«Capacity Development to Enhance Commercial and Technical Utility Management»

E. learning Course eWUM 03
2

«Applying Good Practices» (CD-UM 03)
- January 26-March 9, 2015-

Final Report

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Abbreviations

ACWUA :	Arab Countries Water Utilities Association
CD-UM :	Capacity Development for Utility Management
E WUM 03 :	e.Learning course for Utility management (03)
FB :	Facebook
GIZ :	Deutsche Gesellschaft für Internationale Zusammenarbeit Germany
GTW :	Go To Meeting, Software for online meeting/conference (Webinar)
MCT :	Multiple choice test
MENA :	Middle east and North Africa

Executive Summary

ACWUA (Arab Countries Water Utilities Association) supported by GIZ (German International Cooperation) organized an **interactive e-Learning course** for dynamic and result oriented individuals working as senior managers and supervisors in the water sector who feel the need to grow in the career and personal development.

Capacity Development to Enhance
Commercial & Technical Utility Management
«Applying Good Practices» (e.WUM 03) from January 26 to March 9, 2015

The main objective is to enhance commercial and technical utilities management in the MENA Region through exchange of experience & know how and by networking and communication between ACWUA members to improve the management skills in water utilities.

The Tutor team and course management provided by ACWUA with support by Margraf Publisher, three E-tutors implemented the course in addition to an overall coordinator who acted also as a Tutor.

For the implementation of the course many activities and logistics are carried out such as, main tasks included Acquiring Knowledge by reading the lessons, interact through Webinar, Facebook Discussions. All the discussions held within the group in addition to submitting an Individual assignments described by the Facilitating Tutor. At the end of each unit (3 units), proof of Knowledge was achieved in which the participants are asked to take the Multiple Choice Test and also submit a short paragraph of how they benefit from the learning of this unit.

The selection process considered a list of criteria including geographic distribution; the applicants; were coming from 12 different countries in the MENA region.

Total number of participants enrolled in the e WUM 03 is 54. The average percent of inactive participants is 18% with 13% inactive in unit 6, and 17% inactive in unit 7 and 25% inactive in unit 8.

The Participants proved high level of interest and dedication by their contribution to the overall course activities and were evaluated according to the criteria mentioned here below.

Face-Book Contribution	**25%**
Online Meeting	**15%**
Multiple Choice Test	**45%**
Assignments & Action Plan	**15%**

The results of participants that enrolled in the e WUM 03 course are as follow :

	Total	Unit Credit Granted				Unit Credit Not Granted	
		Outstanding	Very good	Good	Sufficient	Not sufficient	Inactive
Unit 6	**54**	9	14	7	13	4	7
Unit 7	**53**	7	10	9	10	8	9
Unit 8	**53**	17	11	8	2	2	13

I. Introduction

ACWUA (Arab Countries Water Utilities Association) supported by GIZ (German International Cooperation), offer an interactive e-Learning courses for dynamic and result oriented individuals working as senior managers and supervisors in the water sector who feel the need to grow in the career and personal development.

The course consisted of the following three units:

- **Jan 26 - Feb 09, 2015: Unit 6 «Social Responsibility of the Water Utility»**
  Study, Group work, Discussions and interactive Lectures covering these six lessons: Health and Safety | Public Involvement | Serving the Poor | Conflict Resolution Mainstreaming HIV/AIDS | Ethical Behavior.

- **Feb 09 - Feb 23, 2015: Unit 7 «Financial Sustainability»**
  Study, Group work, Discussions and interactive Lectures covering these five lessons: Financial Management | Revenue Generation | Customer Service Non-revenue Water Management | Numbers of Employees.

- **Feb 23 - March 9, 2015: Unit 8 «Managing for Operational Improvement»**
  Study, Group work, Discussions and interactive Lectures covering these six lessons: Standard Operating Practices | Business Process | Minimum Service Standards | Quality Management | Performance Management | Crisis Management.

II. Objectives

The main objective is to enhance commercial and technical utilities management in the MENA Region through exchange in experience & know how and by networking and communication between ACWUA members to improve the management skills in water utilities.

The specific objectives of eWUM 03 (Applying Good Practices») are:

Unit 6: «Social Responsibility of the Water Utility»

This Module – Unit 6 – focuses on the health and safety of the employees of the water utilities and of course the customers and community, including building trust by sharing information and searching and considering feedback made by the community as an institutional principle that strengthen the trust. The unit also focuses on the Conflict resolution as institutional process that would certainly lead to continuous improvement.

Unit 7: "Financial Sustainability"

Explaining the importance of financial sustainability and balancing between revenue and expenses of water utilities , the necessity to satisfy customers and encourage them to pay their bills, with focus on problems and challenges that expose the water utilities in case of non-revenue of water, and how can water utilities compensate financial shortages while maintaining the water quality without hearting the employees , in short thus unit describes how to improve financial sustainability for water utilities.

Unit 8: "Managing for Operational Improvement"

Explaining How to perform tasks in a systemic procedures as business process analysis to increase efficiency and eliminates bottlenecks, continuous improvement that needs continuous process of measurements against standards and improve where needed. Covering the minimum standards for quality of water towards protection of public health and safety of utility customers and the environment, then covering the crises management procedures that if prepared ahead of time can save the utilities against unexpected external or internal critical incidents or conditions that may jeopardize the utility and the customers.

III. Course Description

This course consists of 3 units / modules:

- Unit 6 «Social Responsibility of the Water Utility»
- Unit 7 «Financial Sustainability»
- Unit 8 «Managing for Operational Improvement»

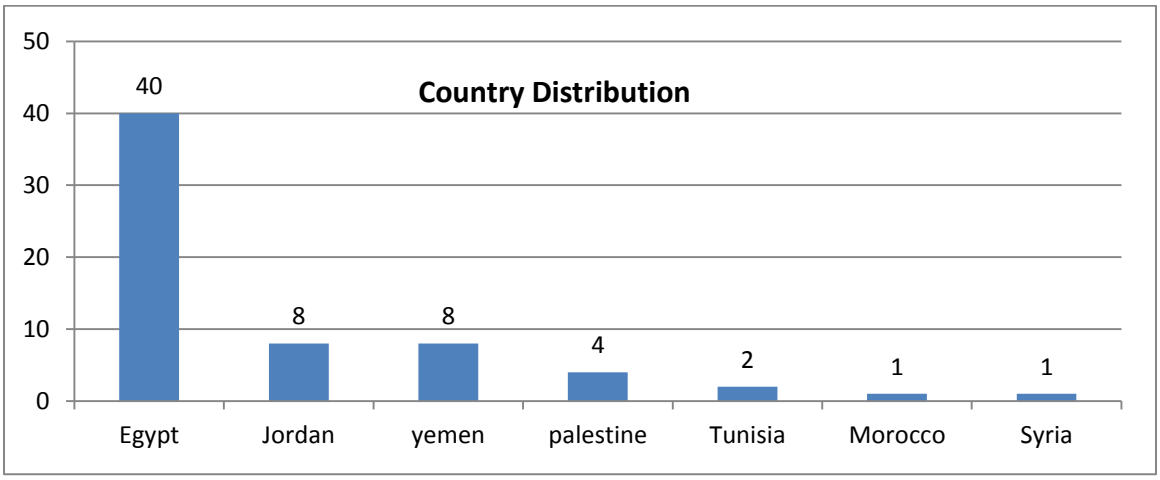
Each unit / module has a number of lessons and the delivery of these lessons is allocated over a period of 3 weeks. More details about the course delivery and calendar is shown in the table below:

UNITS	Lessons	Week		Jan-Feb-Mar 2014		WEBINAR	Exchange	TESTs
Unit 6 «Social Responsibility of the Water Utility»	Health and Safety		WWEEeek 1Reading	Monday	26			
				Tuesday	27			
				Wednesday	28			
	Public Involvement			Thursday	29			
				Friday	30			
				Saturday	31			
	Serving the Poor			Sunday	1			
		Week 2	Reflect-Remix	Monday	2		3 Forum discussion on Facebook	
	Conflict Resolution			Tuesday	3	WEBINAR Unit 6		
				Wednesday	4			
	Mainstreaming HIV/AIDS			Thursday	5			
				Friday	6			Multi choice test & written assignment
	Ethical Behavior			Saturday	7			
				Sunday	8			
Unit 7 «Financial Sustainability»	Financial Management	Week 3	Reading	Monday	9			
				Tuesday	10			
				Wednesday	11			
	Revenue Generation			Thursday	12			
				Friday	13			
				Saturday	14			
	Customer Service			Sunday	15			
		Week 4	Reflect-Remix	Monday	16		3 Forum discussion on Facebook	
				Tuesday	17	WEBINAR Unit 7		
	Non-revenue Water Management			Wednesday	18			
				Thursday	19			
				Friday	20			Multi choice& and written assignment
	Numbers of Employees			Saturday	21			
				Sunday	22			
Unit 8 «Managing for Operational Improvement»	Standard Operating Practices	Week 5	Reading	Monday	23			
				Tuesday	24			
				Wednesday	25			
	Business Process			Thursday	26			
				Friday	27			
	Minimum Service Standards			Saturday	28			
				Sunday	1			
		Week 6	Reflect-Remix	Monday	2		3 Forum discussion on Facebook	
	Quality Management			Tuesday	3	WEBINAR Unit 8		
				Wednesday	4			
	Performance Management			Thursday	5			
				Friday	6			Multi choice test &written assignment
	Crisis Management			Saturday	7			
				Sunday	8			
			Closing	Monday	9			
				Tuesday	11			
				Wednesday	12			Final results

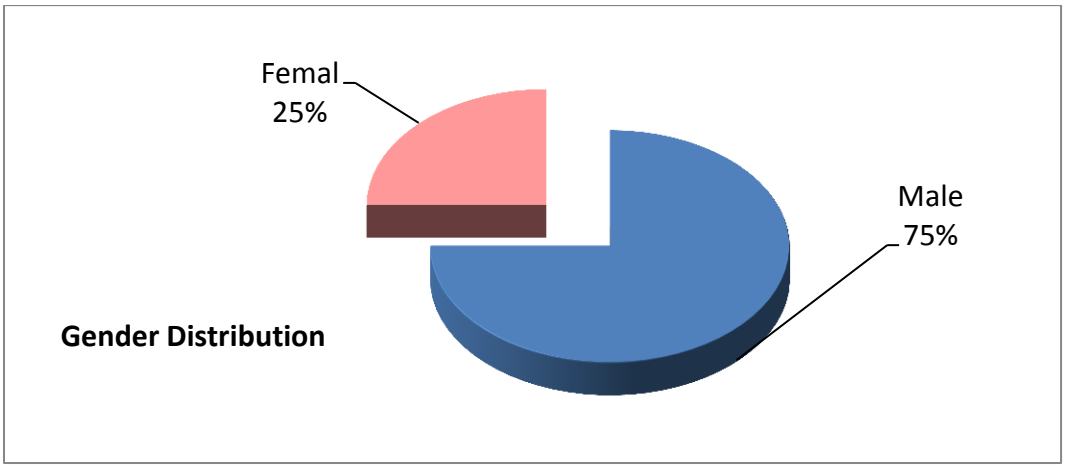
IV. Participants

The total number of accepted participants was 64 (the list is given in annex 2)

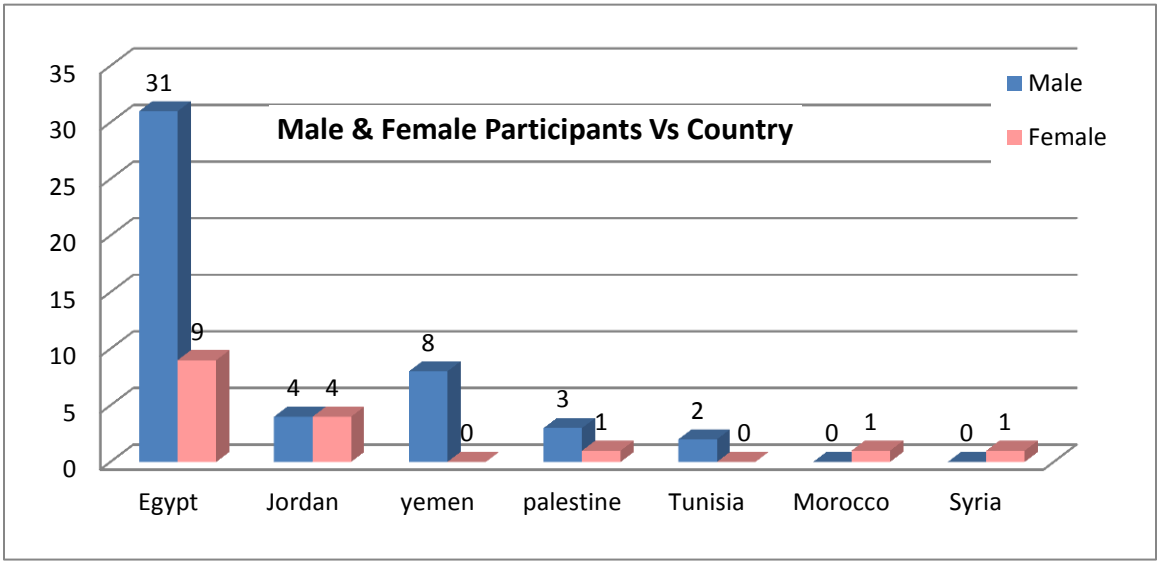
Per country analysis: Participants were selected from 7 different countries. The chart below shows number of participants distributed among the country of origin.



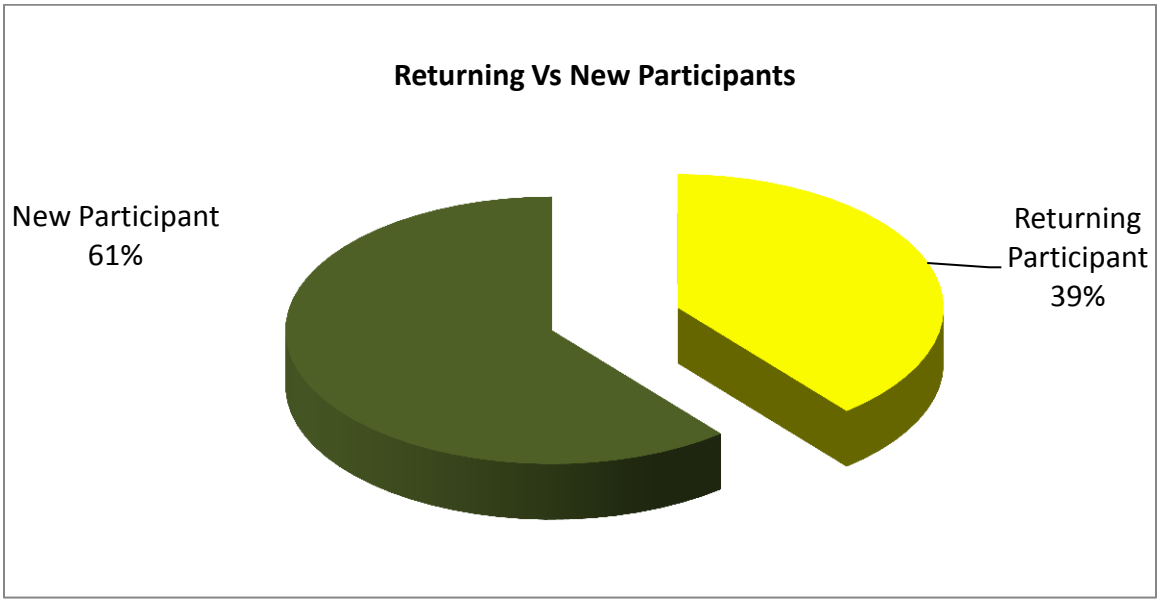
Gender analysis : The Gender balance were taken into consideration during the selection process. The chart below shows the distribution of the participants based on the Gender.



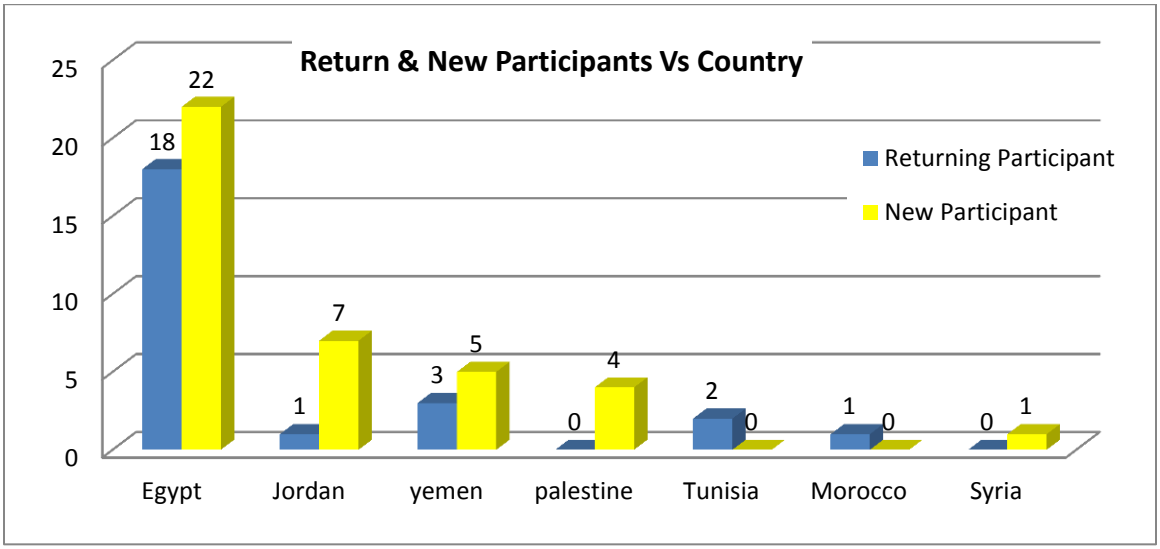
The gender distribution per country was analysed, the result is shown in the chart below.



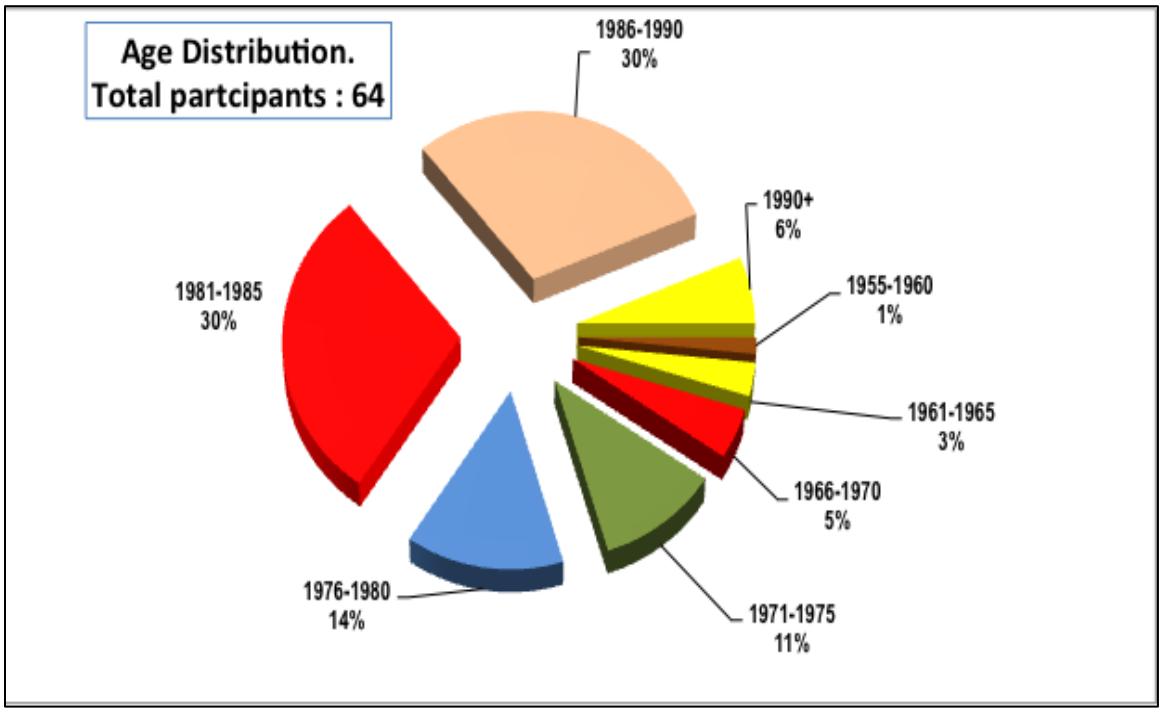
<u>Returning participants analysis</u> : As this is the 4th e.Learning course (eWUM 03, N°2) some of selected the participants participated already in the previous courses. The chart below shows the new and returning participants.



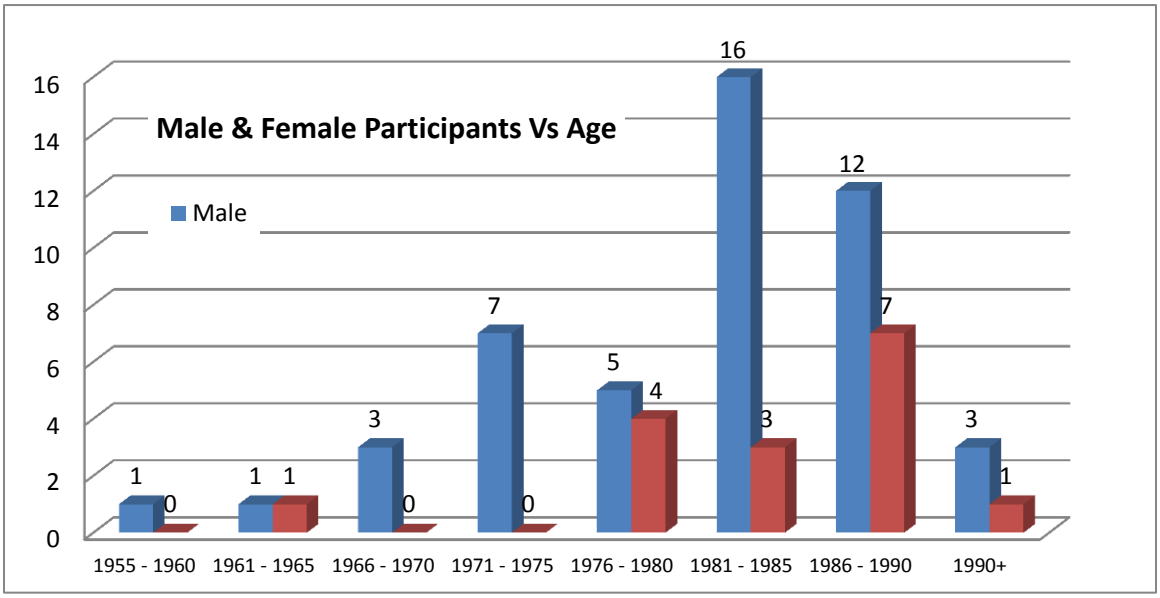
In order to have a closer idea of former participants, the types of participants were analyzed among each country. The Chart below shows the new and the returning participants for each country.



<u>Age distribution analysis</u>: The Age of participants gives an indication on the career level (Junior, Middle, and Senior). The age of the participants was categorized into 7 categories. Each category contains 5 years intervals. The Chart below shows the age Distribution. The graph shows that the majority of the participants are in the age category (1981 to 1985, birth year). That means the age rang form (29 – 34). This is considered a Middle management employee.



The Gender was analyzed among the age categories. The chart shows almost all participants female were born after 1970.



V. Course Team (Tutors and Administration)

Administration Team :

- Ms. Dana Daqqaq – ACWUA
- Mr. Dirk Hangstien – Margraf Publishers

Resource Tutors :

- Mr. Mostafa Biad

E-Tutors Team

- Mr. Jamal Al Salah
- Mr. Mohamed Abdelghani

VI. Course Implementation

The implementation of the online course eWUM 03: "Applying Good Practices" is designed in three units:

1. Unit 6: Social Responsibility
2. Unit 7: Financial Sustainability
3. Unit 8: Operational Improvement.

Each of the units includes a number of learning resources and activities, such as: Reading Material, videos, Cases, webinars and discussion forums. The course implementation extended from March 3rd until April 14th according to the following structure:

1. Unit 6 (Social Responsibility at Water Utility)

Week 1: Acquiring Knowledge (Jan 26rd – Feb 1st 2015)

Main learning activity for first week includes acquiring knowledge about the topic by completing the reading material for the 6 lessons which are:

i. Health & Safety
ii. Public Involvement
iii. Serving the Poor
iv. Conflict Resolution
v. Mainstreaming HIV/AIDS
vi. Ethical Behavior

Week 2: Reflect and Remix (Feb 2nd - 8th 2015)

In this week participants are expected to actively interact with the course content through participating in the following activities:

Webinar: The first online meeting (webinar) for this course was conducted on February 3th, 2015. The topic of the webinar is "Conflict Resolution**".** The webinar included a Power Point presentation, poll questions and guided discussion with participants.

- Webinar Panel:
  - Presenters: Jamal Al Salah
  - Moderator : Mostafa BIAD
  - Administration : Dirk Hangstein

- Attendance: 41 participants joined the webinar out of 53 participants who initially registered to join from all participating countries.

Facebook Discussions: In this activity participants were asked to join the Group Discussions and contribute with their ideas, comments and experiences to the discussions held within the group. As a wrap up and closing of the discussion, participants are asked to submit an Individual Task described by the Facilitating Tutor. The Discussion Topics for this Unit included the following:

- **Forum 1: "**Conflict Resolution"
- **Forum2**: "Public Involvement and Ethical Behavior"

Warp up and closing: Proof of Knowledge (Feb 6th – 8th 2015)

For the wrap up and closing of the unit; participants are asked to perform two individual tasks:

- Perform the Multiple Choice Test which is made available online through the Margraf Website
- Submit an individual assignment based on their learning of the unit and the Facebook discussion group. The individual task for this unit was to prepare a Public Involvement Plan.
- For participants results related to this unit refer to chapter VII-2 of this report.

2. Unit 7 (Financial Sustainability)

Week 1: Acquiring Knowledge (Feb 9th – 15th 2015)

Main learning activity for the first week includes acquiring knowledge about the topic by completing the reading material for the 5 lessons which are:

i. Financial Management
ii. Revenue Generation
iii. Customer Service
iv. Non-Revenue Water
v. Number of Employees

Week 2: Reflect and Remix (Feb 16th – 22nd 2015)

In this week participants are expected to actively interact with the course content through participating in the following activities:

Webinar: The webinar was conducted on Feb 17th 2015. The main topic of the session was "**Financial Sustainability for Water utilities, pricing System".** The webinar included a Power Point presentation, poll questions and guided discussion with participants.

- **Webinar Panel** :
  - Presenter: Mostafa BIAD
  - Moderator: Mohamed Abd Alghani
  - Administration : Dirk Hangstein
- **Attendance**: 41 participants joined the webinar out of 46 participants who were registered to join from different participating countries.

Facebook discussions: In this activity participants were asked to join at least one of the Group Discussions and contribute ideas, comments and experiences to the discussions held within the group in addition to submitting an Individual Task described by the Facilitating Tutor. The Discussion Topics for this Unit included the following:

- **Forum 1** : "Customer Service, the Neglected Pillard"
- **Forum 2** : "Over staffing and Number of Employees"

Warp up and closing: Proof of Knowledge (Feb 20th – 22nd 2015)

For the wrap up and closing of the unit; participants are asked to perform two individual tasks:

- Perform the Multiple Choice Test which is made available online through the Margraf Website
- Submit an individual assignment: action plan.

For participants results related to this unit refer to chapter VII-2 of this report.

3. Unit 8 (Operational Improvement)

Week 1: Acquiring Knowledge (Feb 23rd – March 1st 2015)

Main learning activity for the first week includes acquiring knowledge about the topic by completing the reading material for the 5 lessons which are Standard Operating Procedures

i. Business Process
ii. Minimum Service Standards
iii. Quality Management
iv. Performance Management
v. Crisis Management

Week 2: Reflect and Remix (March 2nd - 8th 2015)

In this week participants are expected to actively interact with course content through participating in the following activities:

Webinar: The webinar was conducted on March 3rd 2015 and the main topic of the webinar is "Benchmarking in practice, Learning from the best**".** The webinar included a Power Point presentation, poll questions and guided discussion with participants.

- **Webinar Panel :**
  - Presenters : Mostafa Biad
  - Moderator : Jamal AlSalah
  - Administrator : Dirk Hangstein
- **Attendance:** 41 participants joined the webinar out of 48 participants who were registered to join from participating countries.

Facebook Discussions: In this activity participants were asked to join at least one of the Group Discussions and contribute ideas comments and experiences to the discussions held within the group in addition to submitting an Individual Task described by the Facilitating Tutor. The Discussion Topics for this Unit included the following:

- **Forum 1: "**Performance Management"
- **Forum2**: "Crisis Management"

Warp up and closing: Proof of Knowledge (March 6th –8th 2015)

For the wrap up and closing of the unit; participants are asked to perform two individual tasks:

- Perform the Multiple Choice Test which is made available online through the Margraf Website.
- Submit an individual assignment based on their learning of the unit and the Facebook discussion group. The individual task for this unit was about preparing a performance improvement plan.

For participants results related to this unit refer to chapter VII-2 of this report.

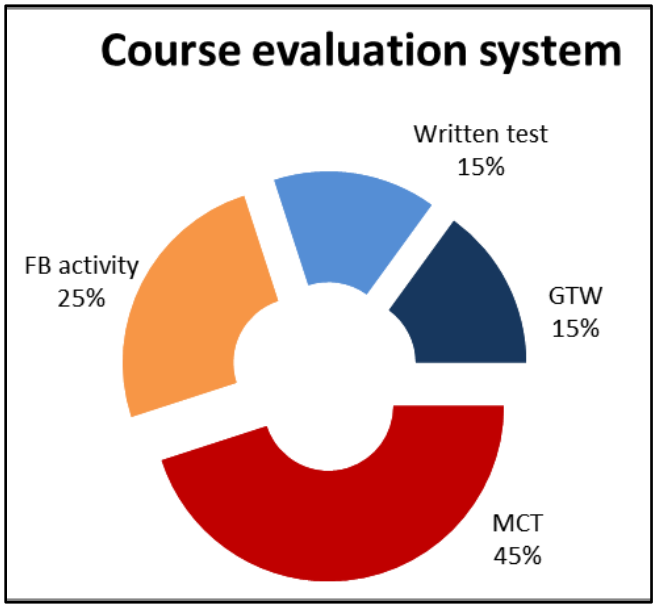
VII. Evaluation and Recommendations

1. Evaluation Criteria

The evaluation system was decided in Amman meeting with the enlarged tutors group, GIZ, ACWUA and Margraf, however and according to the recommendations of the previous courses (eWUM03), it was decide by the organizers to adopt the new marking system (described below). Indeed, the new marking system gives more weight to exchange and participation and does not take in account the reading activity:

- GotoWebinar (GTW) was given 15% in each of the units to reward participants who were able to attend and participate in the GTW session.
- Facebook (FB) contribution and interaction was given a total of 25 % : evaluating activity of the participants in the FB group in terms of effective comments on tutors posts and interacting with other participants and bringing new ideas to the discussions.
- Multi choice test (MCT) has a weight of 45 %
- The written test was marked on 15 %

Unit	GTW	FB Activity	MCT	Written Test	Total Score
Unit 6 **Unit 7** **Unit 8**	15%	25%	45%	15%	100%



2. Results

Total number of participants enrolled in the eWUM03 among the 64 accepted is 54 (confirmed participation and completed their profile on the course platform).

The results for the 3 units are as follow (detailed results are given in annex 3) :

°°°° Results UNIT 6 °°°°

54	100%	Participants (confirm registration to Unit 6)	
43	80%	Unit Credit granted	
		9	Oustanding
		14	Very Good
		7	Good
		13	Sufficient
11	20%	Unit Credit Not Granted	
		4	Not sufficient
		7	Inactive

°°°° Results UNIT 7 °°°°

53	100%	Participants (confirm registration to Unit 7)	
36	68%	Unit Credit granted	
		7	Oustanding
		10	Very Good
		9	Good
		10	Sufficient
17	32%	Unit Credit Not Granted	
		8	Not sufficient
		9	Inactive

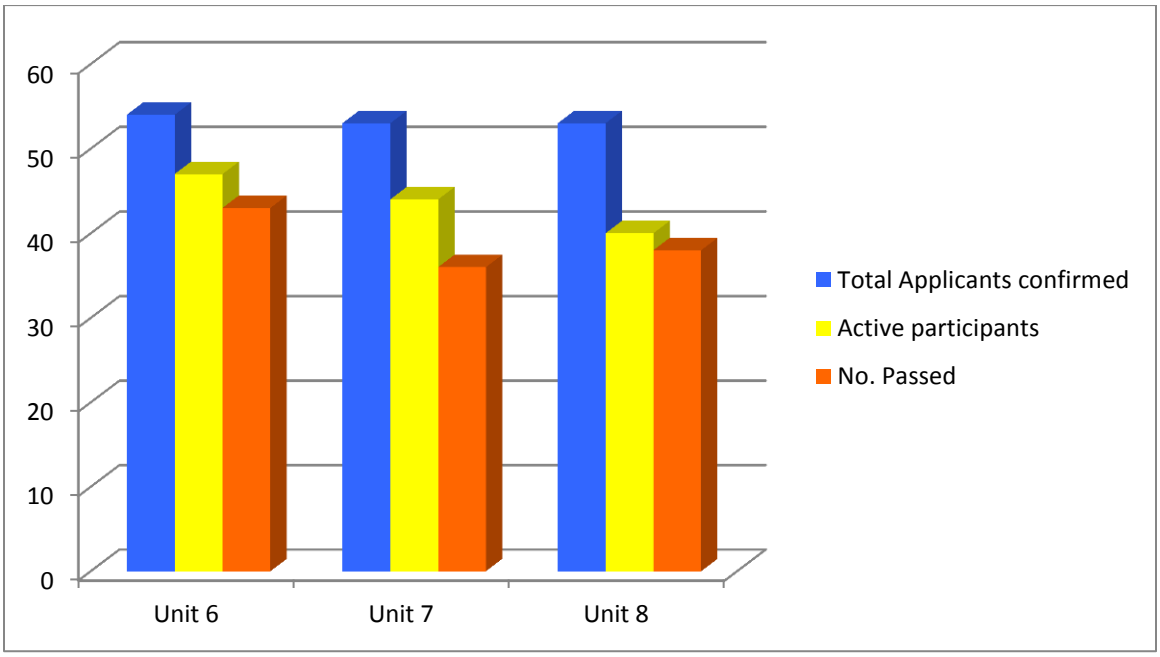
°°°° Results UNIT 8 °°°°

53	100%	Participants (confirm registration to Unit 8)	
38	72%	Unit Credit granted	
		17	Oustanding
		11	Very Good
		8	Good
		2	Sufficient
15	28%	Unit Credit Not Granted	
		2	Not sufficient
		13	Inactive

In the eWUM 03 course, the average percent of inactive participants is 18%; this percentage was higher in Unit 7 and Unit 8 considered rather technical modules and involving some specials lessons (Health and Safety, NRW, Performance improvement, financial management, etc…)

The success rate is average of 88% with 91 in Unit 6, 82% in Unit 7 and 95 % in Unit 8.

Unit	Total Applicants confirmed	Inactive Applicants	Active participants	No. Passed	% Passed/active participants
Unit 6	54	7	47	43	91%
Unit 7	53	9	44	36	82%
Unit 8	53	13	40	38	95%



3. Recommendations

- More efforts on advertisement of the e.courses, involve partners and utilities, and other channels of possible . Refer and review the marketing strategy.
- Try to stick to the announced dates, as postponement might lead to confusion at participants' side.
- Give more room to participants in the webinar sessions, could be through more poll questions, introduce ideas such as one or more slides, involve some of them in the presentation, would lead to more interactive webinar sessions, this would also encourage participants to positively compete for participation.
- Encourage participants to use the Arabic Language
- Start creating pool of questions for the courses / lessons, this would lead to variant MCT.
- Adopt an evaluation tool(s), for the course activities, Mohammed has introduced some available tools for scanning contributions and then evaluation of participants: "Grytics" & "Sociograph"
    - Go for a try of "**Grytics**" (not free) and one for "**Sociograph"+ Excel Formula** in next course (Sanitation)

- Regarding the Group forums in Face Book it is recommended to:
    - Close the old groups!
      (The e-tutors leave all related groups on Facebook (it is not possible to erase the group directly but when there is no administrator left the group will be disabled).
    - For the next courses (see the «Marketing concept») we should start to incorporate new groups. (Preferably for each course)

4. Suggestions from participants

- The Course Period may be longer.
- Having more than one webinar.
- When the home assignment is delivered to the tutors, the tutors must confirm that it is received successfully.
- The tutors must guide us and drop hint with the subject is more important in order to focus more and more..
- Evaluation must depend on assignment and final exam. Reduce the value or Facebook.

Annex

Annex 1: Announcement

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit, Germany in close cooperation with ACWUA (Arab Countries Water Utilities Association) and the WAVEplus program for Kenya, South Sudan, Uganda, Tanzania and Zambia offer an **interactive e-Learning course** for dynamic and result oriented individuals working as senior managers and supervisors in the water sector who feel the need to grow in the career and personal development.

Capacity Development to Enhance Commercial & Technical Utility Management
«Applying Good Practices» (CD-UM 03)

March 03-17, 2014: Unit 6 «Social Responsibility of the Water Utility»

Study, Group work, Discussions and interactive Lectures covering these six lessons:

Health and Safety | Public Involvement | Serving the Poor | Conflict Resolution
Mainstreaming HIV/AIDS | Ethical Behavior

March 17-31, 2014: Unit 7 «Financial Sustainability»

Study, Group work, Discussions and interactive Lectures covering these five lessons:

Financial Management | Revenue Generation | Customer Service
Non-revenue Water Management | Numbers of Employees

March 17-31, 2014: Unit 8 «Managing for Operational Improvement»

Study, Group work, Discussions and interactive Lectures covering these six lessons:

Standard Operating Practices | Business Process | Minimum Service Standards |
Quality Management | Performance Management | Crisis Management

More Information & Application:

http://acwua.mangraf-learning.de or
http://wave-water.net/learning

Applications (online only): February 10th until/with 20th, 2014

Annex 2: Accepted Participants list

	Full Name	Country	e-mail Address
1	Abdulrahman Ali Ahmed Reziq	Yemen	abdureziq@gmail.com
2	Abeer Almomani	Jordanian	a_momani@yahoo.com
3	Adel Qaid Ahmed Maaodhah	Yemen	cengadel@yahoo.com
4	Adel Yahya Mohammed Al-Haddad	Yemen	adel.alhadad@hotmail.com
5	Ahmed Abd El-Aleem Abd El-Aleem Hendy	Egyptian	ahmed.hendy@hcww.com.eg
6	Ahmed Adel Ahmed Ramdan	Egyptian	sedak100@yahoo.com
7	Ahmed Elsayed Ragheb	Egyptian	ahmed.sayed@hcww.com.eg
8	Ahmed Mamdouh Said Abo Hamed	Egyptian	doha_chem@yahoo.com
9	Ahmed Mohamed Omar Mohamed	Egyptian	ahmed_micro1@yahoo.com
10	Ali Bin Ali Jadel	Yemen	alijadel@gmail.com
11	Ali Mohamed Ali Tmmam	Egyptian	eng_alitmmam2000@yahoo.com
12	Ali Tayseer Mohammad Odeh	Palestinian	ato.90@live.com
13	Asmaa Abdehamid Ali	Egyptian	eng_asmaa4a@yahoo.com
14	Asmaa Mustafa Kamel Osemy	Egyptian	eng_asmaamustafa@yahoo.com
15	Ayman Abdallah Mahmoud	Jordanian	aaburawwa@yahoo.com
16	Ayman Ahmed Bassiouny Elamawy	Egyptian	aymanal3mawy@gmail.com
17	Doaa Ali Mahmoud	Egyptian	engdali33@gmail.com
18	Ehab Zaki Abdel Hady Ahmed	Egyptian	ehabzaki6@yahoo.com
19	Emad Eldin Zaghloul	Egyptian	emad2zaghloul@gmail.com
20	Firas Alwadi	Palestinian	firaswadi@hotmail.com
21	Fuad Saleh Al-Awzari	Yemen	Foz_1974@yahoo.com
22	Ghada El-Sayed Mohamed Mohamed Hegazy	Egyptian	ghada.hegazy@hcww.com.eg
23	Habib Jomaa	Tunisian	jomaahabib@gmail.com
24	Hala Alhamed	Syrian	hala.alhamed@yahoo.com
25	Hamada Abd El-Karem Ali	Egyptian	eng_hamada6@yahoo.com
26	Hanadi Bader	Palestinian	hanadibader@yahoo.com
27	Hani Muhammad Abdulall Mahmoud	Egyptian	hani.abdulall@gmail.com
28	Heba Ahmed El Khateeb Kamal	Egyptian	heba_ahm_00@yahoo.com
29	Hend Mohamed El-Sayed	Egyptian	eng_hend_2010@yahoo.com
30	Hind Ben-Najim	Moroccan	hind.enim@gmail.com
31	Ibrahim Abdeen Ibrahim Abdeen	Egyptian	hema_abdeen@yahoo.com
32	Ibrahim Abdulkareem Alhaimi	Yemen	alhaimiib2000@yahoo.com
33	Ibrahim Hamdy Abd El Hady Ahmed	Egyptian	eng_ielbresy@yahoo.com
34	Izziddin Merwan Izziddin Alshawa	Palestinian	izzshawa@gmail.com
35	Khaled Douglas	Jordanian	Khaled-Douglas@hotmail.com
36	Khaled Mohamed Mohamed Ahmed	Egyptian	khaled.mohamed@hotmail.co.uk
37	Khalil Ahmad .M. Al Droube	Yemen	drobe_drobe2003@yahoo.com
38	Kharroubi Abdeljelil	Tunisian	khajallil@yahoo.fr
39	Maged Ahmed Shaker	Egyptian	majed.ahmed@hcww.com.eg
40	Mahmoud F.Doro	Libyan	brnadoro@yahoo.com
41	Mahmoud Gamal Shaban	Egyptian	midogam2010@yahoo.com

42	Mahmoud Gomaa Hussein Mosallam	Egyptian	mahmoudgomaa1@hotmail.com
43	Mahmoud Mohamed Fouad Hussein	Egyptian	mahmoudfouad82@gmail.com
44	Mai Mostafa Ismaeil Hassan	Egyptian	mai.mostafa11@yahoo.com
45	Mamdouh Mohamed Zorik	Egyptian	mamdouh_zorik@yahoo.com
46	Marwa Saad Embaby Radwan	Egyptian	marwasaad86@yahoo.com
47	Mekawy Farag Almekawy Pair	Egyptian	mekawy_pair@yahoo.com
48	Mohamed Abdel-Hamid Mohamed Salem	Egyptian	salemm2011@yahoo.com
49	Mohamed Abdelhady Meselhi Ebrahim Afifi	Egyptian	mameab_mic@yahoo.com
50	Mohamed Ahmed Halkaha	Egyptian	mohamed.ahmed9382@yahoo.com
51	Mohamed Ali Ibrahim Elekhnawy	Egyptian	mohamed.elekhnawy@hcww.com.eg
52	Mohamed Mamdouh Kotb	Egyptian	medomamdouh123@hotmail.com
53	Mohammad Abdelrahman Abdelhadi	Jordanian	mohammad.abdelhadi@daom.jo
54	Mohammed Radi Mohammed	Egyptian	mohamed.radi@hcww.com.eg
55	Moustafa Hamdy Hassan Mohammed	Egyptian	hamdy0337@outlook.com
56	Muhammad Abdul Monem Ibrahim Saied	Egyptian	chemistaqua@gmail.com
57	Patricia Bakir	Jordanian	bakirp@gmail.com
58	Saja Khashman	Jordanian	saja.khashman@gmail.com
59	Samar Adel Abdelrazik Salem	Egyptian	ch.samar_adel@yahoo.com
60	Suzan Allahham	Jordanian	suzanlahham@hotmail.com
61	Taleb Mohammed Naji	Yemen	tmnaji@gmail.com
62	Tamer Mohamed Reda Abdel Mageed Mostafa Dagher	Egyptian	tamerdagherr@mail.com
63	Tarek Mahmoud Mohamed	Egyptian	eng.tarek2510@yahoo.com
64	Wael ABd Al-Raheem Abo Al-Magd	Egyptian	Wael.magd@yahoo.com

Annex 3: participant's results

			Unit 6		Unit 7		Unit 8		
N°	Name \ User Profile Field	Email	Result	Performance	Result	Performance	Result	Performance	Tutor
1	Ahmed abd el-aleem abd el-aleem hendy	ahmed.hendy@hcww.com.eg	100	Outstanding	97	Outstanding	100	Outstanding	Mohamed
2	Emad Eldin Zaghloul	emad2zaghloul@gmail.com	95	Outstanding	97	Outstanding	88	Outstanding	Mohamed
3	Wael A bd Al-Raheem Abo Al-Magd	Wael.magd@yahoo.com	92	Outstanding	85	Outstanding	90	Outstanding	Mohamed
4	Mohamed Abdel-Hamid Mohamed Salem	salemm2011@yahoo.com	90	Outstanding	97	Outstanding	100	Outstanding	Mohamed
5	Moustafa Hamdy Hassan Mohammed	hamdy0337@outlook.com	90	Outstanding	79	Very Good	80	Very Good	Mohamed
6	Mahmoud Gomaa Hussein Mosallam	mahmoudgomaa1@hotmail.com	90	Outstanding	83	Very Good	75	Very Good	Mohamed
7	Ibrahim Abdeen Ibrahim Abdeen	hema_abdeen@yahoo.com	89	Outstanding	88	Outstanding	96	Outstanding	Mohamed
8	Mohamed Ali Ibrahim Elekhnawy	mohamed.elekhnawy@hcww.com.eg	89	Outstanding	83	Very Good	92	Outstanding	Mohamed
9	Ahmed Mohamed Omar Mohamed	ahmed_micro1@yahoo.com	89	Outstanding	77	Very Good	85	Outstanding	Mohamed
10	Mohamed Mamdouh Kotb	medomamdouh123@hotmail.com	84	Very Good	86	Outstanding	97	Outstanding	Mohamed
11	Patricia Bakir	bakirp@gmail.com	84	Very Good	59	sufficient	-	Inactive	Jamal
12	Mahmoud Mohamed Fouad Hussein	mahmoudfouad82@gmail.com	81	Very Good	72	Very Good	70	Very Good	Mohamed
13	Mamdouh Mohamed Zorik	mamdouh_zorik@yahoo.com	78	Very Good	79	Very Good	85	Outstanding	Mohamed
14	Mekawy Farag Almekawy Pair	mekawy_pair@yahoo.com	78	Very Good	60	Good	85	Outstanding	Mohamed
15	Maged Ahmed Shaker	maged.ahmed@hcww.com.eg	77	Very Good	78	Very Good	88	Outstanding	Mohamed
16	Suzan Allahham	suzanlahham@hotmail.com	77	Very Good	66	Good	63	Good	Jamal
17	ahmed elsayed ragheb	ahmed2020ragheb@gmail.com	76	Very Good	73	Very Good	94	Outstanding	Mohamed
18	Ayman Ahmed Bassiouny Elamawy	aymanal3mawy@gmail.com	75	Very Good	63	Good	85	Outstanding	Mohamed
19	Mohammed Radi Mohammed	mohamed.radi@hcww.com.eg	75	Very Good	57	sufficient	85	Outstanding	Mohamed
20	mohamed ahmed halkaha	mohamed.ahmed9382@yahoo.com	74	Very Good	85	Outstanding	80	Very Good	Mohamed
21	Tamer Mohamed Reda Abdel Mageed Mostafa Dagher	tamerdagherr@mail.com	72	Very Good	68	Good	70	Very Good	Mohamed
22	khaled Mohamed Mohamed Ahmed	khaled.mohamed@hotmail.co.uk	72	Very Good	60	Good	85	Outstanding	Mohamed
23	Kharroubi Abdeljelil	khajallil@yahoo.fr	70	Very Good	60	Good	77	Very Good	Jamal
24	Abeer Almomani	a_momani@yahoo.com	69	Good	8	not sufficient	-	Inactive	Jamal
25	asmaa mustafa kamel osemy	eng_asmaamustafa@yahoo.com	69	Good	53	sufficient	74	Very Good	Mohamed
26	Mohamed Abdelhady Meselhi Ebrahim Afifi	mameab_mic@yahoo.com	68	Good	53	sufficient	85	Outstanding	Mohamed
27	Hani Muhammad Abdulall Mahmoud	hani.abdulall@gmail.com	67	Good	70	Very Good	86	Outstanding	Mohamed
28	muhammad abdul monem Ibrahim saied	chemistaqua@gmail.com	61	Good	50	sufficient	50	sufficient	Mohamed
29	Doaa Ali Mahmoud	engdali33@gmail.com	61	Good	42	not sufficient	77	Very Good	Mohamed
30	Ghada El-Sayed Mohamed Mohamed Hegazy	ghada.hegazy@hcww.com.eg	60	Good	37	not sufficient	8	not sufficient	Mohamed
31	Hend Mohamed El-Sayed	eng_hend_2010@yahoo.com	57	sufficient	52	sufficient	60	Good	Mohamed
32	ADEL QAID AHMED MAAODHAH	cengadel@yahoo.com	57	sufficient	52	sufficient	63	Good	Jamal
33	Abdulrahman Ali Ahmed Reziq	abdureziq@gmail.com	55	sufficient	46	not sufficient	71	Very Good	Jamal
34	Heba Ahmed El khateeb Kamal	heba_ahm_00@yahoo.com	55	sufficient	41	not sufficient	60	Good	Mohamed
35	Ahmed mamdouh Said Abo Hamed	doha_chem@yahoo.com	55	sufficient	40	not sufficient	52	sufficient	Mohamed

36	Mai Mostafa Ismaeil Hassan	mai.mostafa11@yahoo.com	52	sufficient	58	sufficient	60	Good	Mohamed
37	Hala Alhamed	hala.alhamed@yahoo.com	52	sufficient	14	not sufficient	-	Inactive	Jamal
38	Marwa Saad Embaby Radwan	marwasaad86@yahoo.com	51	sufficient	62	Good	76	Very Good	Mohamed
39	Ehab Zaki Abdel Hady Ahmed	ehabzaki6@yahoo.com	51	sufficient	52	sufficient	60	Good	Mohamed
40	Ibrahim AbdulKareem Alhaimi	alhaimiib2000@yahoo.com	51	sufficient	35	not sufficient	62	Good	Jamal
41	Ahmed Adel Ahmed Ramdan	sedak100@yahoo.com	51	sufficient	61	Good	60	Good	Mohamed
42	tarek mahmoud mohamed	eng.tarek2510@yahoo.com	51	sufficient	60	Good	80	Very Good	Mohamed
43	Taleb Mohammed Naji	tmnaji@gmail.com	50	sufficient	52	sufficient	42	not sufficient	Jamal
44	asmaa abdehamid ali	eng_asmaa4a@yahoo.com	34	not sufficient	-	Inactive	-	Inactive	Mohamed
45	mahmoud gamal shaban	midogam2010@yahoo.com	29	not sufficient	-	Inactive	-	Inactive	Mohamed
46	Ali Tayseer Mohammad Odeh	ato.90@live.com	26	not sufficient	-	Inactive	-	Inactive	Jamal
47	Ayman Abdallah Mahmoud	aaburawwa@yahoo.com	13	not sufficient	-	Inactive	-	Inactive	Jamal
48	Mohammad Abdelrahman Abdelhadi	mohammad.abdelhadi@daom.jo	5	Inactive	-	Inactive	-	Inactive	Jamal
49	Hanadi bader	hanadibader@yahoo.com	5	Inactive		Inactive		Inactive	Jamal
50	Firas Alwadi	firaswadi@hotmail.com	-	Inactive	75	Very Good	-	Inactive	Jamal
51	Ibrahim Hamdy Abd El Hady Ahmed	eng_ielbresy@yahoo.com	-	Inactive	-	Inactive	-	Inactive	Mohamed
52	Ali Mohamed Ali Tmmam	eng_alitmmam2000@yahoo.com	-	Inactive	-	Inactive	-	Inactive	Mohamed
53	Fuad Saleh Al-Awzari	Foz_1974@yahoo.com	-	Inactive	-	Inactive	-	Inactive	Jamal
54	Izziddin Merwan Izziddin Alshawa	izzshawa@gmail.com	-	Inactive	-	Inactive	-	Inactive	Jamal

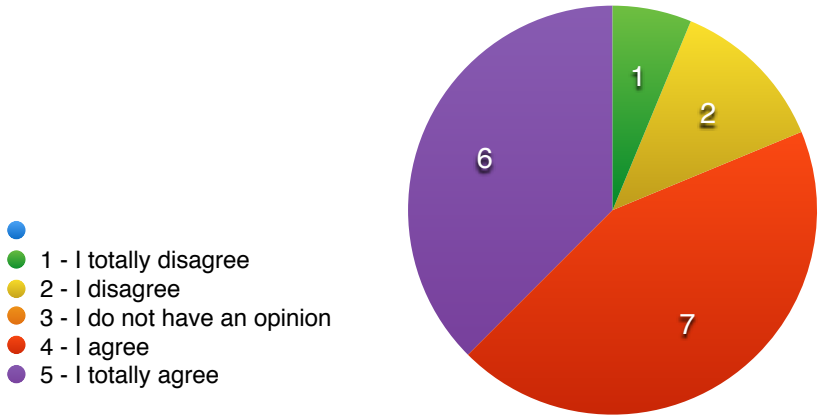
Annex 4: Final results and certificates awarding

N°	Name	Email	Credit Unit 6	Credit Unit 7	Credit Unit 8	Certificate
1	Ahmed Abd El-Aleem Abd El-Aleem Hendy	ahmed.hendy@hcww.com.eg	YES	YES	YES	YES
2	Mohamed Abdel-Hamid Mohamed Salem	salemm2011@yahoo.com	YES	YES	YES	YES
3	Emad Eldin Zaghloul	emad2zaghloul@gmail.com	YES	YES	YES	YES
4	Ibrahim Abdeen Ibrahim Abdeen	hema_abdeen@yahoo.com	YES	YES	YES	YES
5	Wael A Bd Al-Raheem Abo Al-Magd	Wael.magd@yahoo.com	YES	YES	YES	YES
6	Mohamed Mamdouh Kotb	medomamdouh123@hotmail.com	YES	YES	YES	YES
7	Mohamed Ali Ibrahim Elekhnawy	mohamed.elekhnawy@hcww.com.eg	YES	YES	YES	YES
8	Ahmed Mohamed Omar Mohamed	ahmed_micro1@yahoo.com	YES	YES	YES	YES
9	Moustafa Hamdy Hassan Mohammed	hamdy0337@outlook.com	YES	YES	YES	YES
10	Mahmoud Gomaa Hussein Mosallam	mahmoudgomaa1@hotmail.com	YES	YES	YES	YES
11	Maged Ahmed Shaker	majed.ahmed@hcww.com.eg	YES	YES	YES	YES
12	Ahmed Elsayed Ragheb	ahmed2020ragheb@gmail.com	YES	YES	YES	YES
13	Mamdouh Mohamed Zorik	mamdouh_zorik@yahoo.com	YES	YES	YES	YES
14	Mohamed Ahmed Halkaha	mohamed.ahmed9382@yahoo.com	YES	YES	YES	YES
15	Mahmoud Mohamed Fouad Hussein	mahmoudfouad82@gmail.com	YES	YES	YES	YES
16	Ayman Ahmed Bassiouny Elamawy	aymanal3mawy@gmail.com	YES	YES	YES	YES
17	Hani Muhammad Abdulall Mahmoud	hani.abdulall@gmail.com	YES	YES	YES	YES
18	Mekawy Farag Almekawy Pair	mekawy_pair@yahoo.com	YES	YES	YES	YES
19	Khaled Mohamed Mohamed Ahmed	khaled.mohamed@hotmail.co.uk	YES	YES	YES	YES
20	Mohammed Radi Mohammed	mohamed.radi@hcww.com.eg	YES	YES	YES	YES
21	Tamer Mohamed Reda Abdel Mageed Mostafa Dagher	tamerdagherr@mail.com	YES	YES	YES	YES
22	Kharroubi Abdeljelil	khajallil@yahoo.fr	YES	YES	YES	YES
23	Mohamed Abdelhady Meselhi Ebrahim Afifi	mameab_mic@yahoo.com	YES	YES	YES	YES
24	Suzan Allahham	suzanlahham@hotmail.com	YES	YES	YES	YES
25	Asmaa Mustafa Kamel Osemy	eng_asmaamustafa@yahoo.com	YES	YES	YES	YES
26	Tarek Mahmoud Mohamed	eng.tarek2510@yahoo.com	YES	YES	YES	YES
27	Marwa Saad Embaby Radwan	marwasaad86@yahoo.com	YES	YES	YES	YES
28	Adel Qaid Ahmed Maaodhah	cengadel@yahoo.com	YES	YES	YES	YES
29	Ahmed Adel Ahmed Ramdan	sedak100@yahoo.com	YES	YES	YES	YES
30	Mai Mostafa Ismaeil Hassan	mai.mostafa11@yahoo.com	YES	YES	YES	YES
31	Hend Mohamed El-Sayed	eng_hend_2010@yahoo.com	YES	YES	YES	YES
32	Ehab Zaki Abdel Hady Ahmed	ehabzaki6@yahoo.com	YES	YES	YES	YES
33	Muhammad Abdul Monem Ibrahim Saied	chemistaqua@gmail.com	YES	YES	YES	YES
34	Taleb Mohammed Naji	tmnaji@gmail.com	YES	YES	NO	YES
35	Patricia Bakir	bakirp@gmail.com	YES	YES	NO	YES
36	Abdulrahman Ali Ahmed Reziq	abdureziq@gmail.com	YES	NO	YES	YES

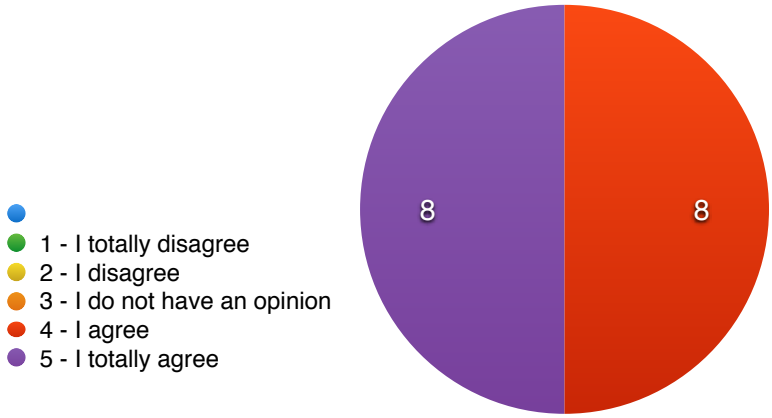
37	Doaa Ali Mahmoud	engdali33@gmail.com	YES	NO	YES	YES
38	Heba Ahmed El Khateeb Kamal	heba_ahm_00@yahoo.com	YES	NO	YES	YES
39	Ibrahim Abdulkareem Alhaimi	alhaimiib2000@yahoo.com	YES	NO	YES	YES
40	Ahmed Mamdouh Said Abo Hamed	doha_chem@yahoo.com	YES	NO	YES	YES
41	Ghada El-Sayed Mohamed Mohamed Hegazy	ghada.hegazy@hcww.com.eg	YES	NO	NO	NO
42	Abeer Almomani	a_momani@yahoo.com	YES	NO	NO	NO
43	Hala Alhamed	hala.alhamed@yahoo.com	YES	NO	NO	NO
44	Firas Alwadi	firaswadi@hotmail.com	NO	YES	NO	NO
45	Asmaa Abdehamid Ali	eng_asmaa4a@yahoo.com	NO	NO	NO	NO
46	Mahmoud Gamal Shaban	midogam2010@yahoo.com	NO	NO	NO	NO
47	Ali Tayseer Mohammad Odeh	ato.90@live.com	NO	NO	NO	NO
48	Ayman Abdallah Mahmoud	aaburawwa@yahoo.com	NO	NO	NO	NO
49	Mohammad Abdelrahman Abdelhadi	mohammad.abdelhadi@daom.jo	NO	NO	NO	NO
50	Hanadi Bader	hanadibader@yahoo.com	NO	NO	NO	NO
51	Ali Mohamed Ali Tmmam	eng_alitmmam2000@yahoo.com	NO	NO	NO	NO
52	Fuad Saleh Al-Awzari	Foz_1974@yahoo.com	NO	NO	NO	NO
53	Ibrahim Hamdy Abd El Hady Ahmed	eng_ielbresy@yahoo.com	NO	NO	NO	NO
54	Izziddin Merwan Izziddin Alshawa	izzshawa@gmail.com	NO	NO	NO	NO

Annex 5: Evaluation questionnaire Results

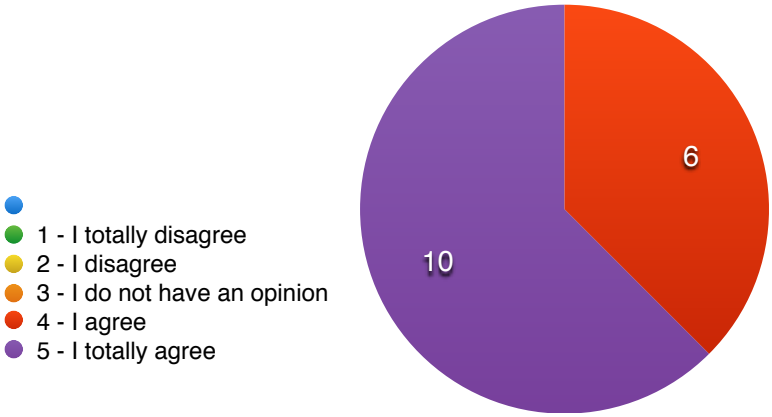
1. **The course announcement informed me sufficiently about the requirements to join the course**



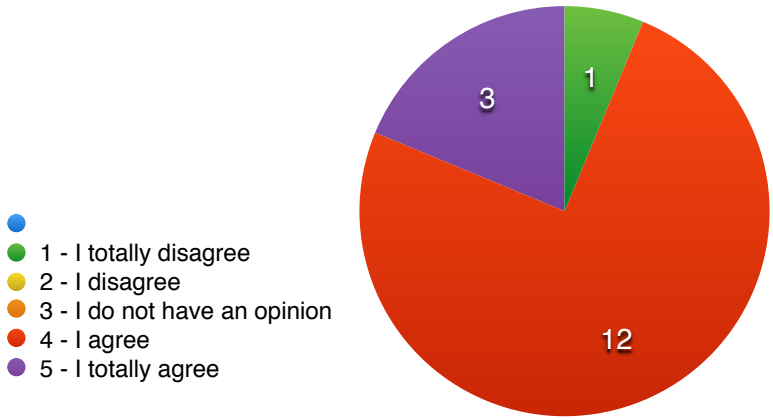
2. **The online application for the course was easy to use**



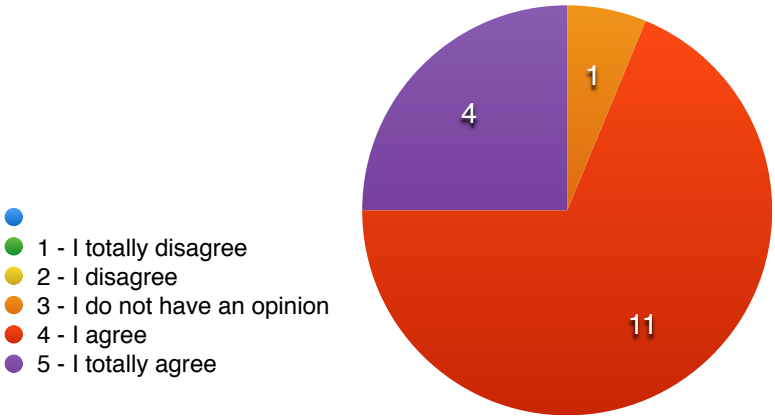
3. **I received my login to the course and further information timely before the course**



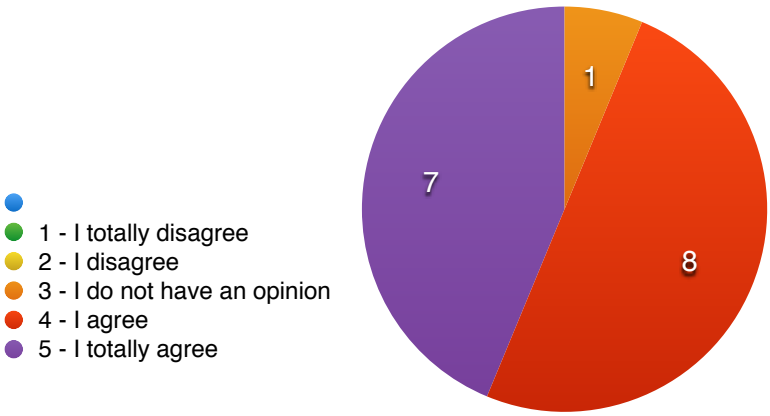
4. **The tutors were able to motivate communication among participants**



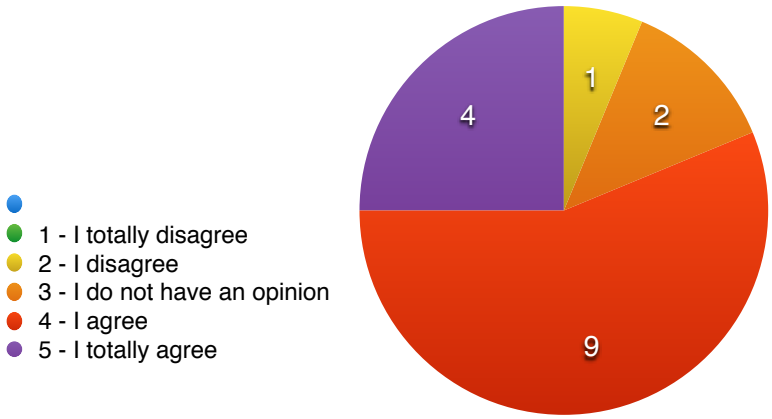
5. **I am satisfied with the tutor's guidance and answers to my questions**



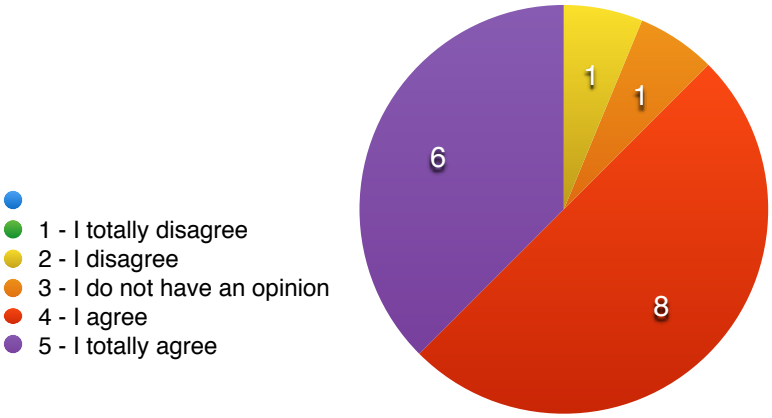
6. **The tutors followed up the tasks and activities effectively**



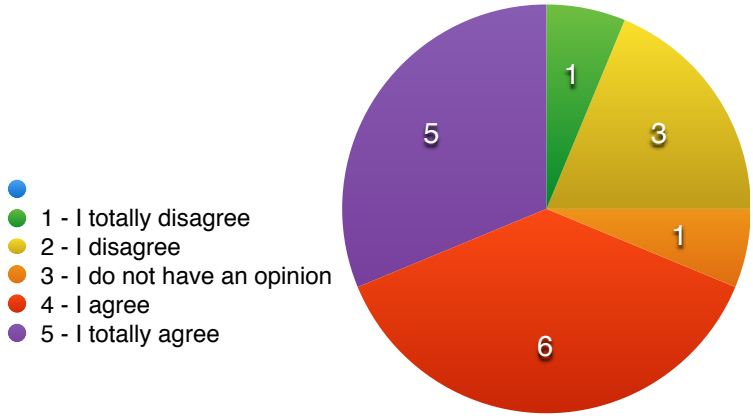
7. **I profited from the exchange with participants from my OWN REGION**



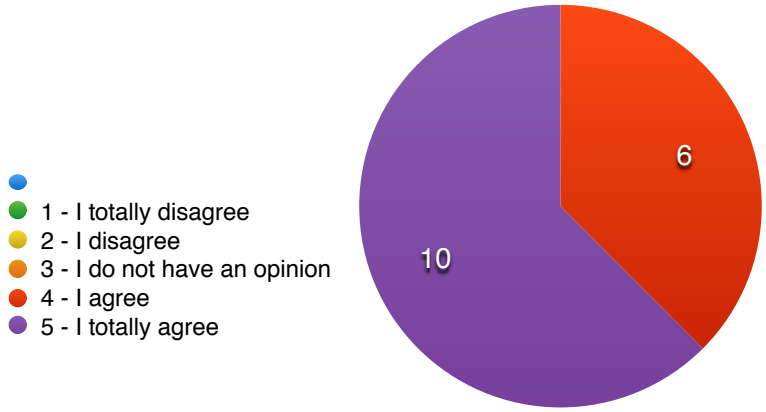
8. **I profited from the exchange with other participants from OTHER COUTRIES**



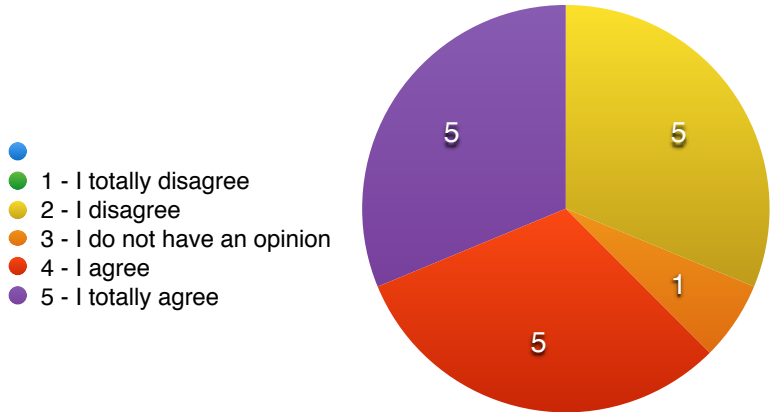
9. **The level of interaction met my expectations**



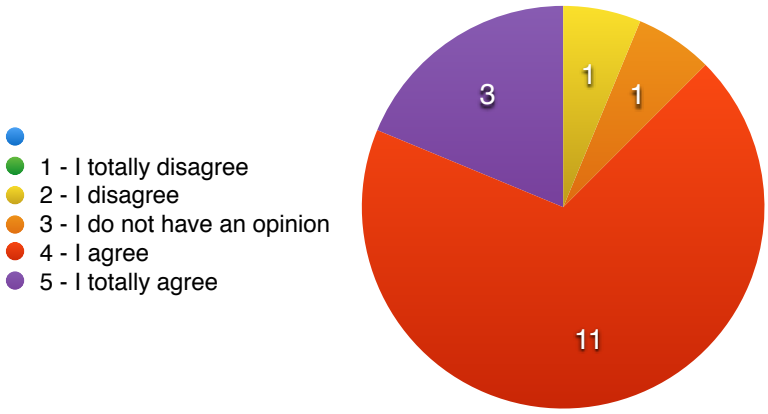
10. The e-learning course was relevant for my work



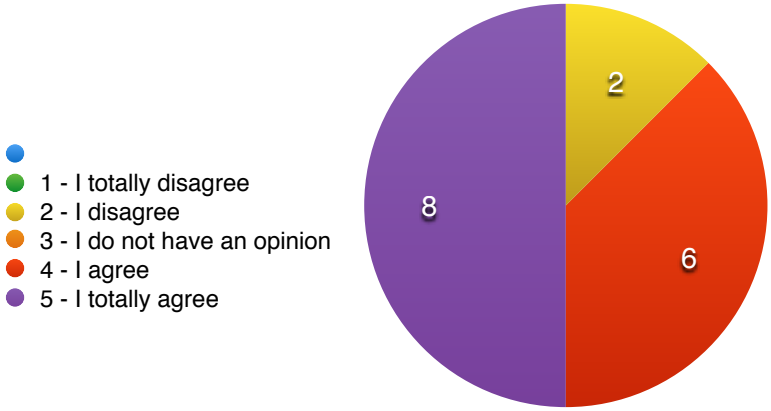
11. The time for reading the content was sufficient



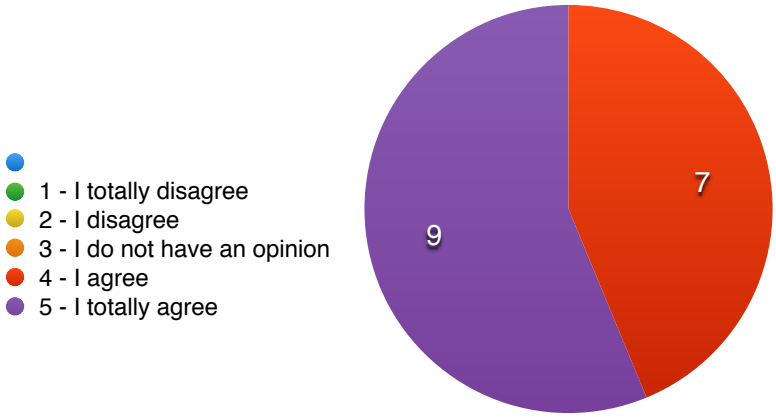
12. Multiple-Choice Test questions were clear and understandable



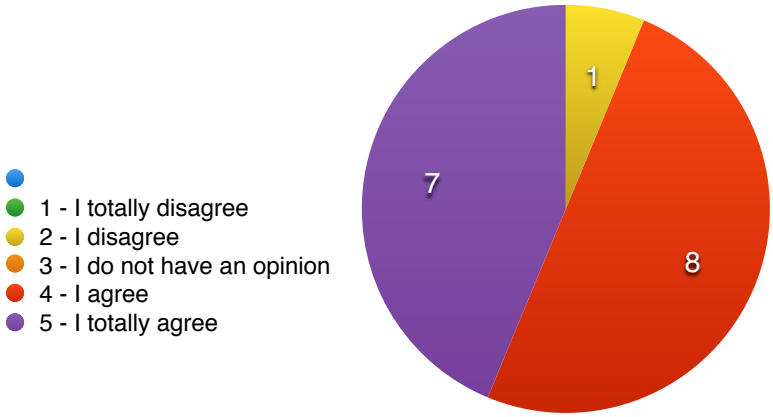
13. Quality of the handouts (material, manuals etc) was good



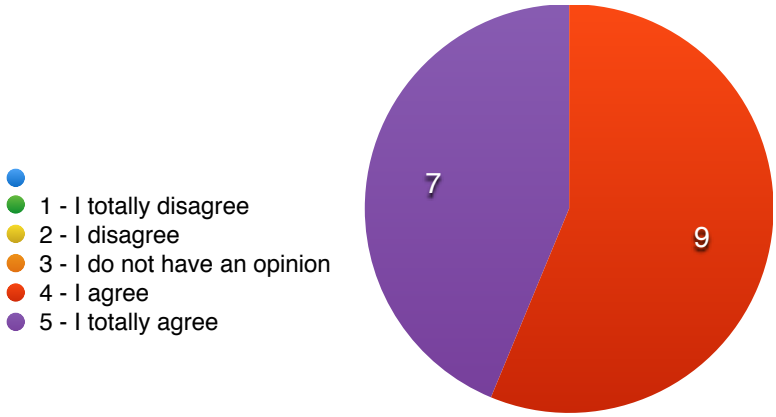
14. The topics suggested for the FaceBook discussion groups were appealing



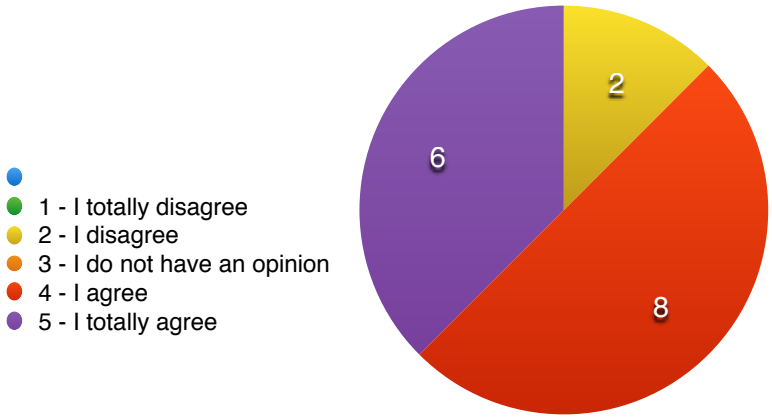
15. The content of the lessons met my knowledge level



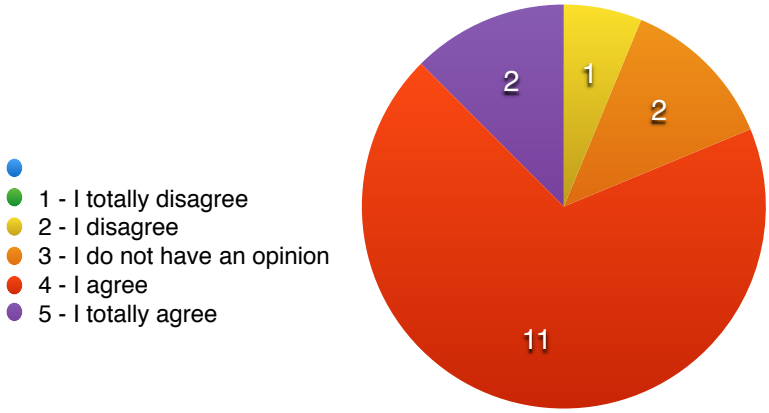
16. The Webinar lectures helped me to enhance my knowledge



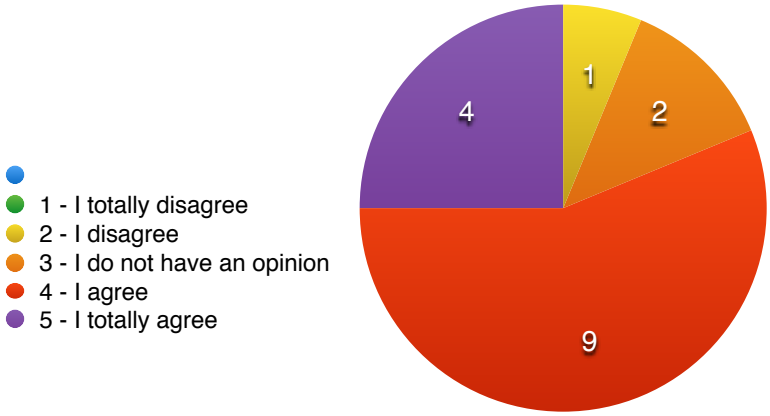
17. The FaceBook platform worked fine for me



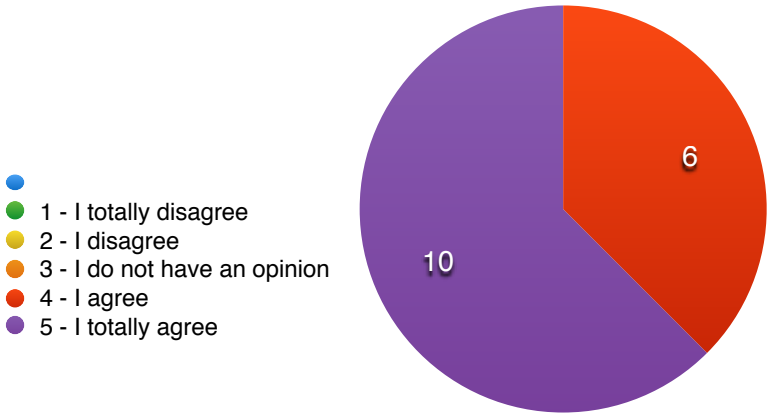
18. There was enough time for collaboration between participants and tutors



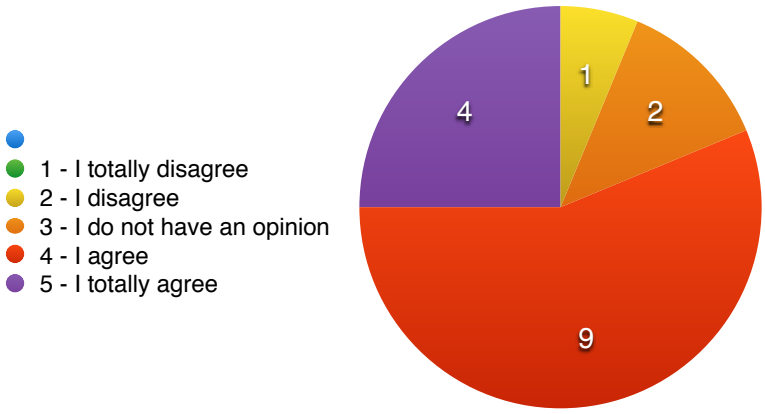
19. I found it easy to navigate though the course



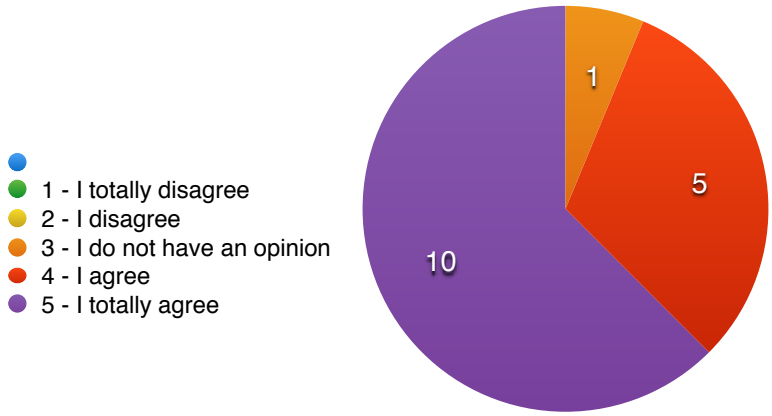
20. I am satisfied with the Webinar (GoToWebinar) as a tool



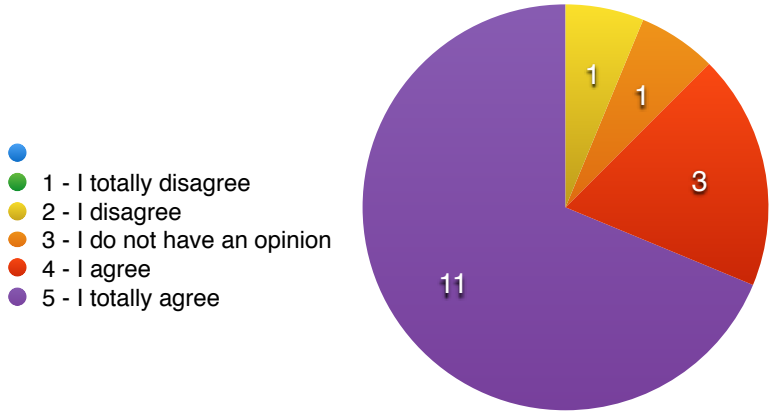
21. The Multiple Choice test was easy to handle

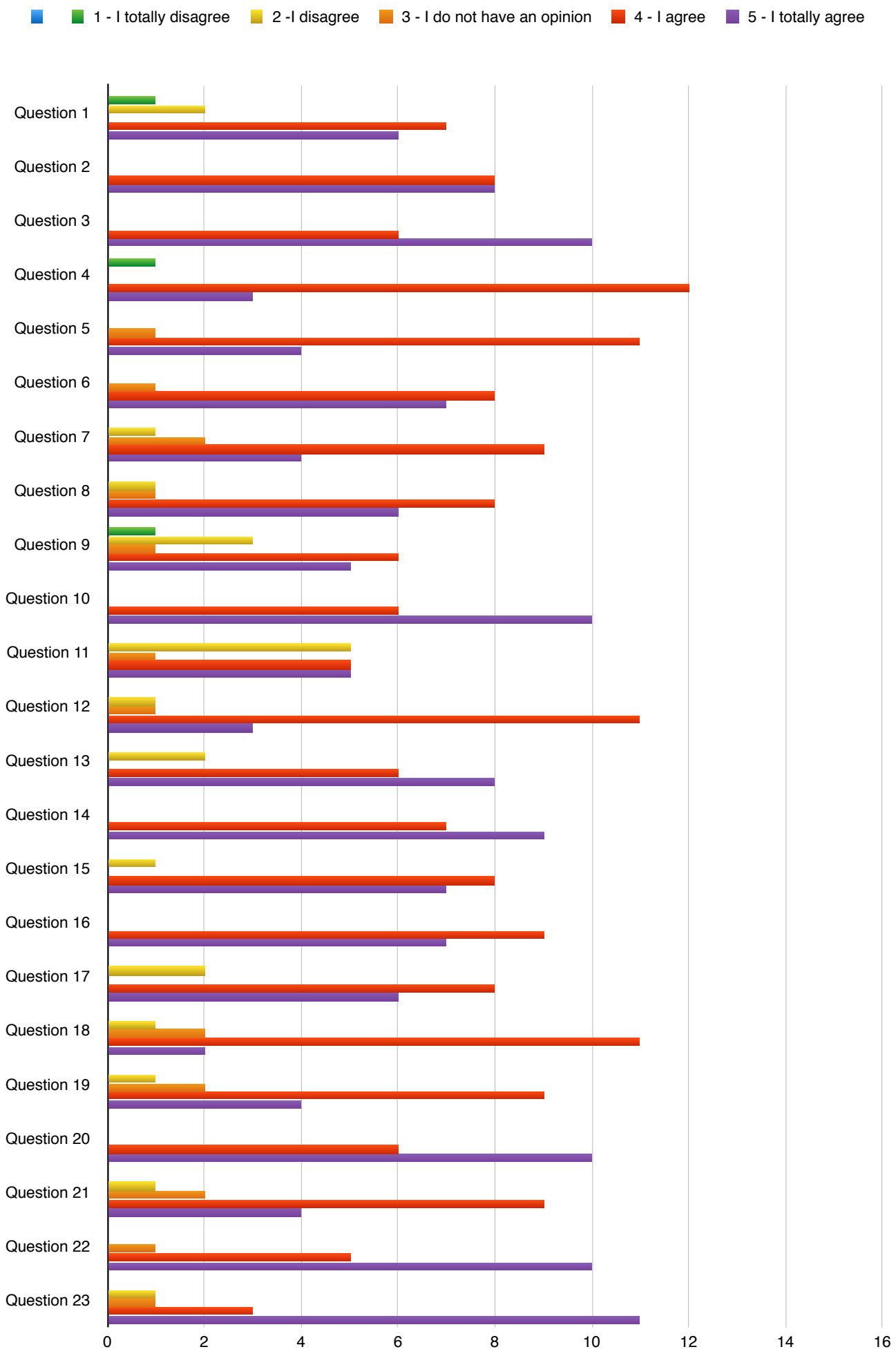


22. I am satisfied with the online course in general



23. I will recommend the course to my colleagues




1 - I totally disagree
2 -I disagree
3 - I do not have an opinion
4 - I agree
5 - I totally agree
Question 1
Question 2
Question 3
Question 4
Question 5
Question 6
Question 7
Question 8
Question 9
Question 10
Question 11
Question 12
Question 13
Question 14
Question 15
Question 16
Question 17
Question 18
Question 19
Question 20
Question 21
Question 22
Question 23
0
2
4
6
8
10
12
14
16