Project: TRAINENERGY

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Train the Trainers Report

(Deliverable 5.2)

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Table of contents

TABLE OF CONTENTS

1 Introduction

An evaluation of the training material took place in Biberach between the 19th and 30th July 2010. A total of 24 trainer-participants (see Appendix I), from partner countries, attended the sessions and the material developed by CIT was delivered by tutors based at the training facility in Biberach. The international advisory group (see Appendix II) met in Biberach, from the 19th to the 21st July and also attended some sessions. The evaluations, suggestions and recommendations of the trainer participants and the advisory group are the subject of this report. The trainers were asked to complete evaluation report sheets at the end of each module (Results section A below) and as a final task they completed a general evaluation form evaluating all the course content (D5.2) and covered in Results section C below.

2 Progress Outline

In the initial phase of evaluation modules numbered 1, 4, 5, 6, 7, 8, 9 and 10 were evaluated, over two days, and the results section A below details the findings and suggestions of the group. After this the group held a session which decided the required TE (TRAINENERGY) material and its evaluation needed a different procedure to that defined. Results or evidence of this session/meeting is included in Appendix III. In order to facilitate progress they broke out into 6 separate workshops and these smaller groups focused and discussed specific module content. The workshop results are discussed in Results section B below. When all the modules were completed the attendees completed a questionnaire which assessed their thoughts and the results of this are presented in Results section C. Finally the suggestions and recommendations of the advisory group are contained in the Results section D below. The results of these four activities A to D will be synthesized and formalized into 8 overall recommendations in section 3.5 at the end of this document.

3 Results

3.1 Results Section A – Initial Phase of Module Evaluation

Table A clearly shows trainer performance, per module, was ranked superior to other factors by attendees excepting module 8. The quality of content ranged in and around 'ok' as did the quality of the hand outs and module materials. Finally the technical instruments (beamer etc) ranked significantly below 'ok' in most cases.

Table A: Individual Module Evaluation

Module number	**1**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
N	6	14	11	15	8	14	15	14
Quality of content	3	3.2	3.6	2.9	3.6	2.9	2.8	3.1
Quality of material, handouts etc.	2.8	3	2.9	3	3	2.8	2.5	2.8
Quality of technical instruments	2.5	2.1	2.2	2.1	2.5	1.9	2.1	2.1
Trainers performance	2.8	3.8	3.8	3.8	3	1.9	3.6	3.6

N corresponds to the number of responses from attendees. A Likert type scale was included within the answer regime such that attendees ranked their satisfaction levels from 1 to 5; 1 being poor and 5 being excellent while 3 represented ok.

3.1.1 Specific Recommendations

In general comments included in the survey forms, referred to above, can be gathered into the following bullet points:

1. An introduction to the basic science of each trade would be beneficial especially that of plumbers and electricians.
2. The content is overly focused on theory and text ridden. More physical and practical examples of the material needs to be included at all levels. This should be more visual and tangible for the trainee and include pictures, videos and site visits, product catalogues etc.
3. Include best case and worst case scenarios.

4. Make the focus of the content broader and include a pan european perspective. This will give local, regional and country specific foci.
5. Rather than focusing on expert delivered material can some participatory sessions be included of which examples would be: role games, workshop style delivery, etc.
6. Expand the size of charts, graphs and diagrams within the content.
7. Include a glossary and contents page for training in general.

3.2 Results Section B – Workshop Module Results

All of the modules excepting those listed in Table A were treated using a workshop format. Groups of trainers discussed the content of the material, copied the module content into paper format and added their recommendations to these copies. Copies of these have been sent to CIT and TEA and will be useful in re-developing the material. Some of the requested adjustments of these workshops are listed below:

1. Develop module objectives and use these as targets for module content.
2. Some slides have been deemed unnecessary and deleted.
3. Numbered bullet points should use roman numerals.
4. Figures on certain slides needed expansion and simplification and not letters.
5. Add more illustrative examples of what text is describing.
6. Repositioning of slides.
7. Use less scientific language and therefore more general explanation.
8. Customise material for each country.
9. Include more practical and real world examples instead of or with text.
10. Splitting and reworking slides.
11. Module 12 and 16 have numerous specific suggested recommendations which have been circulated to CIT and TEA amongst others.

3.3 Results Section C – Overall Evaluation of Training Content

Eleven assessments were returned by the 24 trainer-participants. A Likert type scale was included within the answer regime such that attendees ranked their satisfaction levels from 1 to 5; 1 being poor and 5 being excellent while 3 represented ok. The table below shows average scores across N answers completed.

Table B: Overall Module Evaluation

Evaluation Question	Average score	N
Appropriateness of the material	2.4	10
Appropriateness of Komzet material	3.7	11
How do you think the various modules linked together	2.5	11
The printed material was	2.3	11
The technical equipment was	2.5	9

N corresponds to the number of responses from attendees. A Likert type scale was included within the answer regime such that attendees ranked their satisfaction levels from 1 to 5; 1 being poor and 5 being excellent while 3 represented ok.

Some 5 respondents felt the material did not provide a good basis for the development of TE while 3 affirmed it did. It is clear that those surveyed felt that the TE material developed needs further adaptation while the Komzet material was rated significantly better than ok. Work needs to be done on integrating the various modules and this could be helped initially by developing a skeletal contents page. The printed material and technical delivery equipment also needs improvement.

3.3.1 Specific Recommendations of C

Some specific comments within this phase were:

1. Cooling needs to be addressed within the material.
2. Material should be more visual/illustrative and less theoretical.
3. Repetition of slides needs to be reduced.
4. Modules linked together poorly and work needs to focus here.
5. To increase the delivery time beyond two weeks as much material has to be covered.
6. Clarify goals and objectives and in so doing ensure that content meets these targets.

3.4 Results Section D – Advisory Group

The advisory group spent 3 days, from the 19th to the 21st July, in Biberach in total. In which time they attended a meeting and commended the facilities and the quality of tutors in Biberach. The rich mix of nationalities and experience enabled diverse learning amongst their group. Their specific recommendations on how to improve the course material are listed below:

1. Develop a lesson plan enabling a harmonisation across all countries of material delivery and schedules.
2. Overall objectives of this project need to be more clearly defined
3. Establish a general framework to ensure interaction and progression between modules
4. The actual content must not be considered as a final product but as a resource to build courses suitable for different national target so the trainers will be able to build a module using the available content and perhaps other sources
5. Some modules provide good quality material with a lot of detail including graphics and figures whereas others need improvement
6. Insert more illustration of best and worst practices
7. Include theoretical and practical exercises and examples
8. Establish a multidisciplinary project at the end of the course for assessment as this might ensure an interface between the trades
9. Size of graphics and text needs to be suitable for adult students.

3.5 Overall Results and Comments

The actual developed content cannot be considered as a final product but forms a useful resource on which further improvements can be carried out. The final course must be suitable for different national situations.

It would have been desirable if the response rate to the surveys included herein was greater as the views of 5 to 10 attendees are not certain to be representative of the total 24 attendees. On the other hand a greater number of respondents were responsive in other cases reported above.

Feedback from the trainer participants who participated in the course indicated that they are unaware of the objectives of the Trainenergy (TE) Program and some felt their function was to evaluate the training material for its suitability for students as distinct from crafts people.

It is clear that the developed training content was comprehensive however there was no general framework to ensure a link between the modules and it was thought that the provision of the same would greatly improve the training delivery.

While some chapters provide good quality material with a lot of detail including graphics and figures others need to be reworked and considering that the student pool are crafts people it will be essential to include demonstration and practical sessions as well as theory.

The following points have been distilled from all of the above inputs and will be required in order to further develop the TE material for craftspeople:

1. Define lessons plans for each module (objectives, learning outcomes, etc)
2. Contents slide(s) enabling link up of modules.
3. Visual demonstration whether; pictures, video etc.
4. Description of best and worst practice.
5. Theoretical and practical calculations and exercises.

6. Multidisciplinary project or event at the end of the course for assessment.
7. More graphics and illustrations.
8. Include physical demonstration whether at the training venue or with site visits.

Appendix I
Contact list for trainer participants

Country	Participant	Profession	E-Mail
UK	Robert Brandrick	Joinery	rbrandrick@stephensoncoll.ac.uk
	Jon Markham	Plasterer	JMarkham@stephensoncoll.ac.uk
	Scott Cooper	Bricklayer	scooper@stephensoncoll.ac.uk
	Robert Hallam	Plumbing – Heating	rhallam@stephensoncoll.ac.uk
	Peter Armes	Electrical installation	parmes@stephensoncoll.ac.uk
IRL	Donal Lynch		
	Tom O'Sullivan	Auto CAD Technician	Tlosullivan@eircom.net
	Mark Keyes	Carpentry / Joinery	Mark.keyes@itb.ie
	Michael Noonan	Plumbing / Heating	Michael.noonan@itb.ie
	James Lawlor	Plumbing / Heating	Jim.lawlor@itb.ie
	Anthony Sexton	College Lecturer Plumbing	Anthony.sexton@hotmail.com
FR	Roger Tobagi	Training consultant	rogertobagi@yahoo.com
	Claude Alegre-Ariso	Teacher IT & Electricty	c.alegre@voila.fr
	Jean Hilaire	Electrical installation	ramong.hilaire@laposte.net
ES	Angel Salvador Almodovar	Electrical installation . teacher	formemsl@gmail.com
	Robert Crespo	Plumbing – Cooling	rcrespo239x@cv.gva.es
	Carlos Llorca	Plumbing – Heating - Air Cond.Teacher/Projects	cllorcaj@hotmail.com
	Ricardo Arnau	Joinery & Furniture teacher	riarju@yahoo.es
	Joan-Baptiste Niclos	Building, Manage-ment/Architectural Technician	jbniclos@gmail.com
DK	Finn Skrydstrup	Carpenter / Architectural In-genieur	fas@sde.dk
	Hjørleif Klein	Constructing Architect Joiner	79hklein@gmail.com
	Henning Fischer-Nielsen	Architect / building economist	hfn@creoarkitekter.dk
DE	Wolfgang Schafitel	Carpenter	schafitel@zaz-bc.de
	Daniel Lutz	Carpenter / civil engineer / teacher	daniellutz@gmx.de

Appendix II
Advisory Group Attendee List

TRAINENERGY

Train the Trainers – Advisory Group

19.07. – 21.07.2010

Date:

Name:	Signature:
José Manuel Esperante	
Michael Dawkins	
Robert Butler	
Prof. Alain Kokosowski	
Maria Manda	
Simonetta Bettiol	

Signature: Date: 20.07.2010

Appendix III