

The Evaluation of DEMEC Training Program Effectiveness by Using The eQvet-us Model

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Abstract

Evaluation of training effectiveness signifies measuring the improvement in the participant's knowledge, skill and behavior within the organization as a result of the acquired training experience. This measurement helps to match the training design and implementation cost with the associated benefits. Thus, it indicates whether the program has been able to deliver its intended goals and objectives. The purpose of this paper is to evaluate the effectiveness of 'The Development of Ecotourism in the Middle East Countries' (DEMEC) training program using the eQvet-us Model. Both objectives and evaluations levels of the model are implemented following the Plan-Do-Check-Act cycle (PDCA) in opposite senses.

Results expose the training program effectiveness in both levels and in each phase of the PDCA cycle. In the objectives level, the effectiveness of the program building and the alignment between outcomes and contents, performance, knowledge, and motivation are analyzed. In the evaluations level, training impact on participants' reaction, learning, behavior, and results are investigated including: knowledge, skills, and behaviors of ex-participants; training impact on career promotion of ex-participants; training impact on knowledge, skills, and attitudes transfer to fellow colleagues at work; training impact on relationships with local people; and networking with other ex-participants. Finally, this paper sets recommendations to improve the effectiveness of DEMEC training program.

Keywords: DEMEC, Evaluation, eQvet-us model, PDCA cycle, Training effectiveness.

Introduction

The Evaluation of any training program fulfils specified aims always concerned with the determination of needed change in both the staff behavior and the organizational structure (Farjad, 2012). The word 'change' was also reflected by Noe (2008) who stated that training is progressively serves as the catalyst to drive change and to support an organization achieve its specified strategic objectives. Training is an organized approach to enhancing individuals' knowledge, skills, and attitudes to improve individual, team, and organizational effectiveness (Shenge, 2014). This was emphasized by Goldstein & Ford (2002) and Gupta & Bostrom (2006) that training is one of the most inevitable methods for enhancing individual productivity and improving job performance in the work environment.

Training effectiveness is looked at as an evaluation of the change happened after the training, such as the definition of Bramley (1996:35) who defined it as "*a measurement of observable changes in knowledge, skills, and attitude after training has been conducted*". While it was understood differently as an ongoing process throughout the training such as Alvarez *et al.* (2004:389) who defined the term as "*the variables that are likely to influence the outcomes of the training at different stages of the training process*".

The term training effectiveness is closely connected with training evaluation which is considered a critical component of analyzing, designing, developing, and implementing an effective training program (IAEA, 2003). Thus, evaluating the effectiveness of training can

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identify areas where training needs improvement and may also provide vision on ways to improve it (Farjad, 2012). This was highlighted by Gensing-Pophal (2004) who discussed the need to evaluate training effectiveness and how it should be tied in with real work performance.

This paper aims to evaluate the effectiveness of the 'Development of Ecotourism in Middle East Countries' (DEMEC) training program using the eQvet-us model which is a new paradigm designed upon the well-known Kirkpatrick's model. It provides prompt evaluation in industry-oriented, short, intense Vocational Education and Training (VET) professionals' courses. Also, its scope encompasses evaluations of innovative learning outcome after return to work by using modern, easy to use response technology (Iantovics, 2008; Zamfirescu *et al.*, 2010). It includes assessment for learning in competence-based systems (Moldovan, 2015).

Literature Review

Training Effectiveness Evaluation

The knowledge, skills, and positive attitudes of employees in an organization have increasingly become essential to its performance, competitiveness and sustainable development (Elnaga & Imran, 2013). One way to develop and improve the competences of employees is to provide them with useful training programs. In a record of organizations, competency training was conducted as a form of reward principally for employee's promotion (Macalaguim & Menez, 2014). Hafeez & Akbar (2015) reported that the more the employees receive training, the more efficient their level of performance would be because training is associated with the skills that an employee should gain to help him by working with others in an attempt to achieve organizational goals and objectives (Falola *et al.*, 2014; Hanaysha, 2016). That's why Singh & Mohanty (2012) explained how the investments in employees training would result in achieving organizational outcomes.

In this context, training was looked at from the perspective of the acquisition of knowledge, skills, and abilities by professional development (Aguinis & Kraiger, 2009; Dessler, 2005; Katou & Budhwar, 2006; Noe, 2000; Palo & Padhi, 2003; Parce & Robinson, 2009; Sabir *et al.*, 2014). Moreover, it also develops self efficacy and results in superior performance on job (Gidey, 2016).

From another perspective training was looked at as a means to take better and creative decision in time and in more productive manner; as, it not only develops the capabilities of the employee but polishes their thinking ability and creativity (Lola *et al.*, 2017).

Farjad (2012) stated that for training to be effective, the skills and knowledge learnt during training must be transferred to the job. Employees' behavior change should; therefore, be evaluated on job to know training effectiveness (Khalid, Rehman & Ashraf, 2012). Saad & Mat (2013) mentioned that organization need to examine the extent to which training closely connected with the organizational strategy, and more importantly, to measure the effectiveness of training activities. Therefore, to ascertain the effectiveness of training, training evaluation is required (Cheng & Ho, 2001; Beardwell, 2004).

Noe (2002) states that training evaluation is a process to collect outputs needed by a decision maker to testify the effectiveness of a training program. Similar understanding of training evaluation is discussed by Stufflebeam (2000) and Boulmetis & Dutwin (2000). when this evaluation process becomes part of planning activity, training proves fruitful (Khalid, Ashraf, Azeem, Ahmed & Ahmad, 2012). This idea represents the reason strategic plan for training evaluation is needed, as it implies clear assessment methods of reporting training effectiveness. therefore, the findings can be used to improve training and its related activities (Clark & Estes, 2002). In this regard, Karim *et al.* (2012) specified

three main purposes of training evaluation including: I) Seeking feedback on the effectiveness of training activities; II) Monitoring the provision of training; and III) Intervening into the organizational processes that affect training.

Schalock (2001) interpreted training effectiveness evaluation as the extent to which a program has met its stated performance goals and objectives. Mollahoseini & Farjad (2012) discussed it as a means to identify the value of training programs, improvement techniques, and training resources to the organization. Thus, the main goal of training evaluation is to measure the on-job impact of the training program and to allow an awareness in not only the participants personal progress but also the know-how to support the attendees in implementing the learned methodologies/tools in their work (Alexandrov & Sancho, 2017).

In this paper, DEMEC training program effectiveness is evaluated to measure the on-job impact of this training program and to help decision makers spot the change happened in the behavior of the employees participated in this training program using eQvet-us model.

The DEMEC Training Program

Literature revealed that ecotourism is the fastest rising tourism sector worldwide (Ibrahim & Jones, 2011); consequently, the United Nations World Tourism Organization (UNWTO) and other international organizations are keen to developing ecotourism, promoting responsible travel to natural and cultural heritage destinations and conserving the environment. In this respect, the Faculty of Tourism and Hotels, Fayoum University in Egypt and the Japan International Cooperation Agency (JICA) agreed in August 4th, 2011, to collaborate to launch a training program focused on ecotourism site planning, management, and preservation.

The reason this program was launched by the Fayoum University is that its potential for ecotourism is very high, but the economic benefits of tourism are minimal as far as the local population and the government are concerned (Ibrahim & Jones, 2011). Therefore, it was valuable to share with the other Middle East countries their mutual economic, social, and environmental issues which could be fixed via implementing a strategy of ecotourism for sustainable development.

The aim of DEMEC is to find out similarities and differences in the field of ecotourism in Middle East Countries and to establish networks through preparing active focal points of ecotourism in the participating countries (JICA, 2015). It provides opportunities for participants to enhance their current knowledge and practical skills in planning, designing, developing and managing ecotourism destinations. The following table shows basic information of the DEMEC training program.

Table 1: Basic information of the DEMEC training program

Program Name	Targeted Participants/ Number	Duration of the program	Invited Countries	Methodology used
The Development of Ecotourism in Middle East Countries (DEMEC)	The Mid-Career officials who work in tourism development in the Middle East Countries / Total number of participants is 20 per year	Four weeks every year	Iraq, Jordan, Lebanon, Syria, Sudan, Palestine, Yemen, Tunisia, Algeria, Morocco, and Libya	Training modules, Field-visits, Lectures, Workshops, small group discussions

Source: (adapted from: JICA, 2015)

Models of Training Evaluation

Kirkpatrick model

This famous model is regarded the most known and applied evaluation model developed by Donald J. Kirkpatrick. He formulated the Evaluation process as a series of four levels including - respectively: reaction, learning, behaviors, and results (Kirkpatrick, 1998) – see table (2). The model received some criticism by training experts and academics, who suggested that one evaluation criterion is needed to describe monetary return on investment (ROI) (Fitz-enz, 2000; Noe, 2002).

Table 2: Training evaluation levels according to Kirkpatrick model

Evaluation levels	Objectives	Methods	Advantages/Disadvantages
Reaction (and planned action)	Participant's reaction and satisfaction to the content and delivery of training.	Participant's complete Evaluation forms and/or develop action plans for implementing new knowledge.	Subjective but has some usefulness. If follow-up is scheduled, participant's action plans will be more realistic.
Learning	Skills, knowledge or attitude changes as a result of training program.	Tests via paper and pencil or computerized format.	Tests must be assessed for validity and reliability.
Behavior	Changes in behavior on the job as a result of training ,as expected.	Performance reviews and observations. Behavioral assessment techniques.	Assumption is that if the behavior is changing, results will follow.
Results	Impact of training on business activities and processes.	Cost reduction, productivity increases, improved quality , reduced labor hours, decreased production / processing time , etc.	Critical tasks are isolating the effects of training and capturing appropriate data.
Return on Investment (ROI)	Compares the costs of the training program with monetary results and is usually expressed as a percentage.	Detailed, comprehensive data collection and analysis of costs & benefits. Accounting expertise helpful. Time value of money is a factor.	The most comprehensive and objective evaluation technique ,but the process can be very costly and time consuming.

Source: (Sunardi *et al.*, 2012:267)

The eQvet-us evaluation model

The innovative eQvet-us evaluation model represents an ellaboration of Kirkpatrick's. It associated the corresponding objectives to the evaluations - as shown in table (3) and in figure (1) (Moldovan, 2016).

Table 3: eQvet-us evaluation model levels

Objective Phase	Objectives	Evaluations	Evaluation Phase
Act	Motivation: What must the trainees perceive in order to learn and perform?	Reaction: Are the trainees motivated to learn?	Plan
Check	Knowledge: What new knowledge, skills, and resources do trainees need in order to perform?	Learning: Did the trainees learn the needed skills and use the resources they were given?	Do
Do	Performance: what must the trainee be able to perform in order to achieve the organizational objectives?	Behavior: Did the trainees transfer the skills to the workplace?	Check
Plan	Outcome: What is the organizational goal to improve the business?	Result: Is the desired organizational impact being felt?	Act

Source: (Moldovan, 2016:1187)

This model consists of two levels: objectives and evaluations. It follows the Plan-Do-Check-Act cycle (PDCA) in opposite senses. In planning a vocational and Education Training (VET), an organization starts with the objectives planning, the desired outcome, and the organizational goal to improve the business. Then, the work requirements and the support for the skills acquired during the training are elaborated. Finally in the acting phase, the trainees' incentives for learning are explained (Moldovan, 2016). In the next level, the evaluation consists of the following phases (Moldovan, 2016):

- 1- Reaction evaluation: measure how trainee thought and felt about the training and learning experience during the training course;
- 2- Learning evaluation: measure the increase in knowledge or capability before and during the course to provide corrective actions at the end of the course;
- 3- Behavior evaluation: measure the extent of applied learning back on the job (implementation of knowledge and skills);
- 4- Result evaluation: investigate the effects on the business or environment resulting from the trainee's performance.

Figure 1: eQvet-us training evaluation model



Source: (Moldovan, 2016:1188)

Methodology

This paper implements the eQvet-us model to evaluate the effectiveness of DEMEC training program. Both objectives and evaluations levels are employed following the PDCA cycle.

The objectives level

In this level, documentation represented the major method to gather data on the training goal and objectives to improve ecotourism in the Middle East countries (outcome). This was approached by investigating the "General Information (GI)" document. Also, an analysis to the "Pre-study Reports" and the "Selection Criteria" document indicated what the trainee must be able to perform to achieve the training objectives (performance). Then, an alignment between the objectives and the content – in the light of the available resources - indicated the knowledge and skills (knowledge) participants should acquire and resources they need to perform. Also, through analyzing the "GI" document and the "Training Agenda" document provided enough data to do this. The alignment also included the training strategies used in the training - "GI" document and "Training Agenda" – to indicate what participants would perceive so that learning and performing could happen (motivation).

The evaluations level

In this level, questionnaires (participants) and semi-structured interviews (their managers) were the key methods to collect data. An analysis to the "session feedback questionnaire" results indicated whether participants were motivated and perceived learning and performing (reaction). Also, analyzing the results of "pre-and post-tests" revealed if participants did learn the needed skills and use the resources they were given (Learning). A visit to one participating country in 2014 – as a sample – to see ex-participants on job and meet them and their managers to do "semi-structured interviews", echoed whether participants transfer knowledge to their workplace (behavior), and if the desired impact on the organization has been felt (result). Jordan was selected as the country to visit because of two factors; 1) the highest number of participants in DEMEC training program (17 out of 52 participants from all countries in the three years which represents 33% of participation), 2) the highest number of participating organizations (4 organizations) including: Petra Development and Tourism Region Authority, Jordanian Ministry of Tourism, Royal Society for the Conservation of Nature (RSCN), and a few NGOs. Table (4) summarizes the methodology part of this paper.

Table 4: Methods used to gather data and implement eQvet-us evaluation model levels

Objective Phase	Objectives (Documentation)	Evaluations (Questionnaires and Semi-structured interviews)	Evaluation Phase
Act	Motivation: General information (GI) and Training Agenda	Reaction: session feedback questionnaire	Plan
Check	Knowledge: General information (GI) and Training Agenda	Learning: pre- and post-tests	Do
Do	Performance: Pre-study reports and Selection Criteria	Behavior: semi-structured interviews and observation	Check
Plan	Outcome: General information (GI)	Result: semi-structured interviews – and observation	Act

Results and Discussion

The objectives level

Plan (Outcome)

In this level, DEMEC training goal and objectives to improve ecotourism in the Middle East countries were addressed in the GI. The main goal of the course is 'to find out similarities in the field of ecotourism in Middle East Countries and build up networking programs through preparing active focal points of ecotourism in the participating countries who can utilize ecotourism to overcome social, environmental, and economical problems of local communities'. This goal encompasses five objectives participants should be able to fulfill by the end of the training program:

1. Enhance their understanding of ecotourism as a means to achieve sustainable tourism development;
2. Upgrade their practical capabilities to manage ecotourism sites back home;
3. Know how to utilize ecotourism to overcome social, environmental, and economical problems of local communities;
4. Maximize their contribution to their countries' ecotourism development strategies.
5. Acquire certain necessary skills i.e. networking and communication;

Do (Performance)

In the 'Do' phase, the pre-study reports submitted by ex-participants to the program manager and the criteria of participants' selection were analyzed as they answer what participants must be able to perform and whether they can achieve the training objectives (performance). Participants pre-study reports indicate that they are carefully selected as they already know how to design, plan and manage ecotourism destinations in their countries. This knowledge will be enhanced and built upon during the workshops when they are asked to present their pre-studies, their views will be discussed with competent scholars, and lessons learnt will add to the participants' understanding.

Check (Knowledge)

In the Check phase the new knowledge, skills and resources trainees need were investigated. An alignment between the objectives and the content – in the light of the available resources - indicated the knowledge and skills participants should acquire and resources they need to perform. The GI and the Training Agenda documents were analyzed and the following table (5) summarizes the alignment results:

Table 5: The alignment plan of DEMEC program contents, training strategies and available resources

Goal	Objectives	Content	Strategy	Resources
To find out similarities in the field of ecotourism in Middle East Countries and build up networking programs through preparing active focal points of ecotourism in the participating countries who can utilize ecotourism to overcome social, environmental, and economical problems of local communities	1. Enhance their understanding of ecotourism as a means to achieve sustainable tourism development ;	Sustainable Tourism Development	Training Module	Training venue
		Ecotourism	Training Module Field Visits Workshops	Training venue – Transportation – Accommodation – tickets – food – etc.
		Role of NGOs in Developing Ecotourism in the Fayoum Governorate	Lecture Field Visits Workshops	Training venue – Transportation – Accommodation – tickets – food – etc.
		Ecolodge	Training Module Field Visits	Training venue – Transportation – Accommodation – tickets – food – etc.
		Sustainable Restaurant	Lecture	Training venue
	2. Upgrade their practical capabilities to manage ecotourism sites back home;	Managing Heritage Destinations in ME Countries A (Cultural Heritage)	Training Module Field Visits Workshops	Training venue – Transportation – Accommodation – tickets – food – etc.
		Managing Heritage Destinations in ME Countries B (Natural Heritage)	Training Module Field Visits Workshops	Training venue – Transportation – Accommodation – tickets – food – etc.
		Destination Management	Training Module Field Visits Workshops	Training venue – Transportation – Accommodation – tickets – food – etc.
		Destination Marketing	Training Module	Training venue
		Destination Competitiveness	Training Module	Training venue
		E-Branding of Ecotourism Destinations	Training Module	Training venue
		Interpretation and presentation of cultural heritage sites	Training Module Field Visits	Training venue – Transportation – Accommodation – tickets – food – etc.
		Tourism Service Quality	Training Module Field Visits	Training venue – Transportation – Accommodation – tickets – food – etc.

		Food Safety Management	Training Module	Training venue
		Crises Management	Lecture	Training venue
	3. Know how to utilize ecotourism to overcome social, environmental, and economical problems of local communities ;	Community-Based Tourism	Training Module Field Visits Workshops	Training venue – Transportation – Accommodation – tickets – food – etc.
		Sustainable Tourism Development	Training Module	Training venue
		Ecotourism	Training Module Field Visits Workshops	Training venue – Transportation – Accommodation – tickets – food – etc.
		Role of NGOs in Developing Ecotourism in the Fayoum Governorate	Lecture Field Visits Workshops	Training venue – Transportation – Accommodation – tickets – food – etc.
	4. Maximize their contribution to their countries' ecotourism development strategies;	Strategic Planning	Training Module Workshops	Training venue
		Strategic Plan Evaluation	Training Module Workshops	Training venue
	5. Acquire certain necessary skills i.e. networking and communication.	Protocol and Communication Skills	Training Module	Training venue

It is clear from the alignment in table (5) that the knowledge and skills required to achieve the program objectives are fully covered 100% in the designed content. Also, both human resources of the faculty of Tourism and Hotels and the financial resources provided by JICA are enough to effectively achieve the training main goal.

Act (Motivation)

In the Act phase the participants' motivation was analyzed. Also, the previous alignment also included the content was delivered using varied, appropriate, and sufficient training strategies. Strategies planned for the training include: training modules which includes the major hands-on learning activities to enhance the required knowledge and skills; field visits which represent the real-life application of what was acquired from the training modules in the cultural and natural heritage sites; lectures to add to the most up-to-date knowledge to the participants; and workshops where participants present and discuss their pre-study reports. All these training strategies guarantee the motivation of participants.

The evaluations level

Plan (Reaction)

The analysis of the session feedback questionnaire results indicated that the reactions of participants were positive, and they were motivated and perceived learning and performing from each subject of training in three consequent years from 2011-2013. Two factors are considered: effectiveness and efficiency. Table (6) summarizes the results of this analysis; it shows to what extent participants were motivated to perceive learning and performing. It proves that the program effectiveness and efficiency were positively significant. The effectiveness depended on three factors: 1) Level of Understanding; 2) Level of Application; and 3) Level of Documents. While, the efficiency relied on three factors: 1) Appropriateness of Lecturers; 2) Appropriateness of Time Allocation; and 3) Appropriateness of Training Facilities.

In terms of effectiveness, results asserted that the average level of understanding among participants was excellent (93.3%) which reflects clear message delivery. The top most level of understanding was recorded in the following modules respectively: Tourism Service Quality (99%), Ecotourism (98%), and Destination Marketing (97%). And the least level of understanding was recorded in these modules: Ecolodge (84%), Managing Heritage Destinations in ME Countries B (Natural Heritage) (86%), and Sustainable Restaurant (88%), which also reflects high motivation of participants. Also, the level of application was excellent (90.2%) which assures to what extent participants believe what they have taught is applicable back home and they are able to perform this.

Table 6: Participants' Motivation to Perceive Learning and Performing from Reaction analysis

Topic	Effectiveness			Efficiency		
	Level of Understanding	Level of Application	Level of Documents	Appropriateness of Lecturers	Appropriateness of Time Allocation	Appropriateness of Training Facilities
O ₁ : Enhance their understanding of ecotourism as a means to achieve sustainable tourism development						
Sustainable Tourism Development	92%	90%	92%	91%	88%	95%
Ecotourism	98%	93%	92%	99%	85%	94%
Ecolodge	84%	87%	73%	80%	94%	90%
Sustainable Restaurant	88%	90%	79%	91%	80%	93%
O ₂ : Upgrade their practical capabilities to manage ecotourism sites back home						
Managing Heritage Destinations in ME Countries A (Cultural Heritage)	95%	88%	83%	96%	82%	94%
Managing Heritage Destinations in ME Countries B (Natural Heritage)	86%	79%	81%	75%	73%	90%
Destination Management	92%	88%	87%	89%	78%	90%
Destination Marketing	97%	93%	89%	99%	84%	94%
Destination Competitiveness	95%	89%	88%	90%	80%	90%
E-Branding of Ecotourism Destinations	96%	90%	87%	95%	81%	91%
Interpretation and presentation of cultural heritage sites	96%	95%	93%	99%	88%	95%
Tourism Service Quality	99%	94%	93%	95%	85%	92%
Food Safety Management	93%	92%	90%	90%	80%	94%
Crises Management	92%	92%	88%	93%	80%	92%
O ₃ : Know how to utilize ecotourism to overcome social, environmental, and economical problems of local communities						
Community-Based Tourism	96%	92%	90%	95%	77%	92%
Role of NGOs in Developing Ecotourism in the Fayoum Governorate	92%	90%	92%	91%	88%	95%
O ₄ : Maximize their contribution to their countries' ecotourism development strategies						
Strategic Planning	94%	92%	92%	95%	93%	91%
Strategic Plan Evaluation	95%	90%	89%	92%	91%	90%
O ₅ : Acquire certain necessary skills i.e. networking and communication						
Protocol and Communication Skills	92%	89%	89%	87%	80%	91%

Do (Learning)

In this phase, the pre- and post-tests were analyzed, and results revealed that participants did learn the needed skills and use the resources they were given. The following table (7) shows the pre- and post-tests analysis:

Table 7: Results of Pre-and Post-tests analysis

Participants (Jordan)	Pre-test (10 marks)	Post-test (10 marks)
EX ₁	4	10
EX ₂	2	9
EX ₃	6	10
EX ₄	6	10
EX ₅	7	10
EX ₆	4	9
EX ₇	5	9
EX ₈	5	8
EX ₉	6	10
EX ₁₀	6	10
EX ₁₁	3	7
EX ₁₂	2	7
EX ₁₃	6	10
EX ₁₄	7	10
EX ₁₅	4	9
EX ₁₆	5	9
EX ₁₇	4	8

It is clear from table (7) that learning of all participants has happened; P2 for example scored 9 out of 10 in the post-test while got only 2 out of 10 in the pre-test.

Check (Behavior)

The visit to Jordan - country selection criteria was mentioned before - in 2014 aimed to meet ex-participants on job and meet their managers to perform semi-structured interviews. The main issue was to check whether a change in the behavior at the workplace of ex-participants has happened due to their participation in DEMEC training program?

During the visit, Petra Development and Tourism Region Authority, Jordanian Ministry of Tourism, Royal Society for the Conservation of Nature (RSCN), and a few NGOs were visited. 16 out of 17 ex-participants were interviewed and their managers. Results exposed that major behavioral changes have taken place. Almost all ex-participants of DEMEC training program have gained enough knowledge, skills and positive behaviors to enhance the overall effectiveness of Jordanian tourism sector in general and ecotourism in specific. The following results can be implied from the interviews and observation implemented in the evaluation:

Training Impact on Knowledge, Skills, and Behaviors of ex-participant

It was apparent from our interviews with DEMEC ex-participants that the knowledge and skills of most of them about ecotourism and related issues have increased:

'we now know how to plan our work in a better way, how to investigate what local people need, how to conduct awareness campaigns in schools with local students, how to select and prepare future reserve area employees from our students (Junior Rangers). All these benefits and beyond we acquired from this training program in Egypt and now our strategic plans depend on what we have learnt in it' (EX.1; EX.5; EX.6). *'Scientifically, the training was very effective as it was for me the first scientific course on ecolodge, tourism service quality, the concept of cultural heritage, and branding of heritage destinations'* (EX.10).

Moreover, DEMEC training led and inspired some ex-participants to implement innovative ideas: *'This training led us to think of similar trails infrastructure of the Valley of Whales in Egypt which we had studied in the field visits, so we started to mark the trails with canes instead of gravel in Egypt to match our environment'* (EX.2).

The training also grasped the attention of ex-participants to the idea that economical dimension of ecotourism is as important as the social and environmental dimensions: *'we started to think of how to develop services and generate revenues to sustain those services at the same time'* (EX.16; EX.7).

The training enhanced the creativity of some ex-participants to introduce a new tourism type in their work areas: *'We introduced ecotourism to Petra Cultural Heritage Site. We determined certain locations in Petra of wonderful ecotourism potentials because of the existence of biodiversity such as the Mousa Springs Area and Ain ElSadr'* (EX.4). They suggested new trails in some heritage areas based on what they have learnt in Egypt: *'new tourist trails have been suggested inside Petra to include ecotourism sites'* (EX.15).

Furthermore, the training program inspired fund raising and projects hunting by the ex-participants which enhanced the effectiveness of tourism sector in Jordan as a whole: *'We have got the Green Key project and sign in Petra Camp Site. Although I had no idea about ecolodge and environmental camps before DEMEC training, I participated in putting the criteria of environmental camps and ecolodges in Rum Reserve and applied it in Petra Camp Site'* (EX.3).

DEMEC training inspired some ex-participants to solve major environmental problems in Jordan: *'A wild tree has been planted widely in Jordan to convert the desert into a green place. However, it started to spread widely and destroy the environment. Inspired by similar ideas from DEMEC training program, we worked with RSCN and convinced them to stop planting this tree and we work now on producing animals food from it'* (EX.5).

Notably, the work behavior of some ex-participants enhanced: *'our mentality and behavior have positively changed because of the training'* (EX.1). *'I liked the leading Charisma of DEMEC training program manager. I try to implement his way of managing the course into my work especially how to deal with my employees'* (EX.14). *'I learnt how to minimize my shyness when I deal with local people and to tell the truth to the tourists'* (EX.10).

Managers assert that some of the ex-participants have been changed in terms of their ideas, skills and attitudes: *'EX.6 has got good ideas and positive attitudes when he came back from Egypt. We got benefited from his ideas'* (M.1). *'The training program enhanced my understanding on ecotourism and I transferred this knowledge and ideas to the local council who used it to develop their way of management, involve local people, organize peoples' entry to the reserve, and provide job opportunities'* (EX.6; EX.13).

Networking with Other ex-participants

Most ex-participants still keep strong and effective links with each other especially through DEMEC facebook page, but they also use telephone calls, visits, and work meetings: *'I use*

DEMEC facebook page to interact with other ex-participants' (EX.10; EX.3; EX.4; EX.7; EX.8; EX.9 and EX.11).

More importantly, some ex-participants built relationships with ecotourism community in Egypt and started novel collaboration with them: *'I visited Egypt again and worked in collaboration with ecotourism community in Tunis village and Baharia oasis in Egypt on developing ecolodge specifications'* (EX.11).

Worth mentioning, some ex-participants decided to do master and PhD studies in the faculty of Tourism and Hotels as emphasized by (EX.8).

Act (Result)

The visit to Jordan echoed if the desired impact on the organization has been felt. The following results can be addressed from the interviews and observation analysis:

Training Impact on Career Promotion of ex-participant

Some ex-participants got promoted for their work activity acquired from the training. Ex.4 is one of those who were promoted six months after he came back from the training in Egypt and he became the Head of Promotion Department in Petra. Before attending the Training, he had no idea about marketing and promoting heritage sites; however, the training enhanced his marketing abilities especially in the area of heritage destination competitiveness.

Another example is EX.5, a seller in the souvenir shop and a guide in the Dead Sea Panorama who was promoted as the Head of RSCN Unit in the Dead Sea Panorama just a year after he came back from DEMEC training in Egypt. He asserted that knowledge and skills he acquired from the training played a primary role to recommend him to this position.

Moreover, EX.9's potential to get the office of Tourism Director of Ajloun Nature Reserve is quite high because of the innovative ideas he acquired from DEMEC training as emphasized by his manager (M.2) although he was just a receptionist: *'EX.9 finally understood the importance of documentation process inside the Nature Reserve. Furthermore, his self-confidence and motivation increased after participating in DEMEC training'* (M.2).

Two ex-participants have resigned from their work in RSCN for different reasons. The first one was a participant of DEMEC1 in 2011. He joined another 'environmental' job with 'Friends of the Earth' and his salary is tripled. The other one is EX.11 who was working on a temporary-basis in one of the RSCN projects but the latter is over and she has to leave the place. Now she works for 'Lubac', a Kuwaiti organization for training for jobs. She designed a book called 'Birds' and trained some rangers from Yarmouk Nature Reserve where she used some of the DEMEC training materials. Finally, she invented to environmental games.

Training Impact on Relationship with local people

The understanding and tendency towards serving local people has reinforced and enhanced: *'our relationship with local communities in Dana has been enhanced'* (EX.15). *'We learnt how to involve local people in each stage of our Reserve Management from DEMEC program manager. This was a big mistake we did before the training in Egypt'* (EX.7).

It is also obvious that new ideas for dealing and positively influencing local peoples' lives emerged from the training and implemented in Jordan: *'We taught local people how to sell their traditions and daily life activities to tourists and we put price for that to benefit local people. For example, they earn 50 JD for milking goats before tourists'* (EX.16).

Training Impact on Knowledge, Skills, and Attitudes Transfer to Others

Some ex-participants gave training and organized workshops based on DEMEC training not only to their fellow colleagues but also to others outside their workplace: *'I gave trainings and organized workshops to the Dana Reserve staff and to the rangers in other reserves in*

Jordan including: Yarmouk, Fefa, Aqaba, and Rum' (EX.1). 'I transferred my experience to the manager of Azraq Camp and to my fellow colleagues because I consider this training a precious thing that everybody has to own' (EX.10).

Some ex-participants used the given training materials in the process of knowledge transfer: 'I used the concept and knowledge on ecotourism, strategic planning, local community involvement, and other modules in my work' (EX.1; EX.5).

Conclusion

eQvet-us model was promptly implemented to evaluate the effectiveness of the 'Development of Ecotourism in Middle East Countries' (DEMEC) training program. The evaluation encompasses two levels: objectives and evaluations and follows the Plan-Do-Check-Act cycle (PDCA) in opposite senses.

In the objectives level, DEMEC goal and outcomes were addressed and in the do phase, the content was designed to help participants enhance their pre-knowledge and understanding. Also, an alignment between the objectives and the content – in the light of the available resources - indicated that the knowledge and skills required to achieve the program objectives are fully covered in the designed content aided by sufficient human and financial resources. provided by JICA are enough to effectively achieve the training main goal. The alignment also concluded that the content was delivered using varied, appropriate, and sufficient training strategies that guaranteed the motivation of participants.

In the evaluations level, the reactions of participants were positive, and motivative and perceived learning and performing from each subject of DEMEC training. It is concluded that the program effectiveness and efficiency were positively significant which assures that participants believed what they have taught is applicable back home and they are able to perform. Results also concluded that participants did learn the needed skills and use the resources they were given. The visit to Jordan proved that behavioral change at the workplace of ex-participants has happened due to their participation in DEMEC training program in terms of: impact on knowledge, skills, and behaviors of ex-participant and networking with other ex-participants. The visit also resonated that the desired impact on the organization has been felt, especially in the impact on career promotion of ex-participant, the impact on relationship with local people, and the impact on knowledge, skills, and attitudes transfer to others.

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