useITsmartly

IT-Peer Education Guidelines

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Name of the town, 2016

www.useitsmartly.com

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Press photo from HLW Leoben (© HLW Leoben)

Introduction

Today our living environments are shaped by digital communication tools that have modified the basic principles of communication, knowledge acquisition, and playing. Against this background the energy consumption related to the use of information and communication technology (ICT) is increasing rapidly. Computers, mobile phones, routers, TV sets, game consoles etc. represent one quarter of the European residential electricity consumption today. This makes it important to sensitize others of the energy consumption of ICT in order to mitigate climate change and environmental problems.

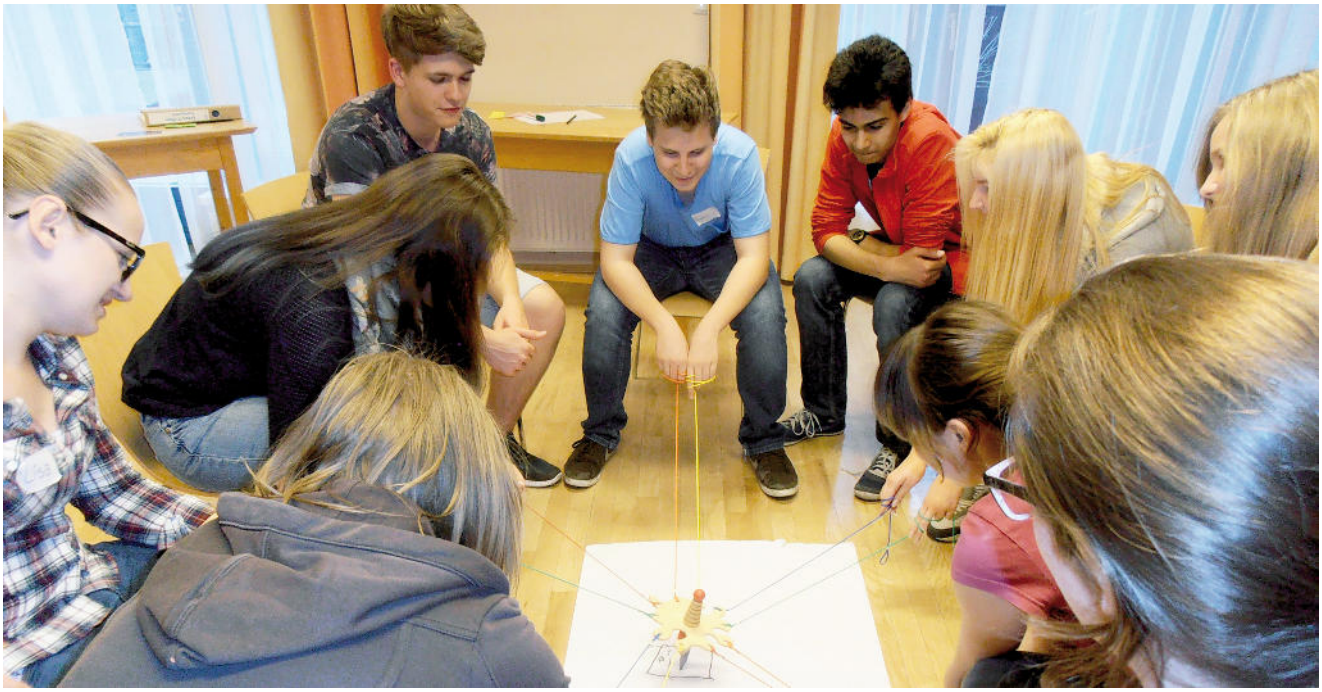
"It has made me more aware of my electricity consumption. [...] It seems confrontational, when you suddenly get some concrete numbers on one's consumption and pollution, which I believe can help to reduce power consumption."

Danish vehicle workshop participant

For young people IT use is an important part of their everyday life but for the majority of them the awareness of environmental impacts of IT use and knowledge about how to save energy while using devices is still missing. The invisibility of the seemingly immaterial, virtual services and goods and their effects on energy demand and environment are a challenging field of action. With the EU-project "useITsmartly" we wanted to close this gap by developing innovative solutions to facilitate young people's capacity building of smart IT use and ideas how to reach them with this topic. This brochure comprises the methods and tools that have been pre-tested in this project and evaluated by more than 300 young Europeans. We want to address teachers, NGOs, multipliers, young people who want to do something in the field or any person who is interested in making a change in issues afflicting the environment. Every step of the project was monitored and evaluated and especially the feedback of the young people was integrated into this manual. This refers to the content and how interesting it was, to the intelligibility, and also to the fun factor of games and materials. This brochure will at first explain the principles of peer education and give an overview of the underlying didactical approach and the organization of peer trainings. Then it will explain the units of the peer training and their applicability and how to do multiplicatory work. A selection of the most successful games, worksheets and information are available on our project homepage. All sections contain infoboxes on IT use and energy consumption that may help to clarify the topics addressed and that will supply you with data and facts on ICT related energy use considering the whole life-cycle of IT from the amount of energy used in the fabrication, distribution, actual use, and disposal. Further, in the interviewboxes several persons who were involved in the project add their view on the project or certain aspects of it. The different "lessons learned" quotes summarize in short what worked well and what did not during the realization of the IT-Peer trainings. On our homepage you find the materials that you need to either do a IT-peer training yourself or to choose from in order to make it suitable to your individual situation, no matter whether you want to do a series of lessons on pollution and climate change or a one-day-workshop. Thus, this "best-of" the trainings as well as the valuable experience and information on how to recruit people, organize and conduct a IT-Peer training may help you in adjusting the material to your specific group settings and needs. We hope that you find the training as fun and rewarding as we did!

Most importantly, 331 IT-peers were trained and 39.716 persons were reached directly or indirectly by IT-peer activities. The project partnered up with 240 schools and thereby worked with and informed 408 teachers.

Outcomes of useITsmartly



Teambuilding, IT-peer training Austria (© UBZ)

About Peer Education

The current state of youth research shows that more and more young people live with the impression of having hardly any influence on political decisions. On the one hand they feel a kind of helplessness, on the other hand they point out that only under special circumstances they would be ready to take on responsibility. Youth's preconditions for participation in projects are:

- to be taken seriously
- to have a say on what and how activities carried out
- to share experiences
- to have fun in the project

In order to strengthen youth involvement in all programs peer-education is a very effective approach.

What is Peer Education?

Peer education is a popular educational strategy and is based on several behavioral theories such as *Social Learning Theory* (Bandura, 1977)[1], the *Theory of Participatory Education* (Freire, 1970)[2], *Diffusion of Innovation Theory* (Rogers, 1983)[3]. Originally it was used in the health sector in the US and nowadays becomes more and more important in European countries as a very productive educational method in the field of sustainability. The idea behind the strategy of peer education is that well trained (young) people (peer educators) are in the best position to share their knowledge, attitudes, beliefs or behaviors on various topics such as public health or ecology among their peers. In short: It is a dialogue between equals. Equals can be people who share certain characteristics such as age, gender, neighbourhood, income, race and ethnic group, culture, ideals, etc.

Learning by doing, hands on activities are very much appreciated by the students and result in stronger engagement.

Lessons learned, Germany

Why Peer Education?

Peer education is viewed as an effective behavioral change strategy. It works well, because it is participatory and involves young people in discussions and activities. It can empower them to become active. In peer trainings they learn more "by doing" than just by getting informed. The high social closeness and common language among peers form best conditions to initiate truthful and credible social learning processes and can further influence attitudes and behavior. (Appel, Kleiber, 1998)[4]. Mainstraim educational institutions often cannot supply the unique and individual support and service which is needed for behavioral change.

DO YOU KNOW, THAT

For their server farms Google needs as much energy daily as a town with 300.000 inhabitants.

Every day 2 billion people worldwide use the internet. Increasing dramatically!

The internet is already responsible for more CO_2 emissions than the airline industry.

In the best case peer training has the potential to engage young people and offer a non-judgmental, understanding and supportive atmosphere amongst like-minded peers. It can empower them to cope with environmental problems like climate change by developing strategies and skills to take action themselves and motivate others to become active, too.

> *"Adolescents who were counseled by peers were more likely to engage in interactive discussion following the education curriculum than those counseled by adult[s]."*[5]

Benefits of Peer-Education

Research shows that habits are formed in early childhood. Therefore, certain attitudes (such as indifference towards environmental issues) should be prevented as early as possible and be carried out from those, who are widely accepted as equals. Young people listen to young people, they are a more credible source of information for some youths than are adult educators. Equals discuss, support, and inform other peers in the best way, because they communicate in an understandable way. Peer education can empower those who take part in it and provide further impulses for personal development. It might help in developing self-confidence and common life skills through the experience of peer and multiplication work. A peer training can support in clarifying values and help to make decisions. It may enhance the probability to act according to the newly acquired values. The peer trainers might be recognized as leaders by their peers and might enjoy the role of having a direct involvement and a voice.

Target groups

Young People (age 16 to 20 years)
The main target group of useIT smartly were young people in their role as IT-users and future decision makers. They became actively involved in the project as some of them were trained to be IT-peer educators who further educated their peers to multiplicate the information and options for change they had obtained in the trainings.

> *"Young people often find peer educators more credible than adult educators!"*
> IT-peer educator, Austria

Schools
Different types of schools provided the major settings for the IT-peer education and whole classes participated in the trainings. Schools were also approached in their role as public procurers of IT-related skills in computer classes.

NGOs and Youth Organisations
Non-formal (environmental) institutions and activist groups can form reliant partners in the implementation of IT-peer trainings due to their intrinsic motivation. In this project two workshops were carried out with young people from NGOs.

Cosima Pilz,
IT-Peer Trainer,
Austria

Interview

What do you think is the special feature of peer-education?
According to my long-term experience in environmental education the peer work is a very good approach for motivating young people to get active for a environmentally friendly, healthy and social world.
Tell us three words that spontaneously comes into your mind when thinking on the project.
Innovative, challenging, active.
Do you think that peer-education can lead to energy saving behavior?
I believe that under certain circumstances it is possible that peer education can lead to a behavior change. Therefore peer education should be more recognized as a very effective educational approach for capacity building, which additionally can induce a high multiplication effect.

Lifecyle of a computer, IT-peer training Austria (© UBZ)

Peer work at HAK Fürstefeld (© Sarah Habersack, Alexandra Kaltenböck)

Organisation of IT-Peer Trainings

When starting to organise IT-peer trainings the following questions should be considered beforehand:

- Who will be the target group?
- What are my objectives?
- What do the participants need and what will be content of the training?
- Where and when will the training take place?
- What methods will be used?

Preparation work

Recruitment of schools and future peer educators form the first step in conducting IT-peer trainings and can be crucial for the success of the peer work. Before starting to contact schools the following points should be clarified and prepared:

- Identify recruitment sources (e.g. schools, partner organisations, project participants, NGOs in the field of education, sustainability, environmental protection, youth organizations with good contacts to young people).
- Create a clear strategy for where and how to reach potential peer educators. Decide how many peer educators you need and don´t forget to consider your own resources.

Collaborating with partners with long term experience in environmental education and working with schools helps in assessing what works and what doesn´t.

Recommendation, Austria

- Design a clear, well-defined, active and youth-adequate program for the IT- peer training so that headmasters and teachers as well as students have a clear idea about the outcomes of the training and the future work of the peer educators and give a clear task-description for the work of IT-peers.
- Develop appealing recruitment material and don´t forget to provide contact details such as telephone number or e-mail address as well as the correct logos (you find an example of our material on the project homepage)
- Don´t forget to consider benefits for the participants such as proper support, incentives (e.g. thesis, certification, awards, positive reinforcement, public recognition) in order to keep them involved.
- Tailoring the content to the time available makes sense (e.g. zoom in one sub-theme rather than trying to cover the full range of topics).

DO YOU KNOW, THAT

For small devices like smart phones and tablets the major environmental impact is related to production and disposal of the devices, not their use. Keeping your devices for longer before replacing them is therefore an effective way of saving resources and the environment.

- Explanatory videos and animations are often highly appreciated by the students.
- If possible, involve relevant stakeholders in order to ensure local community support.
- Try to include the focus on peer work and multiplication in each session (e.g. discussion on how the topic could be communicated to others).
- Be aware of gender and diversity issues and make sure that the program as well as the peer education itself is equitable and inclusive for everyone.
- Be ready to change the program you designed according to the particular context and requests of the participating school or persons (e.g. if the training is part of school lessons the teacher may want to participate in training the students, or a different group-size, age group, or time-slot offered may be different than expected).

Recruitment of Schools

When finally starting the recruitment process take care to:

- Contact appropriate schools – begin with school networks, which have sustainability, technology or environment protection in their school guidelines.
- If you can, begin with contacting schools that you are already familiar with or ask people who have contacts, to introduce you and your training to schools, you might have to use personal contacts, that often works best.
- It can be useful to find out which school types are likely to have room and interest in a training offered by an external person.
- Usually just sending an e-mail to schools is not enough in order to get young people to participate in the IT-peer training. Ask headmasters and teachers for a meeting so that you can present your program in person.
- If the program doesn´t fit the framework of a school ask your contacts what can be changed rather than omitting the complete endeavour. Nevertheless, be careful that the frame conditions for an IT-peer training can be sustained!
- In some cases the only way to recruit schools will be to have whole school classes participating in IT-peer trainings. Consider this as a big challenge, since not all students will be willing to actively take part or become peer educators themselves if forced through the school context. This needs special attention when designing the IT-peer program. Reflect which content and educational approach may be most appealing to all students.
- It is essential that the school properly informs the students about the upcoming training via their channels.
- Communication and expectation management before and throughout the training is of key importance so that the students know what is expected from them and why.
- If you carry out a training at an external venue: make the rules for reimbursing the peer educator's expenses transparent. Transportation allowance and meals should be regarded as a basic support.

Time is needed to talk to school teachers to explain, enthuse and to see how to fit the IT-peer training into the school program.

Lessons learned, The Netherlands

Lisbet Stryhn Rasmussen, Energy Advisor, Denmark

Interview

Are young people interested in energy consumption?

Yes! The climate impact of video streaming and that 40 % of their electricity consumption is related to ICT surprise them in particular. They would like to do something about it, but it should not be too difficult.

Tell us one thing that young people can do?

To my experience, especially boys fancy technical solutions to avoid standby, such as remote-controlled or auto power-off sockets.

Do you think that knowledge about energy consumption leads to energy saving?

Knowledge doesn't do the trick alone. Information can change purchasing behavior – as we have seen with white goods, for instance. But the politicians also need to take action.

Recruitment of Students

A high intrinsic motivation and willingness to dedicate adequate time to the training and multiplication process, previous experience and knowledge, and relevant personal traits such as motivation or commitment will absolutely be helpful in finding participants for your training. But be prepared to do some persuading work in order to find participants. Establishing an incentive

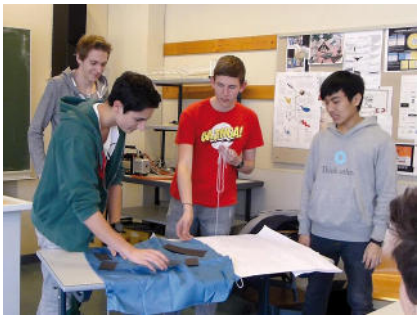
system might be necessary. Apart from motivational issues it is also nice to appreciate the peer's work in general, so make sure that at least some incentives or rewards are provided. Ensure that the incentive system is fair and transparent. A variety of things can be a motivator:

- having direct involvement and sharing ideas with others
- commit to a responsible energy saving IT-use
- the chance to learn skills and competences, which could be crucial for future jobs
- getting a certificate for their curriculum vitae (if possible from top-ranking officers or politicians)
- earning points for their studies
- getting a grade by their schools

Award Ceremony, IT-Peer Training Austria (© UBZ)

Example:
In the useITsmartly trainings the young people received a certificate, which identified them as "Green IT-Peers". On the certificate, personal data, school, time extent of the training and their own practical work as a multiplier/peer were stated. This certificate can be used as an additional qualification for their own career (see project homepage).

Task description of IT-Peer-Educators
The mission of the IT-peer training is to empower young people to act as multipliers in their schools and other social contexts for spreading information and knowledge on smart IT-use and energy saving potentials.



IT-peer educators contribute to this mission by providing information and knowledge about smart and energy efficient IT-use to other students by using different approaches and methods (examples of these materials you find in the chapter "Peer Work and Multiplication"). Let the IT-peer educators choose which way of distribution suits them best. Sometimes students are hesitant to speak in front of large groups and therefore prefer methods like poster campaigns or facebook groups in order to inform others about the topic. It is nice if you can encourage the young people to try a method which at first they were reluctant to choose but take care not to be too pushy and not overburden them. If the group is new to you it might be valuable to have an exchange with a teacher/group supervisor about what you can demand from the group or in a participatory manner to engage the students in an exchange about this. Let the educators participate in developing innovative and target-group oriented teaching material, at times you may be surprised by the good ideas and innovative solutions that they come up with. If you want to pursue a peer education process with lasting effects then it is valuable if you can motivate the young people to:

- attend and actively participate in training sessions of approximately 18–25 hours. This will ensure that they receive profound information and a variety of materials to choose from.
- keep a portfolio
- develop their own creative information and teaching material, which can be used by themselves
- communicate the time span, workload and task description to the candidates as early as possible in the process in order to avoid ambiguity.

Recruiting participants with particular interest and competence was very helpful (e.g. media and communication students).
Lessons learned, Norway

Qualities, which can be helpful for IT-Peer Educators

- interest in green IT/environmental issues
- willingness to work autonomously, but also in groups
- basic ability to reflect and monitor the own work and the multiplication process
- readiness to approach and speak in front of other peers
- the ability to act under supervision as a facilitator and multiplier on his/her own

Qualifications of IT-Peer trainers

70 % of the results of a learning process depend on the teaching qualities of the trainer. Therefore choose IT-peer trainers, moderators or facilitators carefully. This should not discourage you, if you are not a professional teacher! Enthusiasm may compensate lack in teaching experience. Wherever you feel you or the trainer need more expertise, look for support through professionals.

It is advisable that trainers

- have fun in working with young people
- are well informed about the topic. "smart use of IT"
- are experienced in (peer) education and participation processes
- are responsive to concerns of young people possess several soft skills
- have methodological skills or have experienced the methods themselves
- have anticipatory thinking
- are sensitive to gender and diversity issues
- understand group and power dynamics and can act flexible (considering that the training program often has to be adapted to various learning situations)
- discuss problems/concerns as they arise in the school or social environment.

Training venue

The training venue should ensure a relaxed atmosphere and a bright and friendly interior of the rooms. Don´t forget that the rooms should be big enough for group work and activating games during which the participants have sufficient space to move about. If you are organizing a training for a whole school class it can be of advantage to consider choosing a venue outside the school (if that is possible for you). A change of location can loosen up the atmosphere and add a unique feature to the training and distinguishes it from school-lessons and therefore become an attractive activity.
Possible venues can be:

- classrooms
- rooms of youth organisations
- external seminar rooms

External Training Venue, IT-Peer Training Austria (© UBZ)

Reflection, Monitoring and Evaluation

Each training session should continuously be reflected and documented by the trainer as well as by the participants of the IT-peer training. This assists you to be aware of which aspects of the training program work well, which need amendments or improvements and to what extent your program is meeting the participant's expectations and abilities. Your readiness to incorporate these observations into your training will increase the implementation of learning outcomes and objectives. Additionally the whole IT-peer training should be monitored and evaluated by the trainer (for this purpose you find evaluation forms on the project homepage).

> *It is very important that there is clarity between the teachers from the school and the trainers (doing the IT-peer training) about the devision of rules and responsibility. To get clarity on this, you need to explicity disscuss this with teachers.*
>
> Lessons learned, Denmark

As a reflection method within the trainings you can use various methods. You can simply have a feedback round on the session that you held and see if content was understood and suitable. You may further ask if it was interesting and/or fun. When having group works it can help to have one or several members of the group present their results to the whole group. This gives you the chance to correct misunderstandings and to have a discussion/exchange among the presenting persons, which will give you further information on the level of knowledge.

Peer work at HLW Leoben, Austria (© HLW Leoben)

Capacity Building: The IT-Peer Training

"Strenghtening people's capacity to determine their own values and priorities, and to organise themselves to act on these, is the basis of development."[6]
In this special context we draw on the principles of capacity building as conceptual learning approach focusing on identifying the obstacles that inhibit young people from changing behavior and at the same time attempting to supply them with the resources they need to develop personal capabilities to achieve measurable and sustainable results.

This needs a participatory approach, because you have to meet differing expectations and abilities. Further the settings in which you want to implement your approach might vary. So, due to the wide range of educational systems in Europe it was a big challenge, to create one didactical concept for peer education, which fits all countries. Different national "learning frameworks" in the countries had to be considered, e.g. the place of learning (schools, universities, non-formal youth work), the length and kind of learning experience (e.g. different forms of organisations in secondary schools, different school types, different types of non-formal youth-work). In order to cover the entire range of educational systems, this manual places the focus on the learning outcomes and results that are expected so that you can fit it to your group, time schedule and resources. You may find the standards of European Qualification for Lifelong Learning (EQF)[7] a useful tool here to consult, in order to reach a comparability of learner's competence levels. A learning outcome is a structured description of qualifications. Therefore, the training descriptions show what a learner knows, understands and is able to do at the end of the training. Aim of the trainings is that the students have a basic factual knowledge and have acquired

"Knowledge means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices related to a field of work or study."

European Parliament and Council of the EU[7]

DO YOU KNOW, THAT

Many people still dump their electronics as daily waste, which is bad for the environment.

Electronic waste represents just 0.5 % of the waste incinerated in Denmark, but represents 28 % of the environmental pollution from the waste.

Valuable and scarce resources like gold and coltan are lost if electronic waste is not recycled.

some practical skills to choose relevant information in order to carry out some peer work under supervision with some autonomy. Output-oriented educational systems contrast with the input-oriented or traditional systems that most European educational standards are still referring to. Input-oriented educational systems have a governmental curriculum mandatory for teachers with specifications concerning duration, place of learning and teaching contents for each subject. The didactical concept of the IT-peer training is structured differently. It does not only focus on the factual knowledge, but regards the inclusion of competences and "social skills" of the trained young people even as important. Skills mean the ability to apply knowledge and use know-how to complete tasks and solve problems. They can be cognitive or practical skills. Competence then, describes the ability to make use of this knowledge and skills at work or study, for professional or personal development.

Teaching Guidelines – Social Aspects

As mentioned before, for the success of an IT-peer training not only technical knowledge, but also factual knowledge and problem solving skills as well as other "soft skills" are needed.

Be careful with stereotypes, many girls enjoy playing with technologies!

Lessons learned, Netherlands

Also codes of ethics have to be considered. Therefore an essential part of the training was devoted to personality development of the future IT-peer educators. The following aspects were integrated in the IT-peer program:

- Empowerment: During the training the future peer educators were encouraged to get involved.
- Motivation: Future peer educators should be aware of their own motivation. What are the reasons for taking part in the IT-peer training?
- Strength orientation: Future peer educators should be motivated to get involved with their own ideas, knowledge, skills and abilities – both in training and in the peer work. Their statements should be taken seriously.
- Activity orientation: The program of the IT-peer training should particularly focus on stimulating activities and "learning by doing" instead of ex-cathedra teaching.
- Updated, correct and unbiased information: The program of the IT-peer training should place a high priority on communicating current and unbiased information. The educational level of the participants should be taken into account, when planning the lessons and methods.
- Personal responsibility, self-determination, independence: The future peer educators should learn how to take on personal responsibility for their work and actions. This is essential for their function as role models for others. They should further learn to think critically about facts and habits taken for granted and find creative and alternative solutions to unsustainable practices which tend to dominate IT-use. Therefore during peer trainings self-examination of values is promoted and values should not be imposed. Extremely useful are questions, that help the future peer educators to explore and examine their values.

It is important that the school doesn´t make the IT-peer training compulsory in such a manner that resistance is created beforehand.

Lessons learned, Netherlands

Timmy de Vos, IT-Peer trainer, The Netherlands

Interview

What do you think is the special feature of peer-education?

useitsmartly showed that peers relate way better to each other when communicating sustainability messages. Young people particularly have the ability to make a message more appealing. And peer education reduces the paternalistic character of 'a teacher' telling you what's right and wrong.

Tell us three words that spontaneously comes into your mind when thinking on the project.

Active, educational and fun.

Do you think that peer-education can lead to energy saving behavior?

I surely believe so. Results have shown impact can be made and the reach can be great. However peer education has shown to work best when done by peers that truly and personally stand by the ideas and believe in the importance of the message.

Group work at visuel HF, Denmark ((© Aura/Sbi)

IT-peers of the Handelsgymnasiast got their certification, Denmark (© Aura/Sbi)

- Awareness of individual limits: The structure of the trainings should be designed in that way, that the participants are neither underchallenged nor overworked. Experience shows further, that when realizing problems, many peer educators believe that they must solve them, although their powers are actually quite limited.

It is important to stress from the beginning of the training that the multiplication work is the central point of the whole training.

Lessons learned, The Netherlands

- In the training the young people should learn, that in a helping and advising process, they can only work within the limit of their own control and everything else depends on the possibilities and willingness of the person, who is being taught.
- Participatory democratic orientation: The IT-peer training focuses on informed citizens, who are actively involved in the society and don´t play a passive role leaving all political matters to a few selected leaders. Peer educators should understand the basic values of democracy and provide other peers with relevant information, building capacity and promoting sustainable values about smart IT-use.
- Gender and Diversity should be considered in the IT-peer training. This means: "Do not assume categories (like sex, "not environmentally interested"), do not replicate stereotypes (only allowing "man/woman" categories in survey); allow for diversities: different ways of learning and knowledge, different kinds of actions; empower students: e.g. give room for personal experiences and solutions, do not let the same students dominate." [8]
- Transparency: All decisions made during the IT- peer training and the multiplication process should be transparent and clearly documented.
- Reflexivity: The ability to reflect can be encouraged through feedback rounds and "reflection sheets", which raise questions such as: "What is my opinion to the topic?", "What was most/less interesting?" (an example of the sheets you find on the project homepage).
- Sustainability: The future peer educators will advocate for the adoption of a sustainable and energy saving use of IT.

The Units and Training Methods

For better comparability and recording that the learners can achieve the expected output, the learning outcomes are structured into a set of different units. These units are the base for the training program and assessment. When forming the following units for the IT-peer training it has been considered that sets of learning outcomes with a specific connection were pooled together. The units for the IT-peer training are designed in such a way that they can be completed as independently as possible of other units and include all necessary learning outcomes. This means that it describes the intended professional competences as well as the necessary social and per-

Unit 1: Green IT-Peer Training, Austria

TIME	WHAT?	WHY? HOW?	MATERIAL
10:00 - 10:30	welcome introduction project presentation	information about objectives and content, lecture	beamer, laptop. ppt
10:30 - 11:00	introduction game: meeting café	warm-up, team-building, teamwork	sheets for the „meeting café"
11:00 - 12:30	"I know, what you did last summer"	every day practice, chacing Mr. Martinez, find the profile, count the clicks, pair-work	computer/internet, smartphones, work sheet
12:30 - 13:30	Lunch		
13:30 - 14:30	data protection, make your mobil safer, transparent costumer	capacity building: security measurements, own experience and/or pair work, discussion	input, working sheet, computer, smartphones
14:30 - 17:00	counting mouse clicks, energy consumption, serverfarms, search engines	evaluation mouse-clicks, own experience, lecture, discussion	ppt., laptop, beamer

sonal competences in this context. As the theoretical part of the IT-peer training was planned as a course of three days the relevant learning outcomes were not to be too extensive and achievable in the given time. Following, you find some successful training methods, which were applied within the useITsmartly project. The information is divided into warm-up methods for the beginning of the training and teaching content for green IT use. Some of the worksheets and material listed below you'll find on the project homepage. Additionally the following pages contain information on further educational resources on green and smart ICT usage as well as on environment and climate change issues in general, which could be helpful for setting up your own IT-peer training.

Warm-up

Warm-up rounds in the beginning of your training can be very useful for the introduction of the topic. Depending on whether the group has been commited to the training or freely chosen to do it there might be resistance towards the topic. At first environmentalism might not be very attractive everywhere among youth, further the term "IT" can lead to expectations of highly theoretical input and fear of boredom or performance pressure. Other good reasons for warm-up games may be that the group might not be acquainted with each other, or your person for instance.

Meeting-café
Objectives: Teambuilding
Time: 30 min.
Material: Work sheets
Remark: The results can be used in a round of introductions, where the participants don´t only present themselves, but present another participant.

Process: This is a quite well experienced method for teambuilding especially for starting a (training-) program and can also be called "autograph-search". Each participant will get a work sheet with various statements. Now he/she has to If he/she finds a person who agrees, this person has to sign the statement on the sheet of the interviewer. Then another round follows. At the end of this group work all statements should be signed, but it also possible to stop the process earlier.

Many lower educated youth became engaged and empowered when asked for their own solutions and ideas.

Lessons learned, The Netherlands

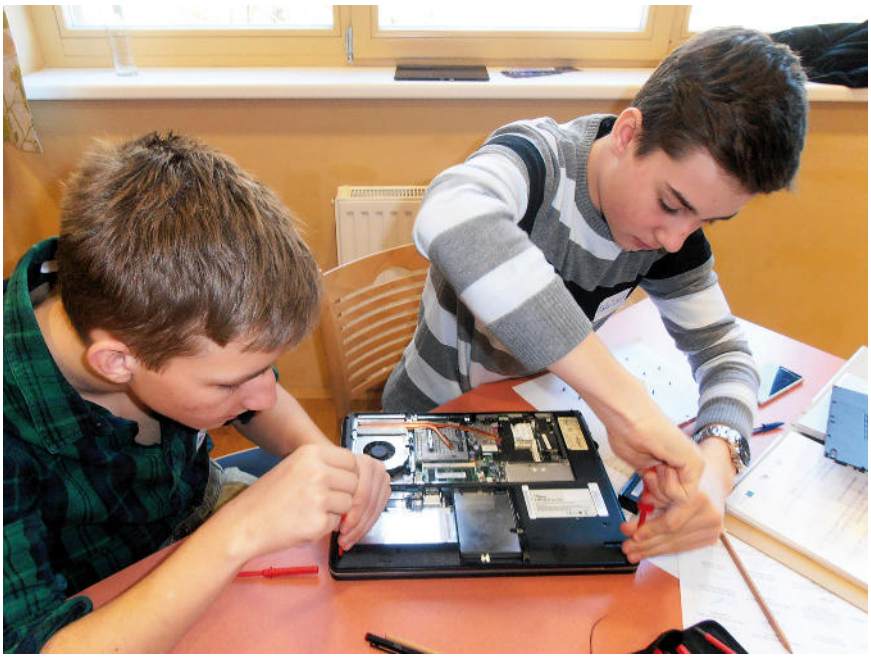
Hot chair
Objectives: Getting an introduction to a special topic in a fun manner
Time: 10-20 min.
Material: Cards with statements on IT-use, chairs
Process: Chairs are positioned in a circle, everyone but one person is seated. The person that is not seated reads aloud the statement on one card or thinks of a statement by her- or himself, e.g. "My smartphone is the first thing I see in the morning and the last thing I see before I

got to sleep". Everyone for whom this is true, gets up from the chair and tries to find another chair to sit on. One person will be without chair and the process repeats itself.
Remark: It is important to keep the speed in it. It can be helpful when the trainer is involved and takes the first card to shows how it works.

Group size matters! In general it is challenging to work with large groups and it needs more assistance. Smaller groups are recommended.

Lessons learned, Norway

Working with pictures
Objectives: Visualisation tool, emotional inputs from the participants
Time: Depends on number of participants
Material: Picture cards, YouTube movies



Dissambling laptops, IT-peer training Austria (© UBZ)

Process: Each participant is asked to choose a favourite picture from an array of different kinds of pictures. The aim of this exercise is to give participants a chance to briefly introduce themselves and then to provide emotional input concerning their attitude towards the topic via the image s/he has selected.
Remark: This is a good "ice breaker" tool when working with groups and is most adequate also for youth groups.

Introduction to the Topic of Climate Change

Many other projects and NGOs have already compiled valuable and nicely prepared teaching materials on the topics of climate change and its consequences. For the introduction of your peer training it might be good to start with some general information in order to embed the topic but also bring all participants on the same level of knowledge there.

Ecological Footprint
Objectives: Visualisation tool
Time: 30 min.
Material: Computers, smartphones etc. with internet access for each participant
Process: This online tool covers various areas of consumption, such as living, shopping etc. and calculates the personal ecological footprint. It sensitizes towards making a change by individual change of consumer behavior.

Climate Witnesses
Objectives: Visualisation tool
Time: 45 min.
Material: Climate Witnesses' reports on how their living environments have changed during a certain time-span, paper, pens
Process: Form groups of max. 5, hand out a report to each participant and have them quietly read the reports and answer the questions on the poster. Finally, they present their results to the others.

ICT-Related Teaching Material

The following list of games and activities lead more into the field of energy consumption and ICT.


Workshops with a NGO, Denmark (© Aura/Sbi)

> *A lack of skills and competences can make the peer work a bit harder. It is key to set the ambitions in line with what you can reasonably expect from the students.*
>
> Lessons learned, The Netherlands

Energy Metering
Objectives: Visualisation of energy consumption, connection to personal everyday use of energy, introduction of stand-by-energy consumption
Time: 45 min.
Material: Energy metres (sometimes you can borrow some at consumer agencies), a variety of electronic devices to measure (ICT and non-ICT)
Process: Let the young people on their own detect the energy consumption of devices they use everyday. Have them check energy consumption of devices when running and when in "stand-by" ask them to write down their results on the work-sheet (see project homepage) and let them compare and discuss them.

Lifecycle of a Smartphone
Objectives: Establish a connection between energy and resource-consumption of a smartphone and explain that this starts long before the personal use, and does not end after that; introduces criticism of working conditions and conflict materials, recycling methods etc.
Time: 45 min.
Material: Movieclips, Worksheet "Energy Contained in a Smartphone" , Game "Handy Crash" which is based on the famous game "Candy Crush" and gives short information on the lifecycle of it between the levels (all materials are available on the project homepage)

Process: Introduce the topic with a movie clip, there are several good ones one the internet (see project homepage for suggestions). You might as well use the online-game "Handy Crash".
Remark: At the end of the brochure you also find the reference to the brochure "MakeITfair" by Germanwatch (only available in German) it has additional information on the topic that might increase your knowledge on the life-cycle of IT.

Disassembling Workshop

Objectives: Visualisation of materials and construction of ICT, fixability of devices, hands-on-activity/practice
Time: approx. 45 min. to 1 hour (depending on groupsize and amount of devices).
Material: Old, broken ICT, anything you can spare, take care to have a variety of devices here, too. PCs, notebooks, smartphones, mobile phones, etc., enough screwdrivers in various sizes

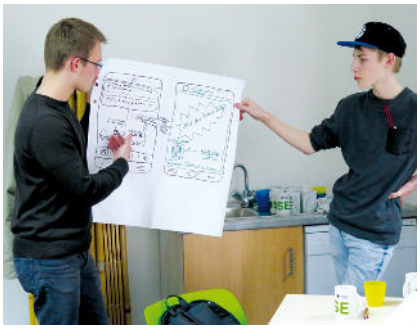
Process: Let participants (in groups of 3-5) disassemble IT devices and discuss what they see. Go around and assist and explain the inner parts and materials of the corresponding device.
Remark: This works best after the "Lifecycle of a Smartphone"-Unit, because you have presented topics such as conflict materials, recycling etc. beforehand. It nicely complements to it. Make sure that you can answer the questions and know the materials and parts. useITsmartly has filmed such a workshop, you find the link to the clip at the end of the brochure.

Giving presentations is generally considered difficult and challenging. Using a mix of methods helps to deal with a lot of content and makes the training more vivid.

Lessons learned, Germany

Google Game

Objectives: Visualisation tool
Time: 45 min.
Material: PC (or notebook/tablet) with internet connection, two browser windows simultaneously open, list of words (nouns)
Procedure: Form two groups, give the



same word (nouns) to each group and give them 30 seconds time to form a compound (a word consisting of components that are words as rowboat, strawberry, goldfish etc., e.g.), explain beforehand that players are only allowed to make noun-noun-compounds (not highschool, e.g.), so that the results are comparable, explain beforehand which "Google-purpose" the word will serve. Three options are possible: the most hits, the least hits and the fastest search. The latter makes visible that Google-searches take different routes through the net every time and that data travels long distances, is nicely combined with information on data traffic, servers etc. Play three rounds for each kind of search. Keep a list of which group won how many rounds, make a reflection round of the game.

Counting clicks

Objectives: Energy consumption of internet searches
Time: 45 min.
Material: Computers for at least 2 people together, worksheet "Counting Clicks" (see project homepage)
Process: Have participants perform the searches, which are described (or others that you may find inspiring). Have them simultaneously count the clicks they use, let them calculate the power consumption per click. Reflect the results.

Data's Journey Through the Web

Objectives: Data travel and resulting energy consumption of internet searches
Time: 45 min.
Material: Computers for at least 2 people together, worksheet "Data's Journey Through the Web" (see project homepage).
Procedure: Have participants perform the searches, which are described (or others that you may find interesting). Reflect the results.

Creativity workshops

Objectives: generating ideas e.g. for multiplication activities or vehicles, activating youth and empowerment
Time: at least 2 hours
Procedure: Getting young people to think of their own creative solutions for improving the environment or for reaching others (e.g. schools, IT companies or other youth,) proved to be a major way of getting youth enthusiastic and empowered. Originally, interviews with youth left the impression of youth who are not interested in the environment and feel helpless in the face of large challenges like environmentally pollution or needing to change deeply embedded social media practices.

Meeting-café at the IT-peer training, Austria (© UBZ)

Disassembling workshop at the IT-peer training, Germany (© BUW)

Creativity workshops amongst similar groups of youth almost gave the opposite picture and so may offer a way out of this feeling that all youth can do is 'a drop in the ocean'. Creativity workshops can be used as a building block, e.g. as part of peer education or to generate ideas for vehicles (see next section). Whichever it is used for, the generation of creative ideas should be about something concrete and recognizable for youth e.g. activities that 1) are very common among young people, 2) have large consequences for the environment, and 3) are feasible for youth to come up with ideas can be selected. It may be important to select two or three topics for a workshop to give youth the option to select between topics of their own interest.

Introduction: During the introduction, an atmosphere needs to be created in which youth feel that they are the experts and that their help is needed. Warm-up games are crucial to energize the youth and to get them focused on the topic. More in-depth information on the topic on which they will need to think creatively should be given. Moreover, it is important to not focus too much on horror-stories about how bad the environment is doing, or how hard it is to change behavior or reach youth, to avoid participants to feel helpless. Relating the introduced topics to their own practices helps to make the topics tangible.

Brainstorming rounds*:* During a first brainstorming round (in groups of 4/5), divergence is crucial. With this, we mean that as many ideas as possible need to be generated, without judgment. This can be stimulated e.g. by providing pictures on practices that need to be changed and by asking participants to write or draw each idea they get (no matter how silly) on a separate piece of paper. The ideas can be passed around so other participants add improvements/comments. During the convergence phase, the best ideas from the brainstorm can be further worked out. With the help of pre-made forms, or probing by the workshop leaders, participants can be guided to specify their ideas, to get from an idea to a plan that is as realistic as possible.

> *"Well, people already know the things about switching off the light and that they should wash clothes at a lower temperature and things like that. I think that with IT, one could really do much more in order to increase awareness about this."*
>
> Member of Danish focus group 1

To stimulate enthusiasm and a sense of empowerment, at the end, each group can be asked to present their best idea(s) to the rest of the participants. In addition, participants can evaluate the workshop, including which insights they gained. This evaluation may also help to send participants home, or to their next activity, with a sense of achievement.

Vehicle Workshop

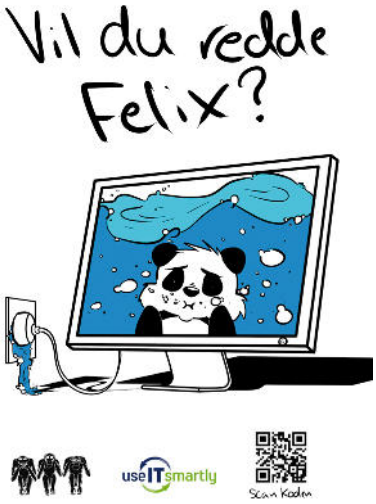
Besides peer education a second educational approach was used within useitsmartly, the so-called vehicle theory (Thaler/Zorn 2010) [9]. The basic idea is to use an inherent field of interest for young people like music, sports or fashion as an entrance point for teaching technology and science-related contents, which at first glance seem rather unappealing to them. Thus, in the case of useitsmartly the topics of energy efficiency and reducing energy consumption and CO_2 emissions related to ICT were only indirectly thematised. Some examples for possible vehicle workshops:

Photo Art

Knowledge on energy saving while photographing or printing or posting pictures online but also the process of choosing a theme for the image could relate to environment, technology, e-waste etc.

Theatre Play

By writing and practicing a theatre play on a chosen topic within smart and sustainable ICT use, students will learn about central issues of the useITsmartly project such as energy intensive ICT practices, electronic waste problems, how to save energy etc. (you can find the play "The last Year of Snow" by the Norwegian artist #pondering_noodle on the project homepage).



Solar Fashion

By creating solar-fashion (for charging mobile devices outdoors) the students (and also potential peers) will thereby learn about energy efficiency, saving energy and reducing the climate impact of IT on a secondary level. A vehicle workshop can be divided in three phases:

(1) Conception Phase: vehicles will be introduced to the participants, who will decide within smaller working groups with which specific vehicle training they would like to proceed. Youth then will engage in a creative brainstorming process (i.e. creativity and design workshops).

(2) Realisation Phase: the creative ideas developed in the context of the vehicle topic will be realised. Involved adults should not act as teachers but as coaches to the pupils and support them in what is actually feasible, in the choice of materials, and assist them in the realisation of their ideas. The pupils should feel encouraged to find their own solutions. Coaches have to take into account gender inclusive and reflective didactics.

(3) Presentation Phase: The outcomes of the vehicle learning and the developing process will be presented in a public activity organised in close cooperation with the respective youths. This can be a show at the partaking school or an exhibition. The participation of the pupils in the form of freely choosing an idea to follow, in its design and realisation, and in organising the presentation event, raises their commitment compared to non-participatory school projects.

Linking Vehicle Approach with IT-Peer Education

The vehicle approach was implemented in the IT-peer training, and also took place in form of school-workshops in and outside school classes, or informally during the leisure time of the young people. While implementing the vehicle project more information and facts on smart IT-use were provided. The vehicle workshop is also a chance to identify some students, who would also like to take part in the IT-peer training. The "products" and presentation phase of the vehicle workshops can be easily integrated in the multiplication work of the IT-peer educators and can even support it. You can find more information on how to organise and set-up vehicle workshops as well as content ideas in the information section at the end.

Anita Thaler, Researcher at IFZ, Austria

Interview

What do you think characterizes the "vehicle-approach"?

The great thing about connecting learning contents to youth interests, is to inspire people for energy saving IT usage, who would not been interested in technology, physics or environmental issues in the first place.

Tell us three adjectives that spontaneously comes into your mind when thinking about the project.

Creative, interdisciplinary, engaged.

Do you think that the 'vehicle-approach' can lead to energy saving behavior?

Of course! The vehicle-theory is based on participatory pedagogy, which needs time and engagement of all involved actors. In compliance with these requirements youths relate to the vehicle topics and can create own ideas (like solar fashion).

The box for questionnaires are being prepared, Denmark (© Aura)

Creating ideas, The Netherlands (© Dune works B.V.)

Peer Work and Multiplication

Peer education usually consists of two steps: The training as well as the peer work and multiplication process. The latter one aims at transferring the knowledge and the opportunities for action learned during the IT-peer training from the peer educators to their counterparts.

> *It is important to stress from the beginning of the training that the peer work and multiplication process are the central points of the whole training.*
>
> Lessons learned, Denmark

Creativity Methods for Peer Work and Multiplication

Following, four group working methods are introduced, which can help the peer educators to get prepared and develop ideas for their future multiplication work during the training sessions.

Creative Group Work

Objectives: "Learning by doing", engaging in a creative work process, learning self-responsibility

Time: at least 45 minutes (depends on how much time the trainer wants to spend on a special topic)

Material: Flip-chart paper, writing utensils, other materials

Process: The group is subdivided into small groups. The groups are asked to work out tools, which could be helpful in addressing a lot of other young people (e.g. poster, post cards, stickers, movies, brochures etc.). Initial question would be: "What do you think are the best communication ways to reach other young people?". After the work session the groups present their ideas to the others and discuss together the pro and contras of outcomes.

Remark: "Learning by doing is one of the most important methods in a peer training, but is very time consuming. This group work fits perfectly to schools with media, communication and graphic departments.

Walk and talk

Objectives: Reflexion and creating new ideas

Time: 30 min.

Material: none

DO YOU KNOW, THAT

Repairing broken devices instead of buying new one's is good for the environment and can save you money.

It can be very expensive to get a device repaired and many companies design their products so it is not easy to repair them. But don't panic! The Wiki-community iFixit.com provides manuals on how you can fix your broken devices.

Process: Participants are asked to take a walk in a group of three. The person in the middle starts to speak 5 minutes about the issue given by the trainer, such as: "How will you manage the peer work and multiplication process? Which method do you want to use and how will you address the other peers?" The other persons are not allowed to interrupt her/him in this time nor should they raise any question to him/her. After 5 minutes the persons will change the position and another person will take the middle position, speaking another 5 minutes about the issue. In a third round the last person also speaks 5 minutes. At the end of this process the participants will come back in the training room and the outcome as well as the accompanying emotional experience will be discussed in a plenary session.

Remark: Usually the participants make quite interesting experiences with this kind of method, because people are not used to speak without being interrupted.

> *A lack of skills and competences can make the peer work a bit harder. It is key to set the ambitions in line with what you can reasonably expect from the students.*
>
> Lessons learned, The Netherlands

Walt-Disney-Method

Objectives: Role play, helps in decision making

Time: Depends, how much time the trainer wants to spend on a special topic (at least 30 min.)

Material: Three chairs, 3 sheets of paper on which is written: dreamer, realist and critic; tape, paper, pens, alarm clock, possibly accessories to underline the different positions.

Process: It is a kind of role play where three specific roles are casted:

- Dreamer: This role didn´t consider realistic implementation, but is very subjective and enthusiastic about new ideas.

- Realistic: This role has very practical-pragmatic points of view, develops action plans, analysis the necessary requirements, working steps and mechanism for implementation.
- Critic: This role analyses the suggestions of the other in a provocative way. The review is constructive and positive, in order to identify possible sources of error.

The three roles will start a discussion of a special topic given by the trainer and it will be discussed as long as the groups come to a common result. Those who are not integrated in the role play will observe the process and further write the different contributions on the flip chart. Afterwards an evaluation of the process as well as a discussion about the concrete results will be carried out.

Kristine Klock Fleten & Anna Solberg, UngEnergi, Norway

Interview

Do you think that peer-education can lead to energy saving behavior?

Yes, we believe that peers understand each other easier. Therefore, they have the power to influence in a different way than adults can. This is also the philosophy behind our website www.ungenergi.no.

Tell us three words that spontaneously comes into your mind when thinking on the project.

Creativity, involvement, awareness

How will you integrate the issue of smart IT use in the future work of UngEnergi?

We plan to create a "project package" for teachers inspired by useITsmartly, because we believe this topic is suited for our website. Bringing this topic into the classroom through teachers will hopefully raise awareness about energy saving among youths.

E-waste Arcade , The Netherlands(© Dune works B.V.)

Peer work at HBLFA Raumberg, Austria (© HBLFA Raumberg)

It is a big challenge to keep the motivation of the peer educators from the training up to a fixed date for the peer work.

Lessons learned, Austria

Role Play Simulation

Objectives: Rehearsing possible situations in preparation for the upcoming multiplication process and to improve communication abilities.

Time: 45 to 60 min. (depends on how much time the trainer wants to spend on a special topic)

Material: paper, writing utensils

Process: Groups are formed in order to develop a smart IT-use related role-play. Each group consists of one or two future IT-peer educators and some peers representing the audience e.g. a school class. The groups are asked to work out a likely scenario of what a presentation or workshop on smart and green ICT use could look like and what obstacles might evolve for them during or after the presentation/workshop. Afterwards the role-play could be performed in a plenary session and the participants can share ideas for overcoming problems and challenges.

Remark: This simulation should contribute to capacity building as multiplier in a safe and supportive environment. Experience shows that this is a powerful teaching technique in face-to-face teaching.

Examples for implementing peer work and multiplication

As illustration how manifold and creative the multiplication work can be, you find here some practical examples of the knowledge transfer done by the IT-peer educators in Austria, Denmark, Germany, Norway and The Netherlands, which might inspire you and others:

Peer work through direct face-to-face interaction between peer educators and peers

This is done mostly by workshops and presentations in classes (in the own school but also in other schools): E.g. in Austria 4,248 peers from 148 classes were directly reached through 115 presentations and 33 workshops. Assuming that the IT-peers further told their family and friends about their experience 16,840 more persons could be informed about this issue. Also in the other countries face-to-face peer work was implemented as one main way of communication.

Attendance at public events

In Norway peer educators joined the useITsmartly team on the science fair in Trondheim with 7.000 visitors, where they distributed their brochures and presented posters.

Design and development of dissemination material

In Denmark, Norway and the Netherlands various posters, stickers and post cards with information on (ICT related) energy saving were created by IT-peers and disseminated at schools, universities and directly among their peers.

Raising attention through actions and objects

In the Netherlands an E-waste Arcade was positioned before the entrance of the University. Further an IT-waste tree and an IT-collage-painting were exhibited at one school. In Denmark fellow students should dump their used batteries and electronics into the mouth of the green pig and waste will be delivered to correct disposal.

Or, also in Denmark a multiple choice questionnaire about the ICT energy consumption had to be filled in by the classmates and was collected in a box in a school canteen. The person with the highest score won a cinema ticket and a solar power recharger. This led to various discussions among the students.

Integration of the issue in future peer work of NGOs and schools

In Denmark the participants of a workshop with the NGO UngEnergi will further

integrate the issue IT into their program about energy saving. In Germany the topic green IT use was integrated into the programme of an existing Climate Working Group at one school, which informs from now on every year the 9th graders about the subject.

Online multiplication

In Denmark students created the "Illuminati Movie" and created a creative link to saving standby power consumption. This movie was placed on YouTube. Further a comic strip with a short story about a young woman tired of all environmentalists and hippies trying to get your signature for good causes. The solution is to get unplug devices and get rid of the hippies and make the world a better place. A QR code links to the illuminati movie.

"Well, I believe for myself, in order to change the future here [...] if I will buy a new mobile phone, then I will buy one that can do all things for me that I need. Because then I wouldn't have to own a notebook and a mobile phone and an mp3-player and who knows what, but I will try to get a device, that I can use for everything together [...]. I don't know how good that would be, but it seems to be the most logical conclusion to me. [...] Not always buy everything new, [...] only when really necessary. And then really pay attention to the energy efficiency [...]."

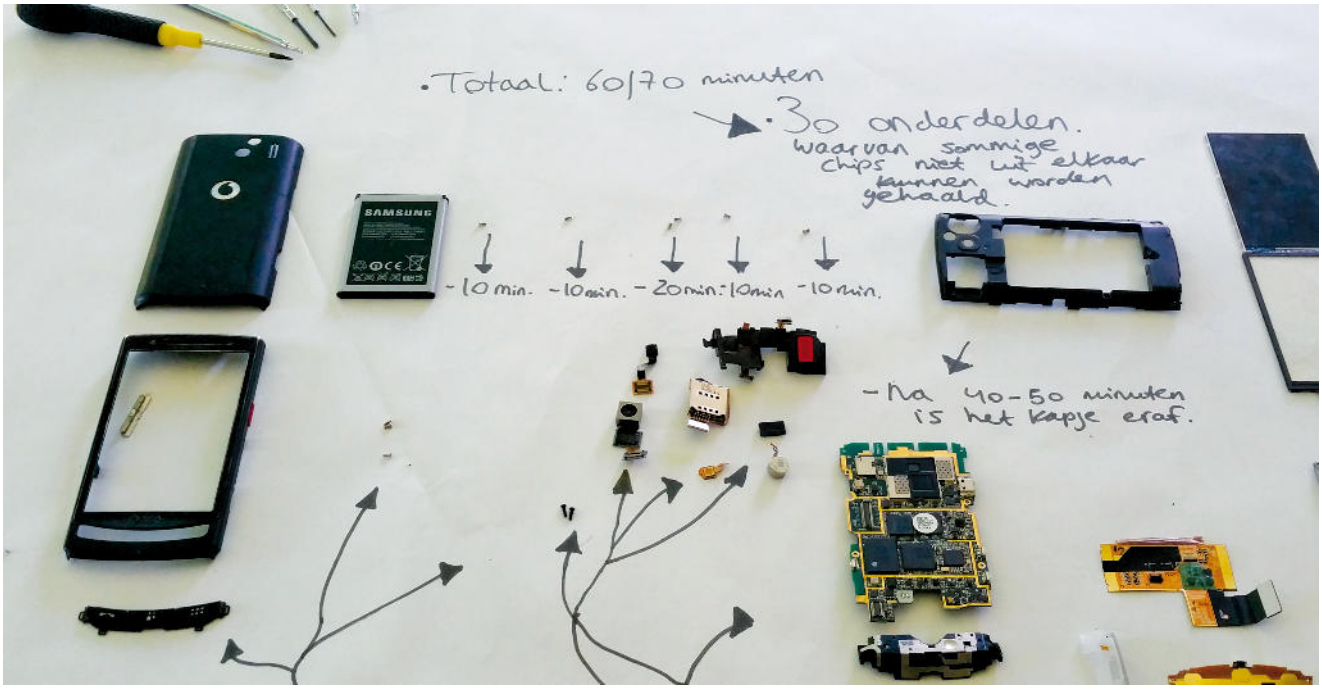
Member of German focus group 3

In order to disseminate the products of the vehicle and peer training the Netherlands and Norway used mostly YouTube, Facebook, Instagram, Twitter and other social media. In Norway a group of peer-educators wrote and produced a song on how to use ICT more environmentally friendly, which is available on YouTube as well as a short clip from a Dutch dissembling workshop, were passing students were invited to disassemble ICT devices. In Germany the IT teacher of a participating school agreed to use the created Facebook page of pupils during the training as start page of all school computers.

Presentations in front of a wider audience

Norwegian peers designed posters, which were presented as a public exhibition.

Peer work with younger pupils from a secondary school, Austria (© HBLA Sitzenberg)



Dissembling a smart phone, IT-peer training Netherlands (© Dune Works B.V.)

About useITsmartly

Environmental Peer-to-Peer Education for Youths with Focus on Smart Use of Information and Communication Technologies – useITsmartly

useITsmartly was a project funded by the European Commission within the Intelligent Energy Europe Program (IEE) and was conducted from April 2013 to April 2016. The project's main objective was to enable youths between 16 and 20 years to use ICT in an energy saving, "smart" way and to pass this knowledge on to their peers and thus support the European Union in the realization of the 20-20-20 goals.

Specifically, these objectives are:

- Reduction of greenhouse gases by 20 % compared to 1990
- 20 % of energy generated from renewable sources
- Improvement of energy efficiency by 20 %.

The useITsmartly consortium consisted of partners from five European countries: Austria, Denmark, Germany, Norway, and The Netherlands with diverse experience in the field ranging from technological and societal aspects to the didactical knowledge. The invisibility of the seemingly immaterial, virtual services and goods and their effects on energy demand and environment are a challenging field of action. "useITsmartly" wanted to close this gap by developing innovative solutions to facilitate young people's capacity building of smart IT use and ideas how to reach them with this topic. Therefore, the project has gone through three main phases. The results of the previous stages of the project always flew into the next stage and its essences have finally been combined in this brochure.

Phase 1: Mapping IT user practices

In order to rightly judge the actual situation of ICT use among young Europeans and not to lose touch with reality data had to be collected. Mixed methods were used, such as a standard quantitative data collection on the amount of energy used on ICT in European households, a questionnaire testing young people's ICT user habits and comparing these results to pre-existing national studies. In order to get further information and to find out about the motivation behind these user habits each country performed focus group discussions that circled on ICT usage and the visibility of a connection between

DO YOU KNOW, THAT

If you switch of all devices in standby at home you save about 10 % of the electricity consumption today.

The EU Eco-Design Directive sets maximum limits for standby power consumption of computers and many electronics.

Game consoles like PS4 and Xbox One have high standby power consumption – up to 10-20 Watt.

this use and energy consumption or environmental issues and if it was conceivable to change individual user habits. Apart from very interesting insights on the influence of ICT on youth's everyday lives six main practices of high energy consumption which are very common among youths could be filtered from this procedure (switch off vs. standby, buy new or recycle, simultaneous use of ICT or screens, broadband (4G) vs. Wi-Fi, exchange of school-IT and usage of it, energy saving via ICT, ideas for campaigns or other ways to inform/activate people).

> *"I check facebook a few times every hour. When I come home from school I turn on the PC. So I'm using it all"*
>
> Member of Norwegian focus group 3

Phase 2: Exploring innovative solutions and ideas to facilitate and encourage energy-efficient IT practices together with youth

After collecting the practices mentioned above, youth again were asked to give their input by ways of creativity workshops in which they tried to come up with solutions or ideas for a change in behavior for these practices. These workshops formed an approach to engage young people with the topic of smart and energy-efficient ICT usage and it showed that participants were easily able to perform the task of developing ideas for promoting green IT use even without previous or expert knowledge. About fifteen creativity workshops were held. These workshops not only raised awareness and generated action plans for youths, they also helped to inspire and empower youth. Participants to these workshops felt recognized as important and resourceful, which some, particularly from lower educational schools, described as an invigorating new experience. Totally 232 ideas from 415 young people could be gathered in the creativity workshops. All ideas were assessed according to their (technical) feasibility and impact by experts and they form the basis of a toolbox, which is accessible online: http://www.useitsmartly.com/toolbox/. Parts of the creativity workshops were also included in this brochure because they were very successful and form a highly participatory approach (find a link to the complete material on the project homepage). The developed ideas ranged from rather technological solutions, such as certain automatics that would switch off equipment to awareness raising campaigns.

Phase 3: Training of Green-IT-Peers to be trainers themselves

The training of Green-IT-Peers formed the centerpiece of the project. Now it was time to motivate youths to become active. Taking a diverse group of young people into consideration meant that the project partners had to come up with a variety of methods and materials.
A didactical concept was developed that could be adjusted to various settings and consisted of a modular structure. This form ensured that the training could be used in various settings with differing age groups or time slots. Regarding the content in the first step information on the connection between climate change, energy consumption and ICT had to be brought to the peer trainers to-be in an easily comprehensive way. Next they had to see what it meant to be a peer trainer and how to best inform friends and classmates on these issues. This brochure comprises the materials and tools that have been pre-tested in this project and evaluated by more than 300 young Europeans. They form the attempt to facilitate other young people, educators, or activists to initiate Green-IT-Peer trainings themselves or draw on elements from it in order to design a unit for schools or other settings.

Daniel Buchenauer, Realschule Leimbach, Germany

Interview

You are a teacher and took part in the creativity workshop at your school. What did you like best?

Asking the pupils to be experts elicited their intrinsic knowledge and motivated them to become creative, it is a nice approach, I think.

Did you expect your pupils to be so creative?

I know that my pupils can be very creative but on a topic as special as this and in such a small amount of time it was a challenge, which they mastered well.

Do you think that projects like useITsmartly can help to activate young people to save energy?

I think that the peer trainings can have a strong impact but already after the creativity workshop I think the pupils learned something. They often tell their parents at home about the facts they learned, they like to be experts on practical things.

Teaching material available on www.useitsmartly.com

Curriculum of the IT-Peer training : 4 outcome-oriented ECVET Sheets
Concept for the IT-peer training
Example for a recruitment material for inspiring schools
Common survey about the IT use of the training participants
Warm-up: Worksheet “Meeting Café”
Warm-up: Cards for the hot chair game
Worksheet “Google knows what you did last summer?”
Worksheet “Counting mouse clicks!”
Worksheet “Energy of a smart phone”
Worksheet “Google game”
Worksheet “Data´s Journey Through the Web”
Daily reflection sheet
Template for certificates
Report for each peer activity

Further Links

- Ecological Footprint (http://footprint.wwf.org.uk/)
- Klima Zeuginnen (Climate Wittnesses http://wwf.panda.org/about_our_earth/aboutcc/problems/people_at_risk/personal_stories/witness_stories/)
- MakeITfair (https://germanwatch.org/de/4205 or https://germanwatch.org/en/download/9440.pdf)
- Handy Crash (http://handycrash.org/)
- Electronics waste (http://www.ecyclingcentral.com)

Further useITsmartly outcomes

- Technical report: Identify relevant areas of energy-efficient IT use, user practices and possibilities and barriers for change (Workpackage 2, Deliverable 2.1.
- Analytical report with conclusions and recommendations for policy makers (Workpackage 2, Deliverable 2.2.)
- Technical report: Exploration of innovative solutions together with youths (Workpackage 3, Deliverable 3.1.)
- Toolbox-reports of all proposed solutions of the adolescent workshops (Workpackage 3, Deliverable 3.2)
- Collection of didactical concepts for application of the vehicle approach for educational settings targeted at smart and green IT use (Workpackage 4, Deliverable 4.1., available in German, Danish, Norwegian, Dutch)
- Didactical concept for IT-peer training (Workpackage 4, Deliverable 4.2., available in German, Danish, Norwegian, Dutch)
- Report on the trainings of the first and second IT-peers (Workpackage 4, Deliverable 4.4.)
- Evaluation workshop concept for a consortium meeting during the improvement phase – especially considering gender equality aspects (Workpackage 5, Deliverable 5.1.)
- Report of hindering and supporting factors in the process of useITsmartly and impact of project activities in terms of changing attitudes knowledge and behavioural aspects of green IT use of youths (Workpackage 5, Deliverable 5.2.)

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