerate the level of hygiene at that hotel let alone the mosquito

#### D) Preparation for the workshop:

It was not enough for the trainers in all districts to meet for a couple of hours, especially they have to travel on the same day. At least a one full day should be dedicated for trainers to prepare and reach a common understanding of the approach and responsibilities.

#### E) Course evaluation

- With the team in Mukalla we prepared an evaluation form at the end of workshop, the results shows that trainers still need further training on Inductive methodology, they do not feel that they are confident enough to use computers in technology (although their presentations on last day involved a lot of use of technology in teaching (some of them were limited to Power point presentations and few used interactive use of computer in instruction) see the questionnaire and the results at the end of this report.

#### F) Recommendations

- a) The training material needs to be revised, supported with more concrete examples of teaching methods, may be it is good to have a video of a class and make it a subject for evaluation based on a set of classroom observation standards. The model lesson will show how to integrate technology in teaching math or science. It will be very useful to have the video from inside some Yemeni classrooms by a trained and supervised by a trainer.
- b) For sustainability , it is important that the system in general and the supervisors in particular start to use the technology at least in communicating with teachers and encourage the use of Curriki as first step to get the network

between teachers starts, then at second stage to get them exchange experience about the use of the Intel objects and the school Yemen programs.

### **Appendix:**

The end of workshop evaluation results (Mukalla group)

End of Workshop Evaluation, Mukalla Dec 27-Dec 31, 2009						
<b>A) Questionnaire As a result of participating in this workshop I feel</b>	<b>Excellent</b>	<b>very good</b>	<b>Medium</b>	<b>Poor</b>	<b>Av.</b>	<b>%</b>
I know the induction approach in classroom instruction	12	30	4	0	3.2	0.79
I know the deduction approach in classroom instruction	12	30	4	0	3.2	0.79
I am able to develop concept mapping for my subject	13	23	10	0	3.1	0.77
I am able to apply cooperative learning in my classes	16	22	10	0	3.3	0.82
I gained skills in Curriki	19	19	7	1	3.2	0.80
I gained more skills in using SchoolYemen	24	17	5	0	3.4	0.85
I learned useful and new methods of lesson planning	19	23	4	0	3.3	0.83
I am able to practice the use of computer in instruction	13	18	25	0	3.4	0.85
I have more confidence that I can use computer in instruction	13	17	15	1	2.9	0.73
the trainers modeled teaching approaches that I can apply in my class	21	22	13	0	3.8	0.96
The examples provided through the workshop was practical and useful	27	18	1	0	3.6	0.89
I was given the opportunity to ask and learn	20	21	5	0	3.3	0.83
Sharing the training materials on the CURRIKI was a useful idea	36	8	2	0	3.7	0.93
<b>B) Major comments</b>						
It is hard to have a workshop whilst we teach at school,						
the thing they liked a lot is the emphasis on the use of Curriki ,						
The material to be distributed both as hard copy and soft copies is a good idea and useful						
We still in need for further training in how to use computer in teaching						
Trainers were very helpful and close to trainers						