iDEA | Educational Program definition

IDEA 2017-1-CY01-KA204-026725   IO2.A2

Document Info

Deliverable Number	IO2.A2
Deliverable Title	Educational program definition
Intellectual Output Title	
Activity description	The Document will elaborate the specific areas, topics and ICT tools selected. It will summarize the needs for specific tools in each of the project countries. It will define which country-specific tools are to be developed and which tools are to be developed in all the project countries and the educational outcomes of each of the tools.
	<Energy agency of Plovdiv>
Authors organization/partner	
Status (D: draft; RD: revised draft; F: final)	<Draft>
Date (versioning)	<May 2018> (<Version>)

Document History

Authors	Reviewer	Date	File suffix [Version.Revision]	Approval
Energy Agency of Plovdiv	<Partner>	<31.05.2018>	<Version 1>	<Yes/No>
	UCY	21.06.2018	1.1	Yes

Executive Summary:

The main aims of this document are to elaborate the specific areas and to define the content of the three thematic chapters; to summarize the needs for the specific tools, based on the outcomes of O1. The document will present the selected tools that are to be developed and will define the educational outcomes of each of the tools.

Contents

Introduction

This document is part of the implementation of Intellectual output 2 and it is based on the results of the Learning activity (C1).

The main objective of IO 2 Educational program and best practice are to define the educational program outline that will respond to the training needs identified in O1 and to serve as input for the development of energy poverty curriculum (O3) with the overall aim of contributing to the improvement of practices for the education about energy poverty. Then O2 has objective to run a learning activity in order to share knowledge, expertise and examples of best practice on energy poverty between partner organizations, which will also strengthen preparations for O3.

About the project

IDEA (Innovative Direction in Energy Advising) project's purpose is to develop innovations in education about energy poverty. Main objective is to improve existing and develop new innovative educational methods and materials for adult training on energy poverty. The partnership consists of experienced organizations strategically places in the most affected region regarding energy poverty - in Bulgaria, Croatia, Slovenia and Cyprus. Project is implemented by University of Cyprus, DOOR Society for Sustainable Development Design, Energy Agency Plovdiv and Focus Association for Sustainable Development. It is funded by Erasmus+ programme.

1. Analysis of the needs for specific tools – summary of O1 outcomes

Analysis of the training needs were performed in O1 with the main objective to collect information about current understanding and involvement in the area of energy poverty. A questionnaire was circulated among identified stakeholders by each partner. Then 4 country specific and one overall report were produced.

A summary of the four country specific reports and the results related to the selection of the tools are presented below:

Bulgaria:

The most suitable tools for respondents' involvement in energy poverty**: Database on energy poverty in households** and **Workshops and Online platform**
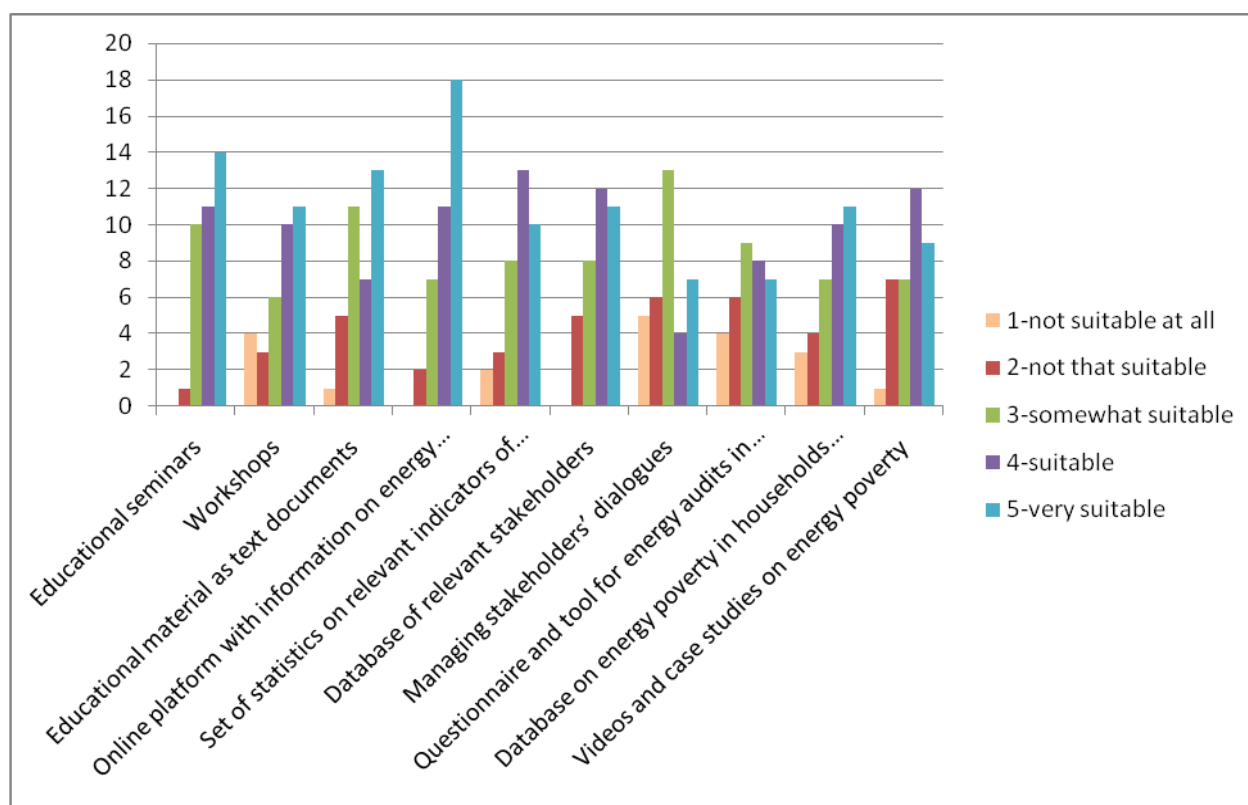
Options:	1	2	3	4	5	Average
Educational seminars		4	9	10		3,26
Workshops		2	9	15		3,50
Educational material as text documents		4	12	15		3,35
Online platform with information on energy poverty (measures, relevant actors,..)		2	4	9		3,47
Set of statistics on relevant indicators of energy poverty		4	4	6		3,14
Database of relevant stakeholders		2	9	12		3,43
Questionnaire and tool for energy audits in households		3	8	13		3,42
Database on energy poverty in households (on country/regional level)			6	9		3,60
Video		2	8	9		3,37

Croatia - The best evaluated tools were Online platform, set of relevant statistics and database on energy poverty in households.

No.	Tools	Suitability of the tool (from *1-not suitable at all* to *5-very suitable*)
1	Educational seminars	3.80
2	Workshops	3.73
3	Educational material as text documents	3.90
4	Online platform with information on energy poverty (measures, relevant actors, ...)	4.23
5	Set of statistics on relevant indicators of energy poverty	4.00
6	Managing stakeholders' dialogues	3.54
7	Questionnaire and tool for energy audits in households	3.83
8	Database on energy poverty in households (on country/regional level)	3.97
9	Videos and case studies on energy poverty	3.24

Cyprus:

The best evaluated tools were **Online platform** and **Educational seminars**

Slovenia:

When it comes to suitability of tools for respondents' involvement in energy poverty, in case of gaining more knowledge or external support, they have stated that the most suitable tool or format would be 'an **Online platform with information on energy poverty** (measures, relevant actors,...)'. Second best was '**Database on energy poverty in households** (on country/regional level)', and third 'workshops' and 'educational material as text documents'. Out of all options, respondents have

stated that 'videos and case studies on energy poverty' are a less suitable option. Detailed results are shown in Table 4.3.

No.	Tools	Suitability of the tool (from 1-not suitable at all to 5-very suitable)
1	Online platform with information on energy poverty (measures, relevant actors,...)	4.31
2	Database on energy poverty in households (on country/regional level)	4.06
3	Workshops	3.97
4	Educational material as text documents	3.97
5	Educational seminars	3.92
6	Set of statistics on relevant indicators of energy poverty	3.81
7	Database of relevant stakeholders	3.74
8	Managing stakeholders' dialogues	3.69
9	Questionnaire and tool for energy audits in households	3.64
10	Videos and case studies on energy poverty	3.63

The overall report, combining the 4 country-specific reports, shows that when it comes to suitability of tools for respondents' involvement in energy poverty, in case of gaining more knowledge or external support, the stakeholders have stated that the most suitable tool or format would be an **'Online platform with information on energy poverty (measures, relevant actors,...)'**. Second best was **'Database on energy poverty in households (on country/regional level)'**, and third **'Educational seminars'**.

Detailed results are shown in the following table:

No.	Tools	BG	HR	CY	SI	All
1	Online platform with information on energy poverty (measures, relevant actors,...)	3.47	4.23	4.15	4.31	4.04
2	Database on energy poverty in households (on country/regional level)	3.60	3.97	3.63	4.06	3.82
3	Educational seminars	3.26	3.80	4.06	3.92	3.77
4	Educational material as text documents	3.35	3.90	3.70	3.97	3.73
5	Workshops	3.50	3.73	3.66	3.97	3.72
6	Set of statistics on relevant indicators of energy poverty	3.14	4.00	3.72	3.81	3.67
7	Database of relevant stakeholders	3.43	/	3.81	3.74	3.66
8	Questionnaire and tool for energy audits in households	3.42	3.83	3.24	3.64	3.53
9	Videos and case studies on energy poverty	3.37	3.24	3.58	3.63	3.46
10	Managing stakeholders' dialogues	/	3.54	3.06	3.69	3.43

As most appropriate approaches and tools for education about energy poverty and measures for alleviating energy poverty, respondents have selected 'Practical activities', followed by 'Applications', 'Web based tools', and 'Lectures'. 'Textbooks' and 'Games' were selected as somehow appropriate tools, and 'Role playing' was seen as least appropriate tool on the list. Details can be found in Table 5.4.

No.	Appropriateness of approaches and tools for education about energy poverty and measures for alleviating energy poverty	BG	HR	CY	SI	All
1	Practical activities	4.76	4.55	4.18	4.37	4.47
2	Applications	3.63	3.70	4.16	3.76	3.81
3	Web based tools	3.88	3.55	3.91	3.71	3.76
4	Lectures	3.19	4.00	3.63	3.66	3.62
5	Textbooks	2.87	3.78	3.59	3.11	3.34
6	Games	3.00	3.03	3.35	3.37	3.19
7	Role playing	2.83	2.52	2.97	2.71	2.76

As most important topic for education about energy poverty and measures for alleviating energy poverty, respondents have selected 'Energy use of domestic devices and appliances', followed by **'Practical training'** and **'Detecting energy poverty'**. Details with listed all 13 topics for education about energy poverty and their accompanied grades are shown in the following table:

No.	Topics for education about energy poverty and measures for alleviating energy poverty	BG	HR	CY	SI	All
1	Energy use of domestic devices and appliances	3.75	4.68	4.42	4.32	4.29
2	Practical training (how to implement energy advising in households, measuring energy and water use, replacement of devices in household, identification of key problems in household)	3.60	4.32	4.33	4.39	4.16
3	Detecting energy poverty (definition, indicators, causes, solutions)	3.50	4.42	4.30	4.39	4.15
4	Soft and infrastructural measures and devices for reducing energy and water consumption	3.59	4.66	4.09	4.11	4.11
5	Social security aspect and related services (to be able to identify problem and give advice to household)	3.74	4.27	3.71	4.26	4.00
6	Heat Energy, Electric Energy and Water	3.55	4.29	4.24	3.89	3.99
7	Information about energy and social actors and schemes that can help energy poor household	3.62	4.16	3.94	4.13	3.96
8	Renewable energy sources	3.61	4.03	4.29	3.74	3.92
9	Basics about energy and energy needs	3.47	3.94	4.25	3.79	3.86
10	Methodology of energy advising in households (process of implementation of energy advising, how to use questionnaire and software tool, saving devices)	3.55	4.00	3.79	3.92	3.82
11	Communication training (communicating with costumers, households members and other stakeholders)	3.52	3.97	3.89	3.79	3.79
12	Climate change and other environmental impacts of energy use	3.54	3.94	3.95	3.45	3.72
13	Entrepreneurship (job application, how to start your own business initiative, marketing, etc.)	3.16	3.60	3.40	3.16	3.33

2. Tools selection

Based on the results from O1 and the discussions during the LTT, partners agreed on the development of the following tools:

- **Energy Advising Tool for Energy Poor Households (Restricted access):**

  A tool that energy advisors will use to record the collected and assessed data about energy and water consumption and habits in households. It will be able to calculate potential and possible savings. It will consist of constant numerical factors pre-saved to be used in calculations, and average numbers too e.g. water consumption – different for each country. It will provide individual energy reports for households. The tool will be with restricted access to citizens, only energy advisors will have access to use it.

- **Open Access Toolbox:**

  It will present a Toolbox, including 5 energy tools for assessing energy consumption in households. The tool will be open to any individuals to use (online). It will help the households to calculate easily their energy and water consumption and will assess the energy savings. Toolbox components are the following different tools:

  - Electricity tool

- Cooling tool
- Heating tool
- Lighting tool
- Water tool

- **Energy and Water Saving Tips for Households**

  This tool will represent a package with energy saving tips. It will provide tips on energy efficiency and energy behaviour change. The tool will be open for any individual to use online and will be downloadable as well.

- **Educational e-manual tool:**

  A downloadable document, which will consist of an educational programme to educate advisors on how to tackle energy poverty. It will include the following main sections: Energy poverty; Energy efficiency; Social issues; Entrepreneurship possibilities; Communication skills.

- **National Contacts Tool**

  A tool that will provide a catalogue of organisations, stakeholders or other people that can help persons facing energy poverty, considering the country and area of interest.
  It will also provide information about financial mechanisms for increasing energy efficiency and social support.

- **The Webinars tool:**

  The webinars will be directed at stakeholders (energy poverty and energy efficiency actors, adult education). The objective is to present the ICT tools for energy poverty and to influence text-based discussion (Q&A). Webinars will be country based with 30 min duration max.

- **Video Tutorial Tool:**

  Video tutorials about the ICT tools will be produced. They will be like animated demonstrations describing how to use the tools.

- **The "video for dissemination" tool**

  It will represents the project, the partners and the Educational program that will be created. It will provide an overview of the different themes, communication materials and digital media. The video will be posted online with subtitles in all partners languages

- **Educational Games Tool:**

  Interactive online games with educational purpose will be produced. They will be related to education on energy poverty and energy efficiency issues. The educational game tools will be in different formats, for example: Quizzes, timed question games, crosswords, etc.

- **Role-Play Game Tool (Optional):**

A 3D game will be established with different scenarios, focused on how the advisors can better react to various social situations, how to deal with potential conflict in the household they visit and how to apply their energy saving knowledge in the household setting. They will use an avatar to move in the virtual space. Energy advisors will use this game for their education.

3. Definition of selected tools

The following table summarises the selected tools and defines which will be the target group of the tools, if the tool is country specific or it will be for all project countries, what will be the educational outcomes and who is the project partner responsible for validation of the tool and will need to support its development process.

No.	ICT tool	Target group?	Country specific/ for all project countries	Educational outcomes	Validation partner
1	**Energy Advising Tool for Energy Poor Households (Restricted Access - only for experts)**	Energy advisors	For all project countries/ Partly Country specific	The users will be able to monitor and analyze the energy performance of the household and to assess the potential for energy savings.	FOCUS
2	**Open Access Toolbox**	Individuals		The users will be able to monitor and analyze the energy performance of the household and to assess the potential for energy savings.	FOCUS
2.1.	**Electricity**	All		It will help the user to calculate the electricity consumption in the household, to monitor and analyze the monthly electricity performance of the domestic appliances	
2.2.	**Water**	All		It will help the user to calculate, monitor and analyze the water consumption in the household,	
2.3.	**Heating**	All		It will help the user to calculate the heating energy consumption in the household, to monitor and analyze the monthly performance of the heating appliances and/or systems	

2.4.	**Cooling**	All		It will help the user to calculate the cooling energy consumption in the household, to monitor and analyze the monthly performance of the cooling appliances and/ or systems	
2.5.	**Lighting**	All		It will help the user to calculate the lighting energy consumption in the household, to monitor and analyze the monthly performance of the lighting appliances	
3	**"Energy Saving Tips for Households" tool**	All	For all project countries	It will provide tips on energy efficiency and energy behavior change. The tips will be related to electricity, heating and water usage. It will be available for download by individuals.	EAP
4	**Educational "e-manual" tool**	All	For all project countries	A document that will consist of an educational programme to educate advisors on how to tackle energy poverty. It will include the following main sections: Energy poverty; Energy efficiency; Social issues; Entrepreneurship possibilities; Communication skills	EAP
5	**"National contacts" tool**	All	Country Specific	Database with information about services, stakeholders and actors, that can help energy poor households. Users will be able to find help regarding social issues and energy issues, as well as info on various financial mechanisms.	FOCUS
6	**"Video webinars" tool**	All	Country Specific	The webinars will be directed to all the stakeholders. The objective is to present the ICT tools for energy poverty and to influence text-based discussion and Q&A section	DOOR
7	**"Video tutorials" tool**	All	For all project countries	They will be like animated demonstrations describing how to use the tools.	DOOR

8	**Video for dissemination" tool**	All	Country Specific	It will represents the project, the partners and the Educational program that will be created. It will provide an overview of the different themes, communication materials and digital media. The video will be posted online with subtitles in all partners languages	DOOR
9	**Educational Games Tool**	All	For all project countries	They will be related to education on energy poverty and energy efficiency issues. The educational game tools will be in different formats, for example: Quizzes, timed question games, crosswords, etc.	UCY
10	**The "role-play games" tool(s) (OPTIONAL)**	All	For all project countries	It will include different scenarios, focused on how the advisors can better react to various social situations, how to deal with potential conflict in the household they visit and how to apply their energy saving knowledge in the household setting. They will use an avatar to move in the virtual space. Energy advisors will use this game for their education.	UCY