United Nations Educational, Scientific and Cultural Organization

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THE HASHEMITE KINGDOM OF JORDAN
MINISTRY OF EDUCATION

QUEEN RANIA TEACHER ACADEMY
أكاديمية الملكة رانيا لتدريب المعلمين

الصندوق السعودي للتنمية
The South Fund For Development

Safeguard Education Quality for Students in Jordan: Blended Approach to Teacher Training (BATT)

Progress Report 5 July 2017 – October 2017

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1. Acronyms

BATT	Blended Approach to Teacher Training
CISLE	Cultivating Inclusive and Supportive Learning Environment
KPI	Key Performance Indicator
MENA	Middle East and North Africa
M&E	Monitoring and Evaluation
MoE	Ministry of Education
MOOC	Massive Open Online Course
ToT	Training of Trainers
QRTA	Queen Rania Teacher Academy
UNESCO	Unite Nations Educational, Scientific, and Cultural Organisation

2. Project overview

Due to the educational challenges experienced by students and teachers in Jordan's public schools as a result of the aftermath of the Syrian conflict and the consequential refugee crisis in Jordan, QRTA worked in collaboration with UNESCO to implement a number of projects to offset the shortcomings in the education sector and address the educational needs of the children and teachers and enhance the overall quality of education in the Kingdom. The initial collaboration between QRTA and UNESCO was a project titled "*The Emergency Support to Safeguard Education Quality for Syrian Students in Jordan"* which prompted a large scale awareness of the psycho-social problems teachers in Jordan's school were encountering in their classrooms as a result of the Syrian crisis. A noteworthy repercussion of the initial UNESCO/QRTA project prompted the formation of a large scale intervention project by QRTA titled: *Cultivating Inclusive and Supportive Learning Environments* (CISLE) funded by USAID. The CISLE project was founded on the psychosocial principles of the UNESCO/QRTA project and expanded on the initial training component to incorporate community based activities and Arabic Reading and Writing Network.

With such positive repercussions linked to the accomplishments and positive impressions of the initial project, UNESCO and QRTA have partnered to stimulate a second phase and augment the original project by developing a technologically Blended Approach to Teacher Training (BATT) project that will substantially increase the project outreach and strengthen its deliverables. The impetus for the BATT project is motivated by the need to enhance the materials and ideologies of the initial project, incorporate a specialized science and math component and reach a wider audience of teachers within Jordan and in due course, ultimately, educators across the Middle East and North African (MENA) region. The project's design and implementation will be applied in two stages. The first stage, which is the focus of this project, concentrates on developing and piloting a blended approach to the training course. The second stage will involve exploring opportunities to scaling up and extending the training to a large number of teachers across Jordan. To elaborate, the pilot program covers three content areas: Psychosocial and interactive Pedagogy Modules which are funded by the European Union, Mathematics Modules and Science Modules which are funded by The Saudi Fund for Development; each of these modules incorporates four different components that encompass the following: online component, face-to-face component, assessment and examination component and a monitoring and evaluation component. These three BATT programs have the potential to achieve the goal of maintaining the quality of teaching and learning by equipping teachers with the conceptual (mathematical and scientific) in secondary education schools and situational skills (psychosocial and interactive) necessary to support students in the classrooms.

Consequently, the pilot will strive to achieve the bellow outcomes:

1- Enhanced pedagogical and psychosocial training material.
2- Improved perception of teachers towards blended training methodology.
3- Equip teachers with practices in effective teaching and psychosocial support methods.
4- Developed materials in concept based secondary school math and science courses.
5- Equip Secondary school teachers with concept based teaching practices in math & science.

3. Progress update

The BATT program is designed to provide a blended approach training course to build teachers' capacity in delivering quality education to promote a safe, supportive, healthy and inclusive learning environment and a conceptual approach towards teaching secondary Math and Science.

During the course of the BATT pilot, QRTA has successfully achieved all its intended outputs. The current report covers the fifth and final reporting period starting from July 2017 till October 2017. QRTA completed all of its deliverables as stated below:

- Design the technological platform: QRTA leveraged EDRAAK's expertise in developing the online component for all 3 BATT modules.
- Design and develop BATT modules: the psychosocial and pedagogy material which was based on the material developed for "The Emergency Support to Safeguard Education Quality for Syrian Students in Jordan" project was revised and enriched with additional resource material, and the Math and Science material was developed based on the education gaps present in secondary schools.
- Select schools, teachers and coaches: QRTA conducted 4 awareness meeting to select participants for the program.
- Deliver training for coaches: QRTA conducted several coaching sessions for each of the selected coaches for the psychosocial and pedagogy (5-day training), math and science (3-day training for each) to build the capacity of Ministry of Education (MoE) supervisors/coaches.
- Deliver online BATT modules: each of the math and science participants completed 4 online modules and psychosocial and pedagogy participants completed 6 online modules.
- Deliver face – to – face training workshops: each of the math and science modules completed 4 face – to – face training workshops, psychosocial and pedagogy participants completed 6 face – to – face training workshops, and math extension participants completed 2 condensed fa-to-face workshops (3 hours each).
- Onsite teacher support: the coaches with the support of QRTA team conducted school visits to each of the participants.

- Revise BATT modules: upon the completion of the BATT training, the material was revised and amended to incorporate feedback and lessons learned. There was a slight delay in conducting the material revision for the Math and Science modules to allow enough time for the BATT team to consolidate feedback and lessons learned and contract the right consultant.

3.1. Design the technological platform

Provided that EDRAAK is based on EdX, a massive open online course (MOOC) provider and online learning platform and offers an open-source software that gives users the flexibility to use and/or modify as fit, QRTA has leveraged EDRAAK's expertise in developing online courses. Consequently, QRTA and EDRAAK have teamed up to work on the online component of the three BATT programs: psychosocial and interactive pedagogy modules, science modules, and mathematics modules. This collaboration helped create an essential component of the BATT pilot which included the design and development of interactive online training sessions and an online discussion board.

QRTA with the assistance of EDRAAK videotaped classed and lectures for each of the 6 psychosocial and pedagogy modules, 4 math modules and 4 science modules. Each of these modules was posted on EDRAAK's platform as part of the online training. Not only this, QRTA also worked with EDRAAK's team to boost teachers and encourage them to participate; a report showing the participants engagement and progress was created and shared with each participant. This aimed at encouraging the participants to get more engaged on EDRAAK's platform.

3.2. Design, develop and revise BATT modules

3.2.1. Design and develop BATT modules

The BATT program is designed with the intent to incorporate the maximum amount of teacher engagement with the content and materials. Having this said, the content was presented in an engaging and collaborative manner to capture teachers' interest in the teaching strategies applied, promote retention of those strategies and encourage teachers' interaction and engagement.

For the psychosocial and interactive pedagogy modules, QRTA based the content on the material developed for "The Emergency Support to Safeguard Education Quality for Syrian Students in Jordan" project. QRTA reviewed the six modules for the psychosocial and pedagogy (3 psychosocial modules and 3 pedagogy modules) with the assistance of 3 consultants who have also reviewed and enriched the material. The material for the face-to-face component and

the online component for the psychosocial and pedagogy BATT were finalized by February 2016.

As for the Mathematics and Science BATT, QRTA designed and develop these modules based on the educational needs of teachers and students and concentrated on developing certain concepts that have proven to be problematic for secondary students to learn and secondary teachers to teach. Nevertheless, given the specific nature of science for secondary education and the need to have the training activities aligned with the specific content, QRTA in consultation with UNESCO identified Physics as an area of focus for the Science BATT course. In order to identify the difficult concepts and educational gaps, QRTA organized two focus groups, one concerning the mathematics modules and one concerning the science modules. These focus groups consisted of a university professor, private and public school teachers as well as subject specific MoE supervisors; in addition, participants in the focus group were from the north, middle and southern directorates. In light of this, a consultant, 2 public school teachers and 1 private school teacher for each of math and science worked with the support of QRTA's math and science teams to develop the material. By the end of November 2016, the team and consultants finalized 30 hours of face-to-face material for each of the 4 science and 4 math modules and completed the trainer and trainee booklets for both science and math. Table 1 shows the titles of each of the modules for the psychosocial, pedagogy, math and science modules.

Table 1: *revised/ developed modules for psychosocial, pedagogy, math and science modules*

BATT modules	Module titles
Psychosocial Modules	*Module 1:* Psychosocial Support and Supportive Communication *Module 2*: Refugees' Community and Protection Against Violence *Module 3*: Behaviour Modification
Pedagogy Modules	*Module 4:* Classroom Management *Module 5:* Interactive Learning *Module 6:* Formative Assessment
Math Modules	*Module 1:* Pre-secondary Math (functions) *Modules 2*: Limits and Differentiation *Module 3:* Integration *Module 4:* Applications of Derivatives and Integrals
Science/Physics Modules	*Module 1*: Mechanics 1: Kinematics and Dynamics *Module 2*: Mechanics 2: Work and Energy, Linear Momentum, Angular Momentum, Torque *Module 3:* Electricity: Static Electricity, Gauss's

	Law, Capacitors, Direct Current Circuits *Module 4:* Magnetism and Modern Physics: Magnetic Induction, Atomic and Nuclear Physics

3.2.2. Review, evaluate and selection additional resource material

QRTA adopted the material for the psychosocial and interactive pedagogy BATT that was developed and used in the earlier project titled "The Emergency Support to Safeguard Education Quality for Syrian Students in Jordan". This material was refined to suite the implementation and delivery of the blended approach project. Nonetheless, QRTA's team used over 100 additional resource materials to enrich and support the psychosocial and interactive pedagogy modules.

As for the Math and Science/Physics modules, QRTA conducted focus groups to identify the areas and educational gaps that have proven to be problematic for the math and science secondary education and developed the material accordingly. Consequently, QRTA's math and science teams with the assistance of consultants supported the newly developed material with over 70 additional math resources and over 70 science resources.

Additional resource material for psychosocial, pedagogy, math and science/physics modules is listed in annex A.

3.2.3. Revise BATT modules

After completing the delivery of 3 BATT modules and in order for the pilot to be effective and efficient, QRTA worked on revising the material to incorporate the necessary feedback, amendments and lessons learned. This included improving both the online and face-to-face content. Having said this, after the psychosocial and pedagogy training concluded, QRTA worked with a consultant to review and improve the material. Furthermore, given that the math and science/physics modules concluded the training by the end of May 2017, during the current reporting period QRTA contracted 2 consultants to review and finalize the material revision; this activity was slightly delayed to allow enough time for the BATT team to consolidate feedback and lessons learned and find the right consultant. This included revising the online material, pre and post-tests, the final exam and enriching the discussion assignments presented on EDRAAK's platform. Not only this, QRTA also hired an Arabic Expert who revised and audited the language of the material for the online platform.

3.3. Teacher training and school selection

3.3.1. Select Schools

The overarching goal of the program is to build the situational (psychosocial and interactive pedagogies) and conceptual skills (mathematical and scientific) of teachers to deliver quality education for all students. Provided that the BATT program is in the pilot stage, QRTA targeted the northern, southern and central regions of the Kingdom. Accordingly, QRTA conducted 4 awareness meetings and selected Qasabet Amman to implement the psychosocial and pedagogy modules, Qasabet Irbid and Qasabet Amman to implement the math modules and Qasabet Al-Karak and Al-Mazar Al-Janoubi to implement the science modules. QRTA has a total of 150 teachers, thus achieving 136% of its targeted teachers.

To elaborate, QRTA selected schools based on their size and number of teachers where QRTA targeted big schools with large number of teachers and those who are motivated and interested in participating in the training. For the science module, the team selected two directorates in Al-Karak due to the insufficient number of secondary science teachers in Qasabet Al-Karak. As for the Math module, the team added a new directorate (Qasabet Amman) due to the high demand and great interest that teachers expressed in the program. Table 2 shows the number of participants for each module.

Table 2: *Number of participants per BATT module disaggregated by gender*

BATT Module	Directorate	Participants			Total number of schools
		Male	Female	Total	
Psychosocial and pedagogy modules	Qasabet Amman	10	62	72	14
Science/ Physics modules	Qasabet Al Karak	8	12	20	18
	Al-Mazar Al-Janoubi	7	5	12	9
Math modules	Qasabet Irbid	12	20	32	24
	Qasabet Amman	2	12	14	12

3.3.2. Training of trainers /coaches

Provided that teachers will be trained and supported by specialized coaches, QRTA has selected 10 Education Supervisors to serve as teacher coaches in the program (4 coaches for the psychosocial and pedagogy modules from Qasabet Amman, 3 coaches for the math modules from Qasabet Irbid and 1 coach from Qasabet Amman, and 2 coaches for the science modules one from Qasabet Karak and one from Al-Mazar Al-Janoubi). QRTA worked on

building the capacity of these coaches where the 4 coaches for the psychosocial and pedagogy modules received 5-days (20 hours) training on psychosocial and pedagogy modules and the 3 math coaches and 2 science coaches each received a 2-day (12 hours) training session. Additionally, QRTA's math and science managers conducted a refreshment meeting with the coaches to make sure that both the supervisors/coaches and teachers are getting the utmost support and advantage of the training provided (refer to table 3). It is worth noting that the total number of trained coaches/supervisors for the science modules was less than the originally planned number due to the limited number of physics supervisors in the targeted directorates.

Table 3: *coaching MoE supervisors on math, science and psychosocial and pedagogy modules*

Directorate	BATT modules	Number of meetings conducted	Gender of ToT workshop participants		
			Total	Male	Female
Qasabet Amman	Psychosocial and Pedagogy	5	4	3	1
	Math Extension	1	1	1	0
Qasabet Irbid	Math	3	3	3	0
Qasabet Karak	Science	3	1	0	1
Al-Mazar Al-Janoubi			1	1	0

3.3.3. Deliver online modules and face-to-face workshops

The blended approach to teacher training and learning which is viewed as a combination of face-to-face and online delivery methods has proven to influence teachers' perceptions of the learning environment and subsequently their teaching practices. One of the main benefits of such an approach is to offer participants the opportunity to learn at their own pace, reflect on their learning while participating and sharing ideas and experiences with their colleagues in an open, friendly and conducive learning environment. QRTA achieved 144% of its targeted teachers to be trained on psychosocial and pedagogy, 153% of its targeted math teachers and 107% of its targeted science teachers.

The mechanism used to implement a blended training approach was uploading each module on EDRAAK's platform then conducting the face-to-face training with a window of 3-4 weeks between the online and face-to-face training to allow teachers to apply new strategies. Consequently, QRTA uploaded the online modules and conducted the face-to-face training for the psychosocial, pedagogy, math and science modules as specified in table 4.

Table 4: *online and face-to-face training dates*

Module type	Module name	Online training date	Face-to-face training date
Psychosocial Modules	Module 1: Psychosocial Support and Supportive Communication	21-Feb-16	15-Mar-16
	Module 2: Refugees' Community and Protection Against Violence	28-Mar-16	18-Apr-16
	Module 3: Behaviour Modification	25-Apr-16	23-May-16
Pedagogy Modules	Module 4: Classroom Management	28-Aug-16	4-Oct-16
	Module 5: Interactive Learning	6-Oct-16	25-Oct-16
	Module 6: Formative Assessment	1-Nov-16	27-Nov-16
Math Modules	Module 1: pre-secondary Math (functions	2-Nov-16	30-Nov-16
	Module 2: Limits and Differentiation	8-Feb-17	26-Feb-17
	Module 3: Integration	14-Mar-17	3-Apr-17
	Module 4: Applications of Derivatives and Integral	13-Apr-17	3-May-17
Science/ Physics Modules	Module 1: Mechanics 1: Kinematics and Dynamics	2-Nov-16	28-Nov-16

	Module 2: Mechanics 2: Work and Energy, Linear Momentum, Angular Momentum, Torque	8-Feb-17	27-Feb-17
	Module 3: Electricity: Static Electricity, Gauss's Law, Capacitors, Direct Current Circuits	14-Mar-17	4-Apr-17
	Module 4: Magnetism and Modern Physics: Magnetic Induction, Atomic and Nuclear Physics	13-Apr-17	2-May-17
Math Extension	Module 1: pre-secondary Math (functions	7-Apr-17	22-May-17
	Module 2: Limits and Differentiation	14-Apr-17	
	Module 3: Integration	21-Apr-17	23-May-17
	Module 4: Applications of Derivatives and Integral	28-Apr-17	

Due to the high demand and interest, QRTA extended the math training and selected teachers from Qasabet Amman to participate in the training. The training mechanism used for the math extension followed a condensed timeline (one month and a half); the modules were uploaded on EDRAAK's platform on a weekly basis and 2 face-to-face trainings (3 hours each) were conducted (one for modules 1 and 2 together and one for modules 3 and 4).

By the end of each of the BATT modules, teachers who are eligible for the MoE exam were nominated to take the exam. For the psychosocial and pedagogy modules 67 out of the 72 participants passed the exam, for the math module 43 teachers took the exam and 42 passed the exam, and for the science module 31 took the exam and 21 teachers passed. Table 5 depicts further details.

To conclude the program, teachers who passed the exam, attended a graduation ceremony; the psychosocial and pedagogy graduation was held on 18 May 2017, Math was held on 4 October 2017 for Qasabet Irbid and 5 October 2017 for Qasabet Amman, and the Science graduation was held on 2 October 2017.

Science graduation ceremony

Table 5: *Number of participants who passed the MoE exam*

Module	Exam dates	Teachers eligible for the exam	Teacher who passed the exam		
			Total	***Male***	***Female***
Psychosocial and pedagogy	18 February, 11 &14 March 2017	70	67	6	61
Math	22 August and 10 September 2017	43	42	15	27
Science	22 August, 10 & 14 September 2017	31	21	8	13

3.3.4. Onsite teacher support

During one of the school visits in Karak

To support the project's sustainability and in an effort to continue building the capacity of the Ministry's staff, QRTA selected and prepared a number of MoE supervisors in each of the directorates that the BATT project was implemented in. These supervisors helped monitor and offer support and guidance for teachers. Throughout the pilot, the trained coaches along with QRTA team conducted onsite support visits to provide teachers with feedback and assistance. Table 5 shows the total number of school visits conducted.

Table 5: *total number of school visits for each BATT module*

Module type	Directorate	Targeted number of school visits	Actual number of School Visits
Psychosocial Modules	Qasabet Amman	42	64
Pedagogy Modules	Qasabet Amman	42	42
Math Modules	Qasabet Irbid	96	114
Math Extension	Qasabet Amman	12[1]	14
Science Modules	Mazar Janoubi & Qasabet Karak	108	95

3.4. Monitoring and Evaluation

Monitoring and evaluation activities kept on-going during the reported period to ensure implementation is conducted towards achieving the planned objectives and results. QRTA has

[1] Due to the shorter implementation period of the math extension, each module was launched on a weekly basis and the face to face took place for 3 hours for each two modules. Provided that there were 12 schools, each school was visited at least once due to the short period for the extension.

put several measures to do so with the assistance of QRTA's M&E team. Accordingly, QRTA's M&E Department is following up on measuring the impact of the BATT program and assessing the progress of educators in term of improved knowledge and satisfaction of delivered training service. ***All project indicators have been completed and achieved with 100% achievement rate*** and the below table (5) presents the achieved progress for each outcome based on the indicators identified in the project design matrix.

Table (5): BATT Project Monitoring & Evaluation Framework

#	Outcomes	Questions	Sub-questions	Measure/ Indicator training material?	Target	Baseline	Design	Data Source	Sample	Data Collection Tool	Data Analysis	Comments
1	Enhanced pedagogical and psychosocial training material	How is the training material enhanced?	1.1: Is the text more organized compared to the previous (current) training material? (segregated by psychosocial and pedagogy)	1.1.1: Organization level of training material	Blended (online and face to face) training material	Current QRTA/ UNESCO training material	One shot review	Training materials Project documents	Whole material	Checklist	N/A	Completed. 3 Psychosocial & 3 Pedagogy modules; the face-to-face and online component were enriched and finalized
			1.2: Is the content focused on practical classroom experiences? (segregated by psychosocial and pedagogy)	1.2.1: Content development level of training material	Blended (online and face to face) training material	Current QRTA/ UNESCO training material	One shot review	Training materials Project documents	Whole material	Checklist	N/A	Completed. Videotaping was finalized for lectures and classes for the 3 psychosocial modules and the 3 pedagogy modules
			1.3: Does the online material promote participants' engagement? i.e. adequate assignments, self-assessments etc. (segregated by psychosocial and pedagogy	1.3.1: Adequate assignments and self-assessment tools	Blended (online and face to face) training material	Current QRTA/ UNESCO training material	One shot review	Training materials Project documents	Whole material	Checklist	N/A	Completed. The online training material for the psychosocial and pedagogy modules include self-assessment test, questions & discussions, and module assignments to be implemented by the participants inside the classrooms
2	Improved perception	Were the teachers	2.1: Did the participants complete the whole program?	2.1.1: Percentage of teachers completing the	80% of teacher	N/A	One shot review	Project documents Exam	50 teachers	Documents review	Basic descriptive/ statisti	Completed. Psychosocial and Pedagogy: 99% (91% females and 9% males) of participants who sat for the MoE exam passed the

#	Outcomes	Questions	Sub-questions	Measure/ Indicator training material?	Target	Baseline	Design	Data Source	Sample	Data Collection Tool	Data Analysis	Comments
	of teachers towards blended training methodology	satisfied with the methodology used?	(segregated by sex, psychosocial and pedagogy)	whole program[2] (segregated by sex, psychosocial and pedagogy)				records Attendance sheets			cal analysis	exam. This is 67 out of 68 (61 females and 6 males). 4 participants completed the training program however; chose not to take the MoE exam
			2.2: Did the teachers find the blended methodology/content useful? (segregated by sex, psychosocial and pedagogy)	2.2.1: Participants' level of Satisfaction of the program (segregated by sex, psychosocial and pedagogy)	60% of participants reporting satisfaction level 3 and above on a scale of 1-5	N/A	End of program Post-Survey	Satisfaction Survey results	50 teachers	Satisfaction survey	Satisfaction level	Completed. Psychosocial and Pedagogy: response rate was at 82%. Participants' level of satisfaction was at 82% in total and it was also 82% for both females and males
3	Equip teachers with practices in effective teaching and psychosocial support methods.	Have the teachers been equipped with knowledge about practices in effective teaching	3.1: Has the program equipped teachers with enhanced knowledge about psychosocial support methods? (segregated by sex)	3.1.1: Teachers reporting increased level of knowledge in psychosocial support skills (segregated by sex)	60% of teachers reporting increased level of knowledge	44%	Pre and post assessment	Participants pre and post assessment results	50 teachers	Pre and post assessment	Analysis of assessment results	Completed. Psychosocial: 72% of participants passed the post assessment; an increase of 63% from the baseline 44%. Females results increased from 43% to 76%, representing a 75% increase; while males' results remained the same at 50%[3]
			3.2: Has the program equipped teachers with	3.2.1: Teachers reporting	60% of teachers reporting	74%	Pre and post	Participants pre and	50 teachers	Pre and post assess	Analysis of assess	Completed. Pedagogy: 91% of participants passed the post assessment; an increase of

[2]Completion Rate means teachers who attended the program and took the exam NOT teachers who only attended the program.
[3] Explanation for this is described in the narrative section below.

#	Outcomes	Questions	Sub-questions	Measure/ Indicator training material?	Target	Baseline	Design	Data Source	Sample	Data Collection Tool	Data Analysis	Comments
		and psychosocial support methods	enhanced knowledge about pedagogical skills? (segregated by sex)	increased level of knowledge in pedagogical skills (segregated by sex)	increased level of knowledge		assessment	post assessment results		ment	ment results	24% from the baseline 74%. Females results increased from 78% to 93%, representing a 19% increase; while males results increased from 40% to 80%, representing a 100% increase
4	Developed materials in concept based secondary school math and science courses	How well was the training material developed?	4.1 Are the secondary math and science priority concepts identified? (segregated by math and science)	4.1.1 Identification of secondary math and science priority concepts (segregated by math and science)	Blended online and face-to-face training material	NA	One shot review	Training materials Project documents	Whole material	Checklist	NA	Completed. 2 Focus groups were organized; 1 for math and 1 for science, educational gaps were identified and the training material was developed and deployed to participants
			4.2 Are the math and science modules developed and implemented? (segregated by math and science)	4.2.1 Number of math and science modules developed and implemented	Blended (online and face to face) training material	NA	One shot review	Training materials Project documents	Whole material	Checklist	N/A	Completed. 4 Modules were developed and implemented for Math 4 Modules were developed and implemented for Science

#	Outcomes	Questions	Sub-questions	Measure/ Indicator training material?	Target	Baseline	Design	Data Source	Sample	Data Collection Tool	Data Analysis	Comments
5	Equip Secondary school teachers' with concept based teaching practices in math & science.	Have Secondary school teachers been equipped with knowledge about concept based teaching practices in math & science?	5.1 Did the teachers report increased knowledge in using concept based practices in teaching secondary math and science? (segregated by, sex, math and science)	5.1.1 % of teachers reporting increased knowledge in using concept based practices in teaching secondary math and science (segregated by sex, math and science)	60% of teachers reporting increased level of knowledge	56% Math 26% Science	Pre and Post assessment	Participants pre and post assessment results	30 Math teachers 30 Science teachers	Pre and post assessment	Analysis of assessment results	Completed. Math: 69% of participants passed the post assessment; an increase of 22% from the baseline 56%. Females results increased from 55% to 65%, representing a 18% increase; while males' results increased from 58% to 75%, representing a 29% increase Science: 53% of participants passed the post assessment; an increase of 100% from the baseline 26%. Females results increased from 31% to 54%, representing a 75% increase; while males' results increased from 17% to 50%, representing a 100% increase
6	Improved perception of teachers towards blended training methodology	Were the teachers satisfied with the methodology used?	6.1: Did the participants complete the whole program? (segregated by sex, math and science)	6.1.1: Percentage of teachers completing the whole program[4] (segregated by sex, math and science)	80% of teachers	N/A	One shot review	Project documents Exam records Attendance sheets	30 Math teachers 30 Science teachers	Documents review	Basic descriptive/ statistical analysis	Completed. Math: 100% (68% females and 32% males) of participants who sat for the MoE exam passed the exam. This is 38 out of 38 (26 females and 12 males). 8 participants completed the training program however; chose not to take the MoE exam Science: 67% (61% females and 39% males) of participants who sat for the MoE exam passed the exam. This is 18 out of 27 (11 females and 7 males). 5 participants completed the training

[4]Completion Rate means teachers who attended the program and took the exam NOT teachers who only attended the program.

#	Outcomes	Questions	Sub-questions	Measure/ Indicator training material?	Target	Baseline	Design	Data Source	Sample	Data Collection Tool	Data Analysis	Comments
												program however; chose not to take the MoE exam
			6.2: Did the teachers find the blended methodology/content useful? (segregated by sex, math and science)	6.2.1: Participants' level of Satisfaction of the program (segregated by sex, math and science)	60% of participants reporting satisfaction level 3 and above on a scale of 1-5	N/A	End of program Post-Survey	Satisfaction Survey results	30 Math teachers 30 Science teachers	Satisfaction survey	Satisfaction level	Completed. Math: response rate was at 83% and level of satisfaction was at 80% in total. Females at 78% and males at 85% Science: response rate was at 88% and level of satisfaction was at 83% in total. Females at 82% and males at 84%

<u>Outcome 1:</u> Enhanced pedagogical and psychosocial training material

- 1.1.1: Organization level of training material

3 psychosocial and 3 pedagogy modules which were adapted and enriched from the "Emergency Support to Safeguard Education Quality for Syrian Students in Jordan" Project; the face-to-face and online component for the 6 modules were finalized and deployed.

- 1.2.1: Content development level of training material

Videotaping was finalized for lectures and classes for the 3 psychosocial modules and the 3 pedagogy modules, and was deployed on the training platform.

- 1.3.1: Adequate assignments and self-assessment tools

The online training material for the psychosocial and pedagogy modules include self-assessment test and engagement questions and discussions, which promote the participants to reflect on their answers to the questions raised, and their readings, and their observations in the light of online videos.

<u>Outcome 2:</u> Improved perception of teachers towards blended training methodology

- 2.1.1: Percentage of teachers completing the whole program

Psychosocial and Pedagogy: Out of the 72 participants who completed the training program 68 applied for MoE exam and 67 from them passed the exam which represent 99% completion rate (91% females and 9% males).

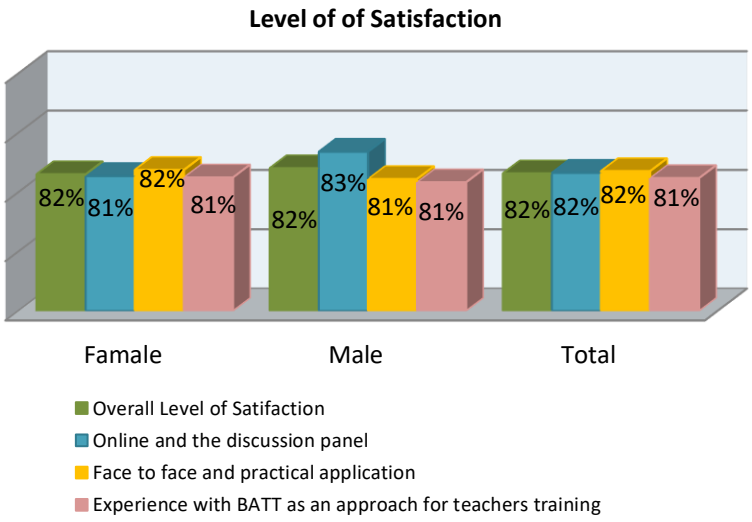
- 2.2.1: Participants' level of Satisfaction of the program

Psychosocial and Pedagogy: An end of program satisfaction survey was developed and deployed to participants in an attempt to see how they found the BATT experience. 80% of participants who responded to the satisfaction survey indicated that the program was their first experience with online approach for training. The overall results indicate that they have enjoyed it and found it a good learning experience. The overall level of satisfaction was at 82% which exceeded the set target of 60% and was measured through 3 main domains that are:

1. The online and the discussion panel: 82%
2. The face to face and practical application: 82%
3. The experience with BATT as an approach for teachers training: 81%

Classification per Sex

- Females: 82%
- Males: 82%



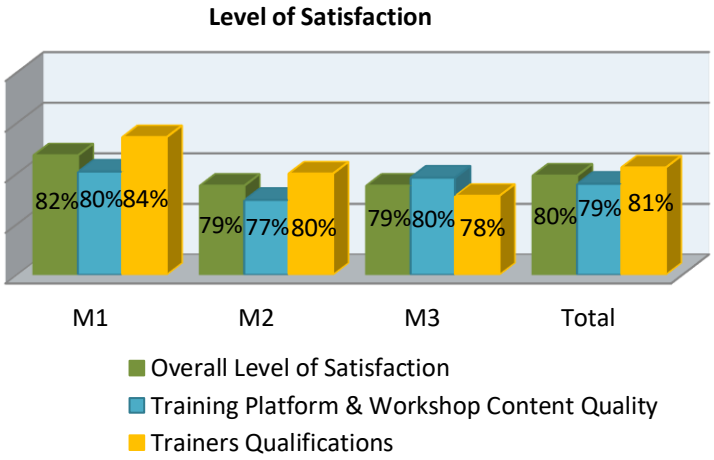
More to the indicators in the M&E framework, QRTA also measure the level of satisfaction of training modules quality where participants are requested to complete a feedback form after each module. Level of satisfaction is measured by 2 main domains:

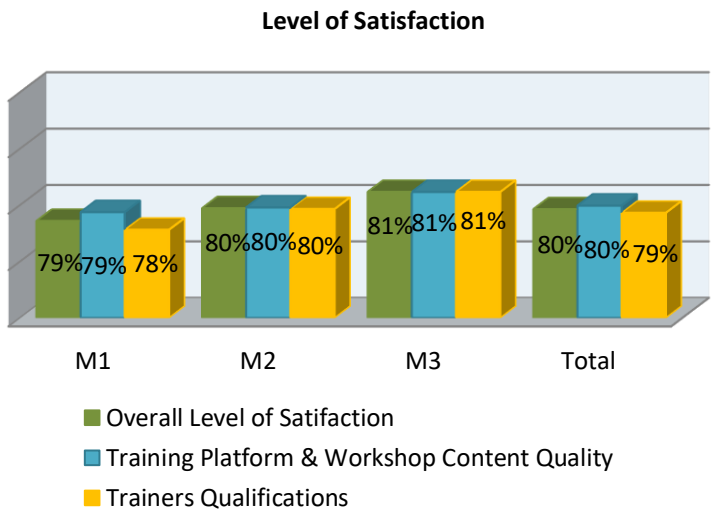
1. Training Platform and Workshop Content Quality
2. Trainers Qualifications

Psychosocial

Classification per Module:

- Module 1: 82%
- Module 2: 79%
- Module 3: 79%

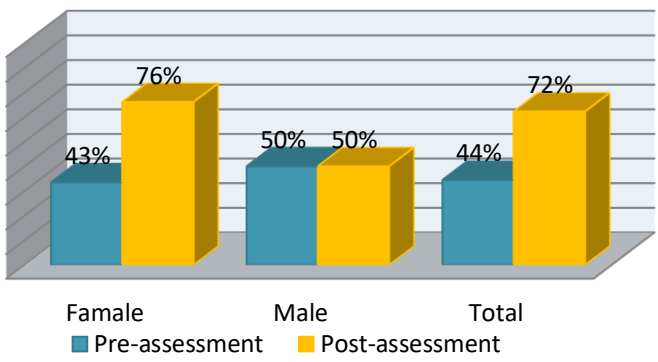


Pedagogy Classification per Module: - Module 1: 79% - Module 2: 80% - Module 3: 81%	

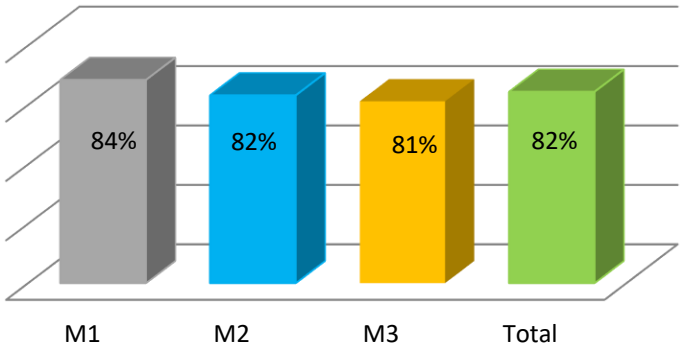
<u>Outcome 3:</u> Equip teachers with practices in effective teaching and psychosocial support methods

- 3.1.1: Teachers reporting increased level of knowledge in psychosocial support skills

At the pre-assessment phase for Psychosocial, 44% of participants passed the exam (females 43% and males 50%). At the post-assessment phase 72% of participants passed the exam (females 76% and males 50%). This is an increase of 63% from the baseline in their knowledge. Females' results increased from 43% to 76%, representing a 75% increase; while males remained the same at 50% participants passing the exam for both pre and post assessment. The total number of male participants who completed the pre/post assessment for Psychosocial was 8 and 4 of them only passed the pre-assessment which mean that our baseline for knowledge was 50%. Then when we deployed the post assessment, again only 4 out of the 8 male participants passed the post-assessment which is again 50% that is why we don't have an increase in the level of change for males because the number of male participants who passed the test did not increase from pre to post. This is not a fixed % all the time but it's fixed only for this case. Our assumption also is that these teachers may not have been among the ones who were keen to attend every activity in the program. The below graph illustrates the Pre-Post assessment results.

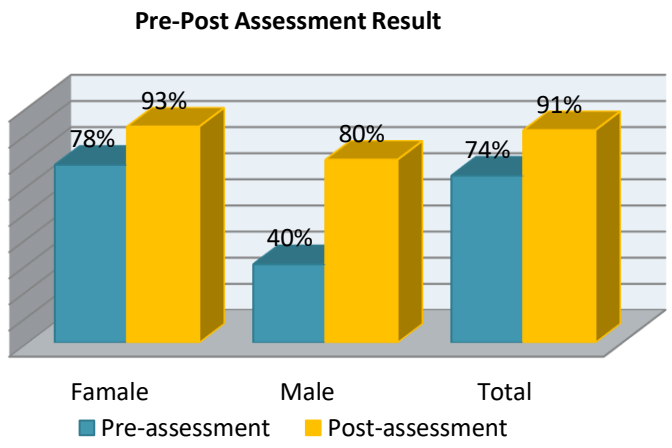
Psychosocial Pre assessment per Sex: – Females: 43% – Males: 50% Post assessment per Sex: – Females: 76% – Males: 50%	

More to the indicators in the M&E framework, QRTA also measure the level of knowledge acquired from the training modules trough the feedback forms as illustrated in the graph below:

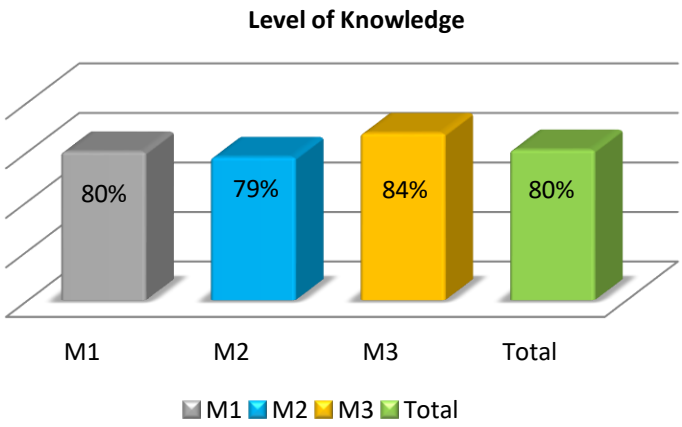
Psychosocial Classification per Module: – Module 1: 84% – Module 2: 82% – Module 3: 81%	

- 3.2.1: Teachers reporting increased level of knowledge in pedagogical skills

At the pre-assessment phase for Pedagogy, 74% of participants passed the exam (females 78% and males 40%). At the post-assessment phase 91% of participants passed the exam (females 93% and males 80%). This is an increase of 24% from the baseline in their knowledge. Females' results increased from 78% to 93%, representing a 19% increase; while males' results increased from 40% to 80%, representing a 100% increase. The below graph illustrates the Pre-Post assessment results.

Pedagogy Pre assessment per Sex: – Females: 78% – Males: 40% Post assessment per Sex: – Females: 93% – Males: 80%	

More to the indicators in the M&E framework, QRTA also measure the level of knowledge acquired from the training modules trough the feedback forms as illustrated in the graph below:

Pedagogy Classification per Module: – Module 1: 80% – Module 2: 79% – Module 3: 84%	

<u>Outcome 4:</u> Developed materials in concept based secondary school math and science courses

- 4.1.1 Identification of secondary math and science priority concepts (segregated by math and science)

QRTA conducted 2 focus groups, 1 concerning the mathematics modules and 1 concerning the science modules. During the focus groups the team identified the educational gaps and acknowledged the areas that have proven to be problematic for math and science secondary educators and working on the material development with the assistance of consultants to bridge the gaps.

- 4.2.1 Number of math and science modules developed and implemented

The team developed and implemented the 4 math modules and the 4 science modules and participants in each subject have completed the training program.

Outcome 5: Equip Secondary school teachers' with concept based teaching practices in Math & Science

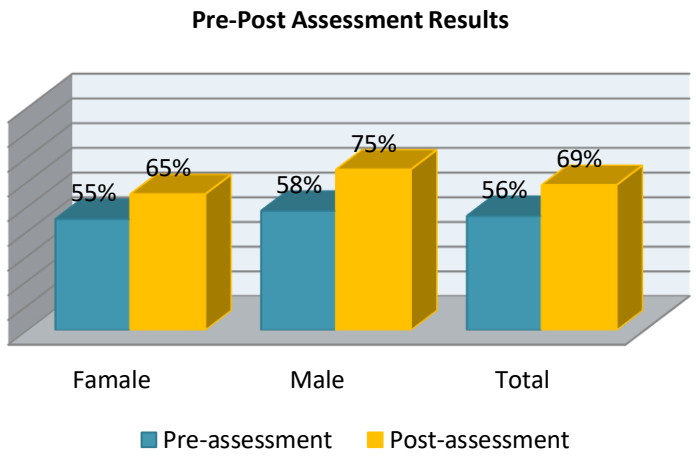
- 5.1.1 % of teachers reporting increased knowledge in using concept based practices in teaching secondary math and science

At the pre-assessment phase for Math, 56% of participants passed the exam (females 55% and males 58%). At the post-assessment phase 69% of participants passed the exam (females 65% and males 75%). This is an increase of 22% from the baseline in their knowledge. Females' results increased from 55% to 65%, representing an 18% increase; while males' results increased from 58% to 75%, representing a 29% increase. The below graph illustrates the Pre-Post assessment results.

Math

Pre assessment per Sex:
- Females: 55%
- Males: 58%

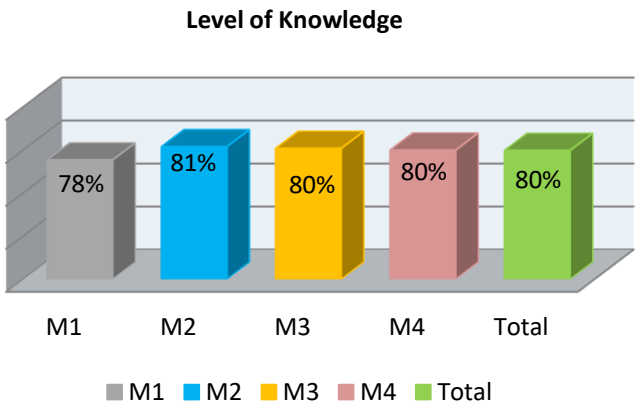
Post assessment per Sex:
- Females: 65%
- Males: 75%



More to the indicators in the M&E framework, QRTA also measure the level of knowledge acquired from the training modules through the feedback forms as illustrated in the graph below:

Math

Classification per Module:
- Module 1: 78%
- Module 2: 81%
- Module 3: 80%
- Module 4: 80%

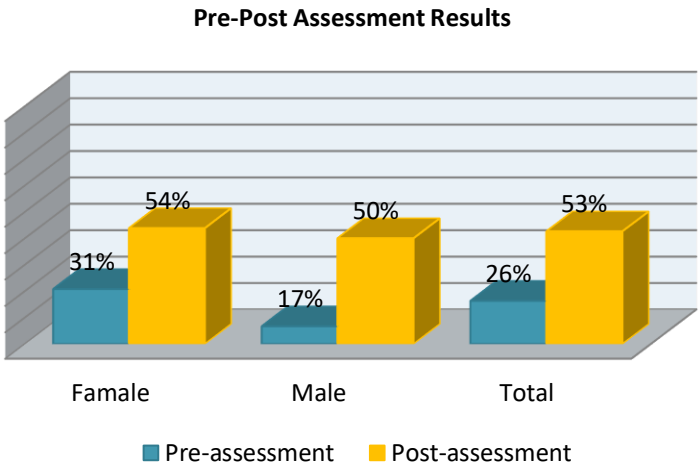


At the pre-assessment phase for Science, 26% of participants passed the exam (females 31% and males 17%). At the post-assessment phase 53% of participants passed the exam (females 54% and males 50%). This is an increase of 100% from the baseline in their knowledge. Females' results increased from 31% to 54%, representing a 75% increase; while males' results increased from 17% to 50%, representing a 100% increase. The below graph illustrates the Pre-Post assessment results.

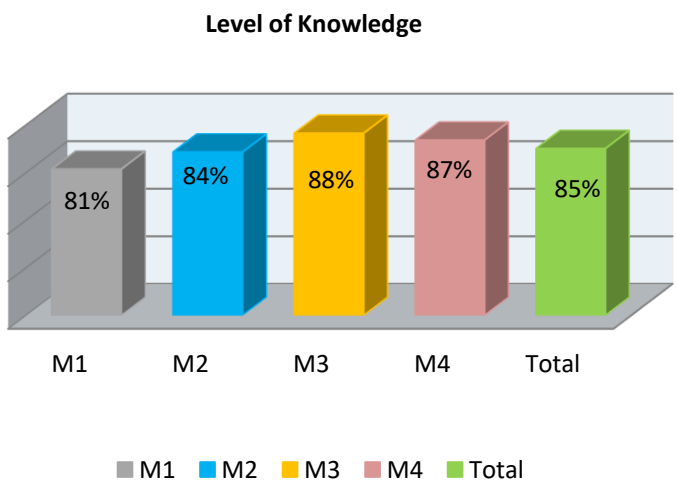
Science

Pre assessment per Sex:
- Females: 31%
- Males: 17%

Post assessment per Sex:
- Females: 54%
- Males: 50%



More to the indicator in the M&E framework, QRTA also measure the level of knowledge acquired from the training modules through the feedback forms as illustrated in the graph below:

Science Classification per Module: - Module 1: 81% - Module 2: 84% - Module 3: 88% - Module 4: 87%	

<u>Outcome 6:</u> Improved perception of teachers towards blended training methodology

- 6.1.1: Percentage of teachers completing the whole program
- 6.2.1: Participants' level of Satisfaction of the program

Math: Out of the 46 participants who completed the training program, 38 applied for the MoE exam and the 38 passed the exam which represent 100% completion rate (68% females and 32% males).

Science: Out of the 32 participants who completed the training program, 27[5] applied for the MoE exam and 18 from them passed the exam which represent 67% completion rate (61% females and 39% males).

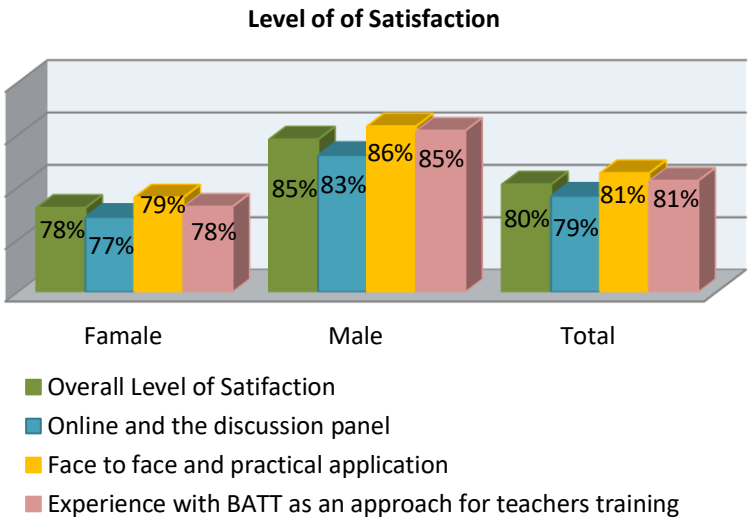
Math: An end of program satisfaction survey was developed and deployed to participants in an attempt to see how they found the BATT experience. 82% of participants who responded to the satisfaction survey indicated that the program was their first experience with online approach for training. The overall results indicate that they have enjoyed it and found it a good learning experience. The overall level of satisfaction was at 80% which exceeded the set target of 60% and was measured through 3 main domains that are:

1. The online and the discussion panel: 79%

[5] One of the participants left the country for work before the date of the exam, therefore could not apply for the exam and another participant passed away just one day before the exam.

2. The face to face and practical application: 81%
3. The experience with BATT as an approach for teachers training: 81%

Classification per Sex
- Females: 78%
- Males: 85%

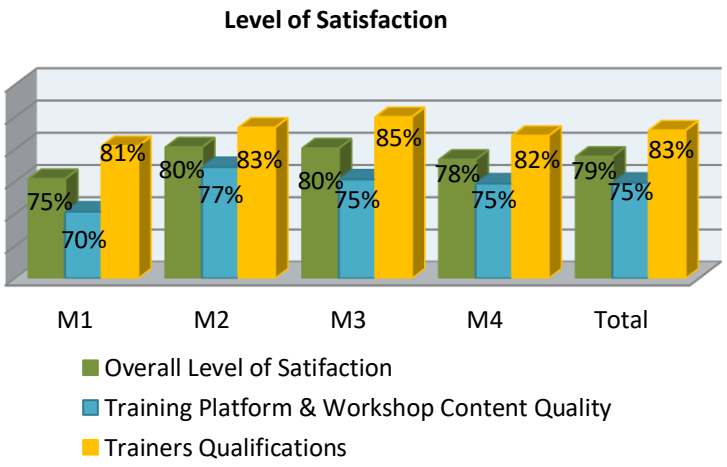


More to the indicators in the M&E framework, QRTA also measure the level of satisfaction of training modules quality where participants are requested to complete a feedback form after each module. Level of satisfaction is measured by 2 main domains:

1. Training Platform and Workshop Content Quality
2. Trainers Qualifications

Math

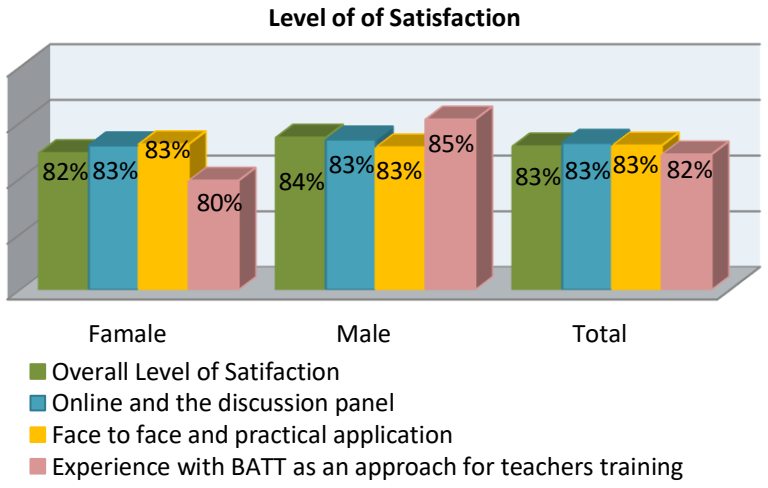
Classification per Module:
- Module 1: 75%
- Module 2: 80%
- Module 3: 80%
- Module 4: 78%



Science: An end of program satisfaction survey was developed and deployed to participants in an attempt to see how they found the BATT experience. 79% of participants who responded to the satisfaction survey indicated that the program was their first experience with online approach for training. The overall results indicate that they have enjoyed it and found it a good learning experience. The overall level of satisfaction was at 83% which exceeded the set target of 60% and was measured through 3 main domains that are:

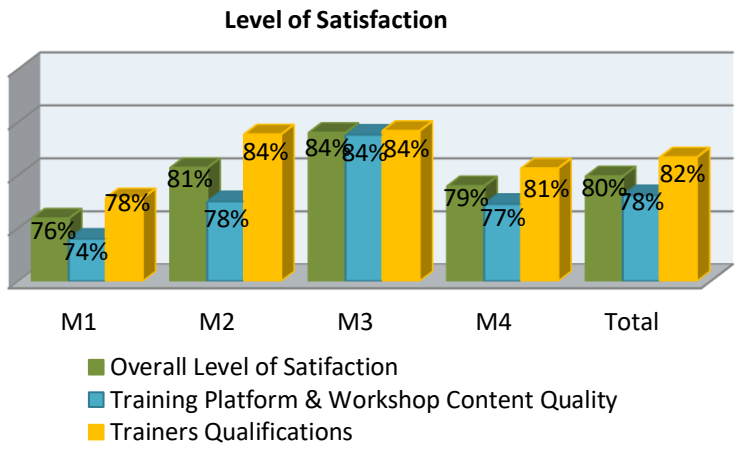
1. The online and the discussion panel: 83%
2. The face to face and practical application: 83%
3. The experience with BATT as an approach for teachers training: 82%

Classification per Sex
- Females: 82%
- Males: 84%



More to the indicators in the M&E framework, QRTA also measure the level of satisfaction of training modules quality where participants are requested to complete a feedback form after each module. Level of satisfaction is measured by 2 main domains:

1. Training Platform and Workshop Content Quality
2. Trainers Qualifications

Science Classification per Module: - Module 1: 76% - Module 2: 81% - Module 3: 84% - Module 4: 79%	

3.5. Lessons learned and success factors

Throughout the implementation of the BATT modules, the field has witnessed a number of successes. Below is some of the success:

Psychosocial and pedagogy modules:

Teachers started incorporating psychosocial support and supportive communication in their classes. This provided the students with a safe environment to share their thoughts and feeling and consequently improved their academic performance. In addition to this, teachers' classroom management have improved where they managed to increase the participation of underachieving students and Syrian and Jordanian students together; this improved their self-esteem where they started getting more involved in classes (group activities).

Math modules:

Batool Al-Issa reported that her students used to face some difficulties in mathematics. After attending the BATT training which promoted the use of technology in the pedagogical context, she started using technological platforms and software in her classroom which facilitated the teaching – learning process and transformed her classroom into a more interactive class.

Science Modules:

One of the Science trainees stressed that the teaching methods in textbooks needed to be enriched with additional activities to facilitate learning some of the difficult concepts to students. After attending the training, she started using new technological software and applications which facilitated the delivery of information to her students and made her class more enjoyable.

4. Donor and partner visibility

To Initiate the BATT project, QRTA organized a launch event for the program on 22nd October 2015 where all donors and partners were present. During the event, QRTA presented the goals and purposes of the program. Furthermore, based on UNESCO's request, QRTA will not be holding a closing event for the project.

To ensure visibility of all partners during the implementation of the BATT pilot, QRTA designed and presented banners at trainings and awareness sessions. Aside from this, QRTA made sure that all forms and online and face-to-face content are correctly branded. Additionally, a group was created on Facebook to keep track of the progress of BATT activities and updates

(https://www.facebook.com/groups/222875671392823/); these are also accompanied by an especially developed hashtag: #BATT.

As for EDRAAK's platform, QRTA worked extensively with EDRAAK to create a specialized homepage for the BATT project. On this homepage, all logos including UNSECO, Saudi Fund for Development, EU and QRTA are present. Not only this, participants who graduated from the BATT received giveaways which were also branded with UNESCO, EU and SFD logos.

5. Annex

Annex 1: Resource material used to support the psychosocial and pedagogy, math and science BATT modules

a) Psychosocial & Pedagogy Resources:

Arabic references:

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