

Supporting Lifelong learning with Inquiry-based education



LIBE project – Supporting Lifelong learning with Inquiry-based education

www.libeproject.it

Executive summary

“If you do not know something, Google® it”. In this well-known motto, whatever kind of information appears to be undeniably at a hand. However, there is a subtle but sensible difference between surfing on the web casually but, thanks to serendipity, finding useful information, and looking for some piece of information intentionally, devoting time, effort, concentration to reach a specific goal. And it is not only a matter of staying focused, or being motivated to learn something or to learn to do something. It is a matter of knowing exactly what to ask for, and how to ask for it. A relevant lack in basic skills such as vocabulary, reading comprehension, logical reasoning and numeracy often represents an obstacle to a proficient use of the huge quantity of information available in the net.



LIBE project - Supporting Lifelong Learning with Inquiry Based Education, funded within the Lifelong Learning Programme by the European Commission (ref. no.: 543058-LLP-1-2013-1-IT-KA3-KA3MP), aims at offering young adults (16-24 years old) with low levels of education a set of personalized e-learning courses on transversal competences, i.e. literacy, numeracy and problem solving in technology-rich environments, in four languages (English, Italian, Norwegian, Portuguese). LIBE courses are composed of 32 Multimedia Presentations and 125 Learning Objects.

This e-booklet presents the learning goals, the structure, the pedagogical approach and the assessment tools designed to rebuild transversal skills with ICT. Its aim is to offer, to teachers, educators, and professionals working with low achievers, the highlights from the work carried out in LIBE project in order to facilitate the integration process into society and labour market of young adults in Europe.

Contents

EXECUTIVE SUMMARY.....	1
HOW WE GET HERE	4
THE AIMS OF LIBE PROJECT	4
WHO ARE LOW EDUCATIONAL ACHIEVERS	4
WHY LIBE COURSES ARE DIFFERENT.....	4
ARE YOU A TEACHER OR AND EDUCATOR?	5
WHAT WE LEARNED IN DEVELOPING LIBE COURSES	5
LIBE COURSES DESCRIPTION	6
COURSE 01. HOW TO WRITE A RESUME LIKE A WIZARD.....	6
COURSE 02. EVERYTHING YOU WANT IS OUT THERE WAITING FOR YOU TO ASK	8
COURSE 03. MAKING ENDS MEET - PRIVATE ECONOMY	10
COURSE 04. MOUNTAIN BIKING IN OLYMPIC SURROUNDINGS: HOW FAST CAN YOU GO DOWNHILL?	11
COURSE 05. SAVING THE WORLD FROM MY NEIGHBOURHOOD: CHANGING HOW I CONSUME CAN CHANGE THE WORLD	14
COURSE 06. LET'S EAT! CONSUMER AWARENESS ABOUT FOOD.....	15
BASIC SKILLS TO BE IMPROVED IN LOW ACHIEVERS.....	17
CHANGING DEMAND FOR SKILLS	17
KEY SKILLS	17
THE NUMBERS OF KEY SKILLS DOMAIN	18
LIFELONG LEARNING IN THE INFORMATION AGE	18
WHO ARE THE LOW ACHIEVERS.....	19
HOW TO FOSTER SELF-MOTIVATION	19
FACILITATING PARTICIPATION	19
HOW TO INCREASE LEARNING BY USING EFFECTIVE FEEDBACK	21
WHAT DID WE LEARN FROM THE LITERATURE	21
IMPLICATIONS FOR LIBE.....	21
HOW TO USE IT IN PRACTICE	22
OVERVIEW OF THE LIBE VLE.....	23
CREATING A COURSE IN THE LIBE VLE	26
PERSONALISING YOUR COURSE	26
REFERENCES	28
CONTRIBUTORS.....	29
THE LIBE PROJECT CONSORTIUM	29
CONTACTS.....	29

How we get here

What you find in this booklet is one of the outcomes of a two-year project funded with the support of the European Commission on Lifelong Learning Programme (www.libeproject.it - PROJECT REF. NO. 543058-LLP-1-2013-1-IT-KA3-KA3MP).

The aims of LIBE project

The LIBE project aimed at designing, developing and trying out, in three different countries in Europe (Italy, Portugal, Norway), an innovative e-learning management system devoted to improve key information processing skills for ICT (literacy, numeracy and problem solving), with an inquiry-based approach to learning. Our target group are **low educational achievers** aged 16-24 (www.libecourses/moodle.com).



Who are low educational achievers

In Europe exist social groups that do not traditionally engage in formal training, such as the 80 million low-skilled young adults, that are at risk of becoming NEET – "Not (engaged) in Education, Employment or Training".

Why LIBE courses are different

LIBE courses are open educational resources licenced under Creative Commons. This means that no fees are requested, at any time, to use the course in their complete features. So feel free to use and share LIBE courses with colleagues and friends!

In LIBE courses the learner can obtain a high level of personalization in learning, based on automated computer-based assessment (CBA) and computer adaptive testing (CAT). This means that the system "learns" from student first assessment results and offers appropriate difficulty level tests at the right time.



Moreover, LIBE courses offers an innovative way of delivering learning materials, through automated texts modulation, in order to reduce reading comprehension difficulties.

One of the key topic of LIBE courses is how to use the Internet for self-learning activities. So you will find some of the basic principles of inquiry-based education applied in order to improve e-skills related to: how to retrieve an information on a

search engine, how to assess its reliability, how to search for multimedia tutorial, how to enrol in open education courses and MOOCs.

Are you a teacher or and educator?

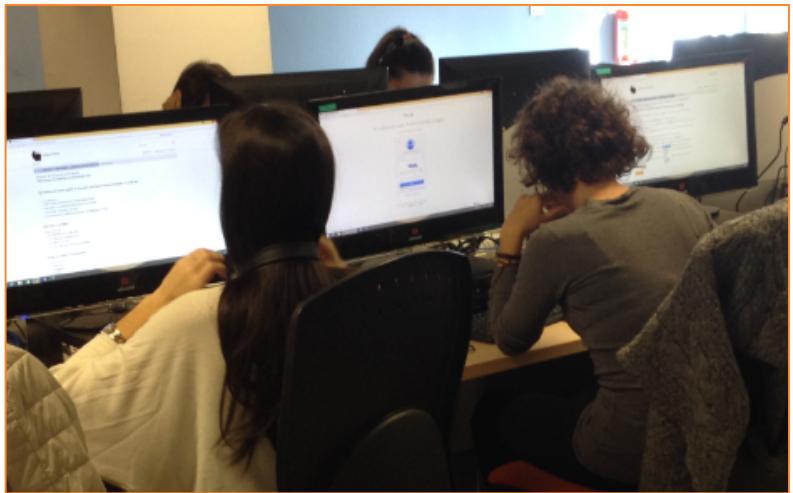
If yes, this booklet contains useful information for you to read in order to use effectively LIBE courses in your classes or to suggest them as remedial activity in students' individual study time. In addition to this, this booklet offers you insights and suggestions on how to build new e-learning modules on transversal skills.

What we learned in developing LIBE courses

Topics taken from daily life experience are immediately perceived as useful and motivate to learning. They can constitute the first step to bring the learner into abstract concepts or into culturally connoted contents.

e-Skills should be contextualized into a project-oriented or goal-oriented pedagogy in order to be attractive for young learners. Different levels of difficulty help in attract a wider audience.

Self-learning with ICT support implies, other than the achievement of basic metacognitive skills, also being able to access open educational resources available in the web. Therefore, teaching computer literacy information skills can represent a key factor for further autonomous learning.



LIBE Courses description

You can select your favourite course among 6 different proposals, all available in English, Italian, Norwegian and Portuguese language.



LIBE Courses are focused on the development of 3 main areas: Literacy, Numeracy and Problem solving in technological rich environment. Those transversal skills are fundamental for a full participation to the civic society and are dealt with a specific attention to employability related areas of content.

All courses are enriched by introductory multimedia presentation to the topic and the skills focus of the activities.

Course 01. How to write a resume like a wizard

Aims: to improve reading comprehension skills and writing organizational skills linked to the Cv preparation

Synopsis: Lessons start with a short story or a concrete case. After a brief description of the main focus of the lesson, a set of relevant activities is proposed with different response format (multiple choice, open-ended, cloze, ordering activities). This course offers a personalization at text message level to the learner (same contents, with a targeted vocabulary according the learner's level).

Trainee Receptionist Duties will include: - Answering the telephone - Arranging appointments - Communicating with Clients at reception and on the telephone - Maintaining a friendly, helpful attitude to clients - Assisting the office manager as necessary - Ensuring that the reception is kept clean and tidy - Assisting colleagues as required - Use of computer system as described in the computer manual - Telephone clients if appointments need to be altered/cancelled - Deal with messages from and to clients No experience is required as full training will be provided however a background in one of the following fields may be of advantage: Customer Service, Receptionist, Office Admin / Administrator, Office Junior, Sales, Customer Facing Retail Positions. Salary: GBP 7.0 - 10.0 (Hourly)	Job title. This is important but it is not all! Task description. Here you can understand a bit more of the work you will actually do Requirements. Here there are the past work experiences that can give you a chance more to get the job Salary. This information is not always included
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Lessons:

- Relevant information to be included in a Cv
- Different Cv structure – a focus on Europass Cv format
- Sections in a Cv: which information where
- Phraseology: the right word in the right place
- Writing a cover letter
- Reading and understanding a job advertisement

Activities:

- Let's get rid of the useless stuff
- What a mess!
- Fun celebrities' Cv
- Words speed-date
- Friends forever
- Lock the chain
- Find the correct order
- I WANT YOU (..or someone else?)
- Match the skills with the right job

Activity 6.1 Rules to write a CV

Omer arrived in France from Istanbul. He went to a Center for Employment in order to be helped to write his CV. Complete the dialogue with the right words between **Omer** and the consultant, **Thierry**.



Course 02. Everything you want is out there waiting for you to ask

Aims: to develop key information processing skills in technological rich environments (how to retrieve useful and reliable information with a search engine, how to search a multimedia tutorial, how to enrol in an open education course or MOOC)

Synopsis: The course opens with a brief introduction on the availability of information in the Internet and it guides the learner to a set of possible different paths of activities according to his/her preferences and interests. With an high level of interactivity, learner can formulate different questions to perform his search and reach different results.

Lessons:

- What search engines are and how they work
- Vocabulary development for internet search
- Critical thinking and question posing as basis for inquiry-based learning
- Information reliability: how to select a source
- Search for multimedia data and information
- Open Education opportunities for young and young adults

Did you know..

A lot of people tend to mix up things and be confused between what a browser is and what a search engine is. A browser is software installed on your PC where you can type in different website addresses or URLs (Uniform Resource Locator) to surf the web, so for example Explorer, Safari, Firefox, Chrome are browsers. Using a browser you can go to a specific webpage and given that search engines are WebPages too, you can type in www.google.com or www.yahoo.com and search there to be re-directed to other websites and internet pages.

Browsers and search engines are like matryoshka dolls, the Russian nesting dolls of decreasing size placed one inside the other.

When you open a browser on the top of the page the address bar shows the URL of the page that the browser is currently showing. You can type a web address in the **Address Bar** and press ENTER on your keyboard to load a new page.




For example, opening Firefox you can type the URL of Google and then press ENTER on your keyboard, like this:

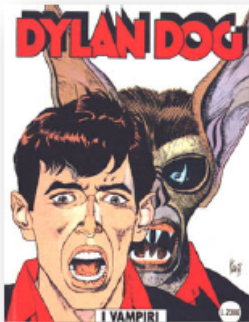


Activities:

- Seek and you shall find
- Reach the address (and ring the bell!)

- Tell me your search results and I will tell you who you are
- Clean the spot
- Let's go to the movies
- The story going on
- Who's who
- Play with words
- Always make questions
- Questions, questions
- What a word can tell you
- A video is worth thousand words
- To trust or not to trust, this is the question
- The future belongs to those who prepare it today

He inspired several authors, in literature and music. Robert Allen Zimmerman, aka **Bob Dylan**, the famous singer of *Blowin' in the wind*, took his stage name inspired by Dylan Thomas.



An Italian cartoonist took the name of his main character for horror stories mainly set in London **Dylan Dog**, inspired by the poet at the same way,

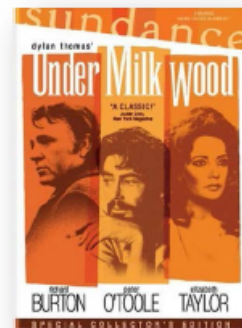
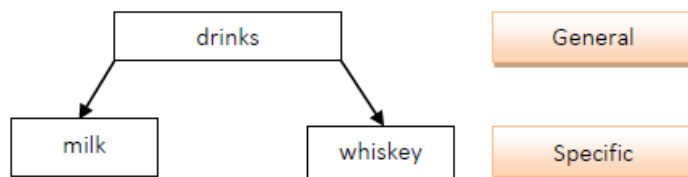


Dylan Thomas inspired also the **beat generation**, a movement of American writers that in the '50 proposed the rejection of received standards, innovations in style, use of illegal drugs, alternative sexuality, interest in religions, reaching the production of writers as Jack Kerouac (who was a favorite readings of Jim Morrison, the Doors singer – but this is another story..).

Igor Stravinsky, the Russian composer of *The Rite of Spring*, composed *In memoriam Dylan Thomas* after having seeing him dying in New York, for a mixture of alcoholism and pneumonia.

One of Dylan Thomas' most famous works is *Under Milk Wood*, a 1954 radio drama, spoken by actors that later became a film with Richard Burton, Elizabeth Taylor and Peter O'Toole (1972).

For sure Tom has something to say to Anne, now.
Let's consider some of these facts and play with these words a bit.



Course 03. Making ends meet - private economy

Aims: to improve numeracy skills and get a better understanding of private economy

Synopsis: With a "the more local, the more global" philosophy, situations relevant and recognizable for teen-agers in a small town in Norway have been chosen. The unit starts with a digital story introducing two teen-agers, giving some glimpses from their daily life. Thereafter, various numeracy activities related to the two young adults' economic dilemmas follow in an "every day" context. Each activity is introduced with a short non-verbal digital story.

Lessons:

- Numberlines, calculate with percentages, and the relationship between percentage, decimals and fraction
- Estimation and division
- Currency converting and addition
- Extract information from tables and charts - multiplication and subtraction
- Construct pie chart

Introduction



Hi! My name is Julia and this is my good friend Peter. We are both 19 years old and we live in a small town. In the weekdays we go to school trying to pass our subjects as smoothly as we can. However, when our classes are finished for the day we enjoy spending time with our friends, go to parties and just chill. In addition to this, Peter likes to skate and make music, and I personally enjoy playing guitar and go traveling abroad to experience other cultures and meet new people.

For us to be able to live eventful and exciting lives, we must work in the weekends and holidays. We both have part time jobs in a local cafe as a waiter and a waitress. Even though these jobs pay us a low wage, we are still broke half the time. At the moment we are trying to save up enough money to afford a trip to Italy. However, balancing our savings with our everyday use of money can be a challenge.

Next

Activities:

- Shop in the sales

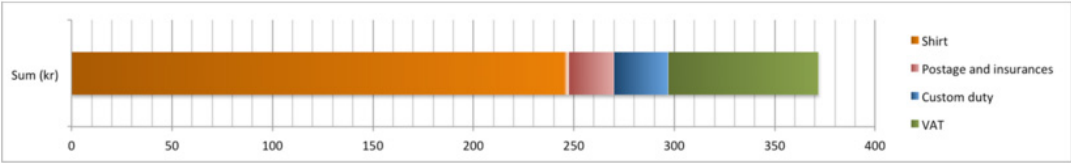
- Numeracy quiz
- Should we split the bill...?
- Online shopping
- Subscribe to a music streaming service
- On a budget saving for Rome...


Making ends meet - Private economy

Hjem

LUC
Making ends meet - Private economy
Lesson 3
Activity 4.4 (moderate)
Forhåndsvisning

The last charge to add is the VAT. In Norway, it is 25 per cent (%) for almost all commodities, including shirts. Without the VAT, the price of the shirt sums up to **297 kr**. The VAT is calculated after postage, insurances and Custom duty has been added.



The chart shows the accumulated costs, including the shirt, postage and insurances, Custom duty and VAT.

What is the final price for the shirt, including all additions?

Velg ett:

- ☐ 247.50 kr
- ☐ 270.00 kr
- ☐ 297.00 kr
- ☐ 371.25 kr

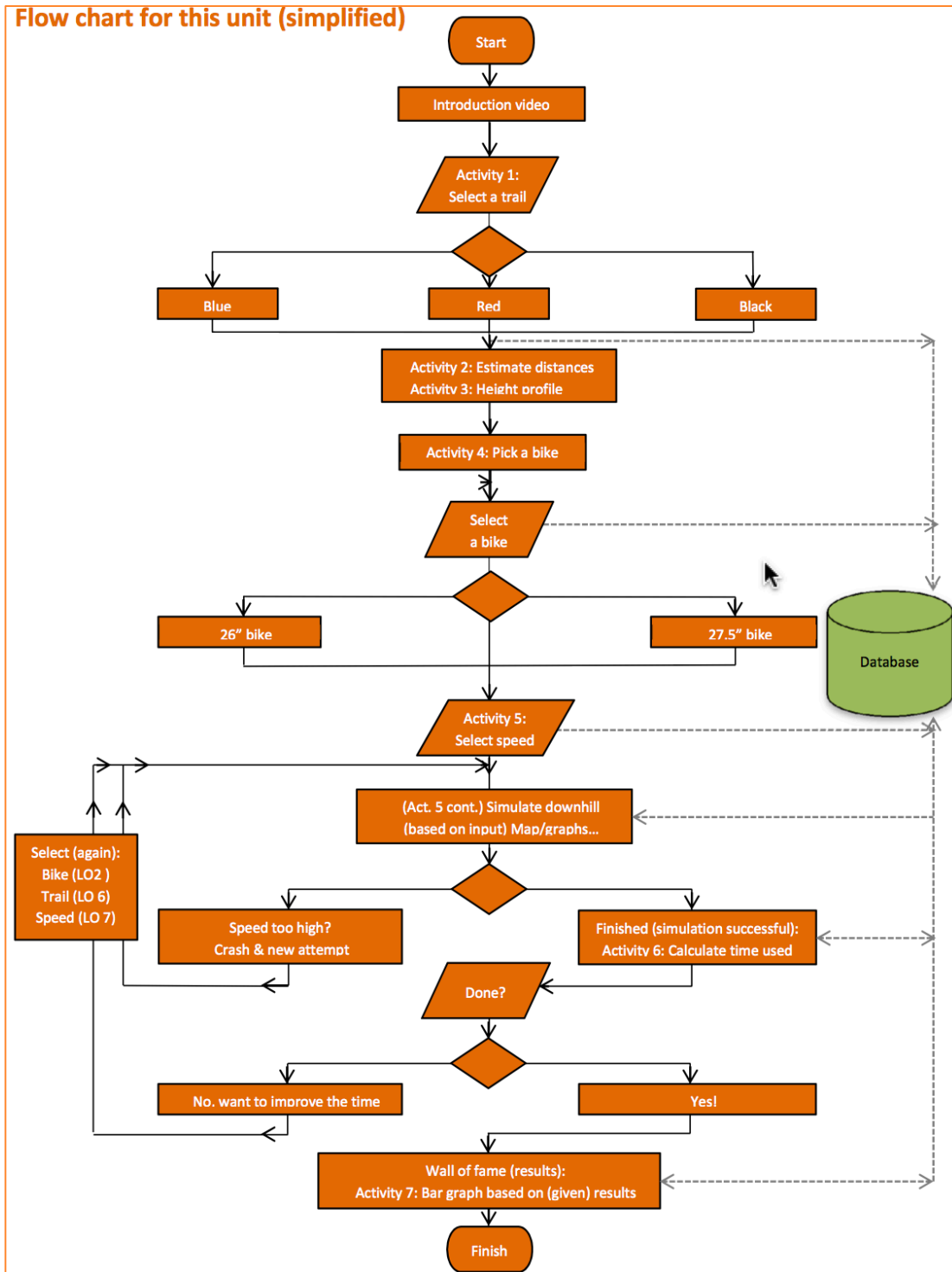
Course 04. Mountain biking in Olympic surroundings: How fast can you go downhill?

Aims: To develop numeracy literacy by first decide certain conditions and thereafter experience by simulation the outcome of these choices.

Synopsis: The context is Hafjell bike park (a 1994 Olympic resort), near Lillehammer, presented in an audiovisual introduction. The participants' challenge is to spend as little time as possible from the top to the bottom in a downhill bike simulation, by doing qualified and smart decisions about various sizes of wheels, trails (distance, risks, vertical drop) and speed. Based on their selections, which includes relevant math problems, a simulation of the resulting downhill biking and the finishing time will be presented using real video footage and maps.

Lessons:

- Estimate distances by reading a map
- Extract numbers from a graphical chart
- The relationship between diameter and circumference
- Calculation with time, length and speed
- Sort numbers in ascending order

Flow chart for this unit (simplified)

Activities:

- Select a trail
- Estimate distances
- Height profile
- Pick a bike: Wheel sizes
- Simulate downhill biking
- Calculate time used
- Wall of fame – results



The animation shows the two wheels rotating a complete turn along a number line. A complete turn is the same as the circumference of the wheel. The number line measures the distance in **centimeters**.

Not surprisingly, the smallest wheel (26") moves a shorter distance than the bigger wheel (27.5"). You can measure how long each wheel moves, as well as the difference, by checking the two wheels' end points on the number line.

You may also **calculate** the circumference. Do you remember the formula? It is **$C = \pi d$** .

- **C** is the circumference of an circle (wheel)
- **π** (pi) is approximately 3.14. Pi is a Greek letter, which has a particular meaning in Mathematics. It is a constant that express the ratio between the circumference of a circle and its diameter, independent of the size of the circle.
- **d** is the diameter of the circle

Read the number line or use the formula **$C = \pi d$** to decide what the circumference is for each wheel. This is the same as the length the wheel has moved in one, complete turn.

How far moves the smallest wheel in one turn? The smallest wheel (26") is the wheel above the ruler:

Select one:

- ☐ About 207 cm
- ☐ About 212 cm
- ☐ About 219 cm

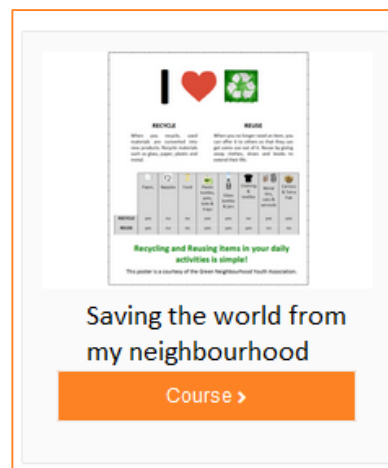
Course 05. Saving the world from my neighbourhood: Changing how I consume can change the world

Aims: to improve literacy skills such as to locate and retrieve information, make lexical and semantic inferences, understand the global meaning of a text, integrate and interpret, but also to gain knowledge about how to be a more conscious and active citizen regarding daily actions towards reduction of waste.

Synopsis: Lessons start with a short story or a concrete case. After a brief description of the main focus of the lesson, a set of relevant activities is proposed with different response format (multiple choice, open-ended, cloze, ordering activities).

Lessons:

- Information about how resources can be used efficiently
- Information about how to reduce waste
- Information about how to reuse objects
- Information about how objects are recycled
- Create an information poster about how to reduce/reuse/recycle



Activities:

- Complete the text with the missing words
- Interpret and discover the meaning of a phrase
- Relate the word "reuse" to other words
- Identify reusable objects
- Organize information and make it correspond to recycling process steps
- Identify materials that can be reused
- Identify materials that cannot be recycled or reused

Have a heading: Choose the main message and present it with a memorable title.

Fill in the middle:

a) Choose one or more images related to the main message and fill the poster.

b) Information you want the reader of the poster to receive, presented in short text.

Have a footer: Choose secondary information you want the reader of the poster to receive.

	Paper	Nappies	Food	Plastic bottles, pots, tubs & trays	Glass bottles & jars	Clothing & textiles	Metal tins, cans & aerosols	Cartons & Tetra Pak
RECYCLE	yes	no	no	yes	yes	no	yes	yes
REUSE	yes	no	no	yes	yes	yes	no	no

Recycling and Reusing items in your daily activities is simple!

This poster is a courtesy of the Green Neighbourhood Youth Association.

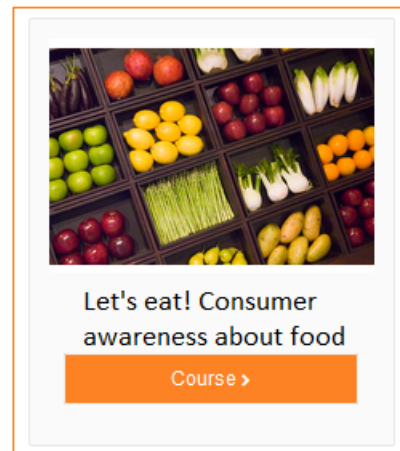
Course 06. Let's eat! Consumer awareness about food

Aims: to develop key literacy skills and problem solving in technology rich environments skills. Literacy skills focus on accessing and identify information, integrate and interpret parts of a text by establishing the relations between them. Problem solving in technology rich environments skills focus on using, acquiring and evaluating information, using digital technologies and recognizing critical elements in a given setting.

Synopsis: The course opens with a brief introduction raising awareness about the importance that food has in our lives, from the time we spend consuming, preparing or buying food. This is followed by activities that require the user to simulate interaction in online shopping environments, shopping for food and identifying and interpreting information about food.

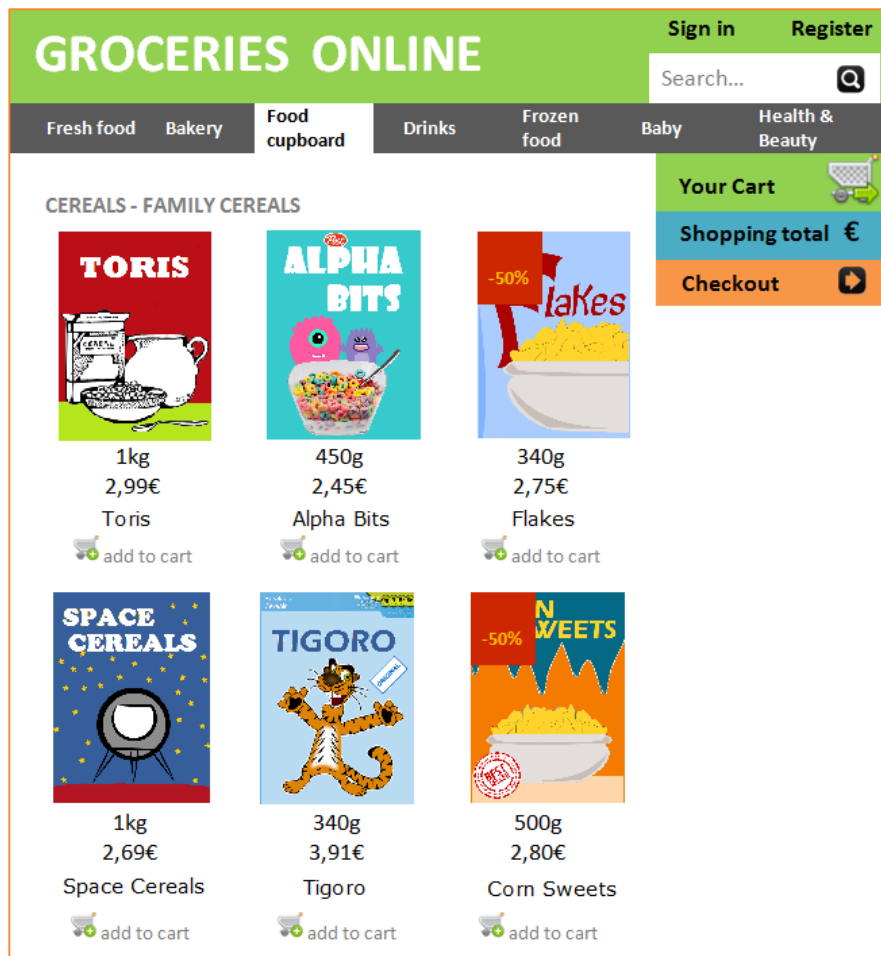
Lessons:

- Information to raise awareness about the importance that food has in our lives
- Making your own choices on food
- Information about how to read food labels
- Information about how to identify misleading labels
- Information about how to search and share information about food



Activities:

- Search for information and keep updates on new information using social networks.
- Sharing information through social networks is an effective way to reach a large number of people in a short period of time.
- How to share information on Facebook.
- Locate information in food labels.
- Compare information in food labels.
- Simulate shopping online and apply knowledge about how to read food labels, to buy the healthiest food.
- Simulate shopping online, locate and compare information.
- Access to discussion forums
- Evaluate the relevant information from a result of an internet search
- Share information by email.



Basic skills to be improved in low achievers

Changing demand for skills

The goals for Europe 2020 acknowledge that EU Member States have to implement policies that ensure a smart, sustainable and inclusive economic growth, in particular by giving importance to reducing the share number of young and young adults who have low basic skills, improve employability, social inclusion and personal fulfilment (Council of the European Union, 2010). Special attention is given to citizens from a disadvantaged background that have statistical lower performance levels in domains such as reading and writing properly, or those who constitute early leavers from education and training (Urban, 2012).

To reduce the share of young adults with low basic skills, Europe looks to the skills needed for the job market, that are being influenced by major changes in the employment sector, increasingly demanding on the analysis and transformation of information, thus highly dependent on computers and ICTs. In over half of all OECD countries, at least one-third of economic activity is concentrated in high-tech manufacturing, communications, finance, real estate and insurance (OECD, 2013a). This has created the need for key information-processing skills, for the highest levels of needed literacy and numeracy skills that have been reasonably stable.

Key skills

Literacy, numeracy and problem solving within technology-rich environments are the skills to be improved in technologically rich environment, in line with the skills defined in the survey of Adult skills (PIAAC) (OECD, 2013b), and are defined as follows:

- Literacy: “Literacy is defined as the ability to understand, evaluate, use and engage with *written texts* to participate in society, to achieve one’s goals, and to develop one’s knowledge and potential. Literacy encompasses a range of skills from the decoding of written words and sentences to the comprehension, interpretation, and evaluation of complex texts. It does not, however, involve the production of text.”
- Numeracy: “Numeracy is defined as the ability to access, use, interpret and communicate mathematical information and ideas in order to engage in and manage the mathematical demands of a range of situations in adult life. To this end, numeracy involves managing a situation or solving a problem in a real context, by responding to mathematical content/information/ideas represented in multiple ways.”
- Problem solving in technology-rich environments: “Problem solving in technology rich environments is defined as the ability to use digital technology, communication tools and networks to acquire and evaluate information, communicate with others and perform practical tasks. The assessment focuses on the abilities to solve problems for personal, work and civic purposes by setting up appropriate goals and plans, and accessing and making use of information through computers and computer networks.”

The numbers of key skills domain

Proficiency in literacy, numeracy and in managing information in digital environments leads to the proficiency in problem solving in digital environments, suggesting that low literacy may be the main cause of difficulty in the acquisition of basic ICT skills. The numbers of OECD PIAAC results for 2013 indicate that the proficiency in numeracy, in young and young adults (age 16-24) are on average at level 2 (in a scale from 1 to 5) and in literacy are on average at level 3. In most countries, younger adults have higher proficiency than their older adults counterparts in all three of the skills assessed. Regarding proficiency of problem solving in technology-rich environments, in all countries 16-24 year-olds reach higher average levels of proficiency than the older adults, having lower chances of having no prior computer experience, or failing the ICT core test (OECD, 2013b). Although, it is important to consider the heterogeneity of this group: to be digitally excluded or included is not determined by age or generation, but by the familiarity and experience using ICT (Brown, & Czerniewicz, 2010).

If skills are effectively developed and further used on the labour market by all, it can translate into better economic and social outcomes (OECD, 2013). Therefore, also as a citizenship imperative, it is important to reduce the proportion of low achiever students who struggle to master basic skills at age 15 (according to PISA) because they are likely to be held back in the future of job opportunities. This will reflect on the future of countries and economies.

Lifelong learning in the information age

To develop digital literacy and widen access to opportunities empowers a more integrated participation as active citizens, exercising rights, in lifelong education and training, amongst many others. This implies the need to learn how to make an adequate use of ICT for personal or social benefits, consolidating the roles as information consumers, and to stimulate new roles as information creators and/or creators of new tools (Tornero, 2004). Producing and actively consuming information (“producers” and “prosumers”) have been at the core of the many changes in education in the last two decades (Bruns, 2008; van Dijck, 2009; OECD, 2007). ICTs are being integrated into all levels of education and training, benefiting online learning environments and distance education, as well as more collaborative learning practices. More recently has been discussed the possibilities of emerging online learning initiatives - the Massive Open Online Courses (MOOC), pointing towards an attractive solution for students with diverse interests and backgrounds offering the possibility of learning any-time/anywhere by using course content asynchronously and unconstrained (DeBoer, Ho, Stump, Breslow, 2014), and covering all forms of online lifelong learning.

Who are the low achievers

In Europe more than one in five young adults between 16 and 24 years of age have low skills levels in literacy, numeracy, problem solving and the use of ICT. Boys are more likely to be in this category than girls, along with migrants. Adults will need basic skills in these areas as the labour market becomes more technology dependent. Across Europe low achievers are categorised by weak or interrupted engagement with education in the formal schooling sector. They risk failing to achieve minimum standards and as a consequence dropping out of schooling.

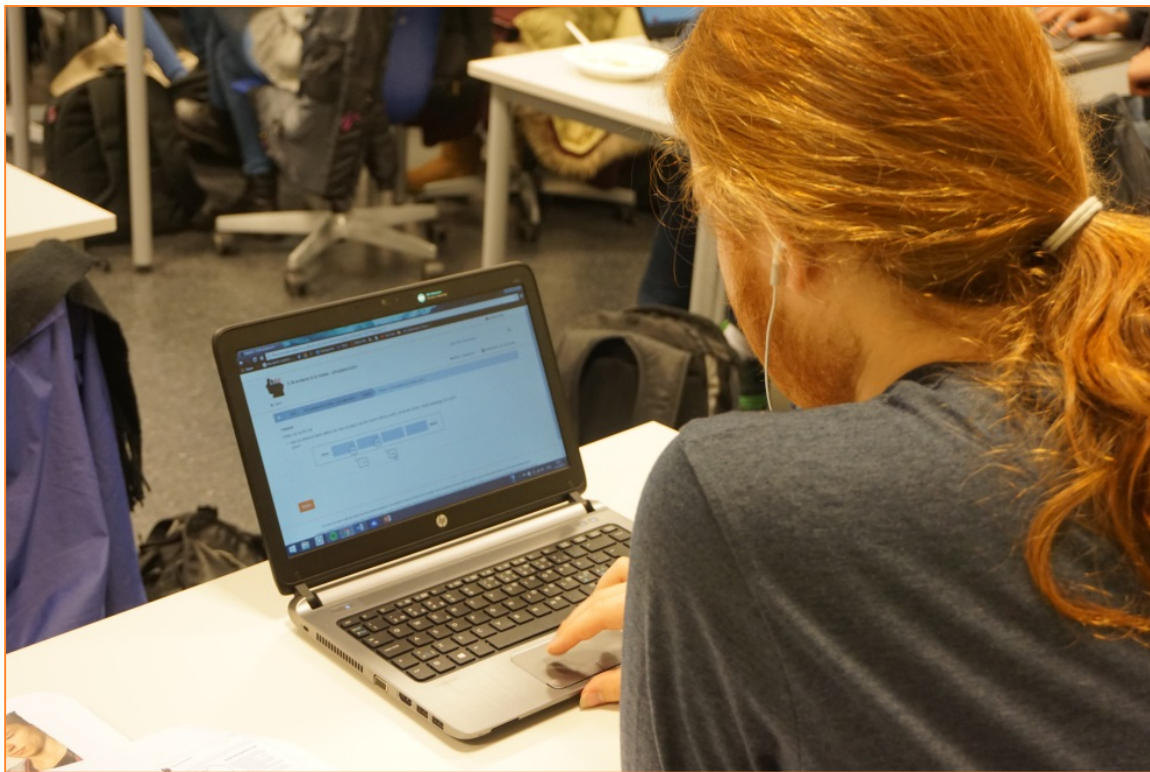


How to foster self-motivation

A key challenge and goal when working with low achievers is to foster self-motivation to learn. This entails a willingness to learn and to sustain the effort required. Low achievers have often experienced teachers and/or parents putting pressure on them to learn, but with limited jobs and career opportunities many have been reluctant to respond with engagement and enthusiasm. In the LIBE project we have developed a suite of 6 online and openly sourced courses. Each course presents a topic of universal appeal to youth, such as managing personal economy or concern with global conservation. Further, the courses are designed so that participants can experience increased self-esteem and a sense of mastery as they progress through each course.

Facilitating participation

In seeking to facilitate participation and self-motivation it is important that each person is regarded as unique. They have individual reasons for having not succeeded previously in developing skills in literacy, numeracy, ICT and problem solving. If time and the context permits, listening to their story will help them relax before embarking on the courses. It will make them feel safe and secure. It constitutes the first step in building self-esteem and confidence that they can succeed by their own efforts.



Secondly, it is important where possible to downplay competition between peers as they undertake the courses. Competition can lead to new disappointments and a loss of motivation to complete the courses. Sensitivity is however required, not all interaction with peers is negative. It can also be a source of support and advice, which reinforces both learning and the desire to continue learning.

How to increase learning by using effective feedback

In LIBE, electronic media and digital technology, such as laptops, tablets or smartphones, are used to deliver learning content and instruction. LIBE uses current technology to support learning. This makes time- and place-independent learning possible and can include multimedia to help students. Since each student can do the LIBE courses individually, assessment and feedback can be tailored to the individual user's needs. In the context of LIBE, feedback is provided to the students about how they can solve the tasks. This not only facilitates learning, but also increases the motivation. Besides, teachers can use the outcomes of the LIBE courses to adapt their instruction and to help students to decide on how to proceed their learning. When the LIBE courses were designed, we checked the literature on the best way to provide feedback to low achieving students.

What did we learn from the literature

The first thing we learned is that elaborate and immediate feedback works best. Elaborate feedback means that it is explained what went wrong or how you can solve the tasks. When it comes to timing of the feedback, immediate feedback turned out to be most effective.

With respect to the kind of feedback, it was mentioned in the literature that praise and advice on preferred activities work well in group situations, whereas providing information about the process worked better in individual situations. It is however important to note that the feedback praising young under-achievers, such as those in the LIBE project, can be a significant springboard for motivation towards learning and task completion. Besides, it also relates to more persistence, increased efforts, and better achievement. This finding again points to the importance of boosting/maintaining the self-confidence of the learners participating in the LIBE project's virtual learning environment.

For the matter of maintaining motivation, it seems important to keep feedback concise to prevent unnecessary feedback (e.g. overly directive feedback or too much detail) and feedback that does not match the learner's level or competencies.

Finally, we found that the possibility to try tasks multiple times is especially beneficial to lower achieving learners as it allows them more time to go through basic concepts and reduces stress.

Implications for LIBE

Based on these findings we formulated a number of points of attention for the LIBE courses:

- Provide hints, aiming to assist in understanding why the answer was incorrect.
- Include praise to keep young low achievers motivated towards learning and task completion and boost their self-confidence.
- Give learners the possibility to try a task multiple times in order to allow them more time to go through basic concepts and to reduce stress.
- Time the feedback in an immediate way. This means that in the LIBE virtual learning environment feedback should be automated.

- Monitor the learner's progress through the virtual learning environment in order to adapt the learning path.
- Keep feedback concise in order to prevent demotivation by unnecessary feedback (e.g. overly directive feedback or too much detail). This can be done by 'cutting' the feedback in several portions of information of which more elaborated information can appear on the learner's demand. Both information used in feedback on individual responses and feedback about their (general) performance should be clear and meaningful.
- Keep the courses short to maintain the learner's attention. Rather use multiple short tests instead of one long one.
- Adapt the test difficulty to the individual learner in order to maintain the learner's attention, motivation and self-confidence.

LIBE Saving the world from my neighbourhood - Chan...

Home

UPORTO Saving the world from my neighbourhood - Changing how I consume can change the world LESSON 1: INTRODUCTIO

Activity 1.1: Let's get rid of the useless stuff Preview

We have already talked about 2 important ideas that you will be working with to create the informative posters.
Did you understand the global meaning of the text? Complete the following sentences.

Every person contributes to the conservation and well-being of their neighbourhood and the planet when ...

Select one:

- ☐ they are concerned about buying more new objects.
- ☐ they use the main methods "Reduce, Reuse, Recycle".
- ☐ don't use natural resources even if they need to.
- ☒ they only buy cheap objects.

Check

That wasn't it!

*Every person can contribute to the conservation and well-being of the planet, the city and their neighbourhood, by simply using the main methods of "Reducing, Reusing and Recycling"— plus, living by this idea often helps save money.

Try again

How to use it in practice

In designing the LIBE courses, we attempted to optimize the learning experience of low achieving students. LIBE is an online platform for individual learning. Therefore, most of the feedback is automated. LIBE consists of several short courses to increase motivation. Besides, personalized learning paths and the option of multiple attempts with hints in case of incorrect responses were implemented. Finally, to optimize the learning results, it is advised to discuss the results individually or as a group to increase the endurance of the LIBE experience.

Overview of the LIBE VLE

The LIBE VLE has its basis in Moodle. It consists of a basic Moodle installation, together with additional functionality provided by several plug-ins which are listed in the following table.

Plug-in Name	Description
Adaptive Quiz	Allows development of activities that are adaptive tests, comprised of questions selected from a question bank and tagged with a difficulty score. The questions are chosen to match the estimated ability level of the current test-taker. https://github.com/middlebury/moodle-mod_adaptivequiz
Questionnaire	Allows teachers to create a wide range of questions in order to obtain students' feedback on a course, activity, or the VLE itself https://moodle.org/plugins/view.php?plugin=mod_questionnaire
SWF	Useful for deploying M3U (playlists), SMIL, XML, and MPEG-7 multimedia learning interactions https://moodle.org/plugins/view.php?plugin=mod_swf
Authentication: Google/Facebook/Github/Linkedin/Windows authentication	This plugin adds the "Sign-in with Google / Facebook / Github / Linkedin / Windows Live / VK / Battle.net" buttons onto the login page. https://moodle.org/plugins/view.php?plugin=auth_googleoauth2
Restriction by language	This makes it easy to show a resource developed in a particular language only to students who speak that language. https://moodle.org/plugins/pluginversions.php?plugin=availability_language
Configurable Reports	This block is a Moodle custom reports builder. It allows the creation of custom reports without requiring knowledge of SQL. It is a tool suitable for administrators and teachers. https://moodle.org/plugins/view.php?plugin=block_configurable_reports
Sharing Cart	This is a block that enables sharing of Moodle content (resources, activities) between multiple courses. https://moodle.org/plugins/view.php?plugin=block_sharing_cart
Generico	This is a simple filter for creating templates of code snippets and text that can be inserted into Moodle text areas. https://moodle.org/plugins/pluginversions.php?plugin=filter_generico
Personalisation	Personalisation features developed specifically for the LIBE VLE.
Drag and drop into text	A drag and drop question type where missing words need to be dragged into gaps in a paragraph of text. https://moodle.org/plugins/view.php?plugin=qtype_ddwtos
Drag and drop markers	Allows the student to drag markers to indicate key features in an image. https://moodle.org/plugins/view.php?plugin=qtype_ddmarker
Drag-and-Drop matching	Question type similar to the matching question type but with a drag and drop interface for the students. https://moodle.org/plugins/view.php?plugin=qtype_ddmatch

Drag and drop onto image	Allows use of text and / or images as drag items onto defined drop zones on a background image. https://moodle.org/plugins/view.php?plugin=qtype_ddimageortext
Gapfill Question	A cloze question type with very simple question creation syntax. Supports drag drop, dropdowns and gapfill questions https://moodle.org/plugins/view/qtype_gapfill
Ordering	A question type that displays several short sentences in a random order, which are to be dragged into the correct sequential order. https://moodle.org/plugins/view.php?plugin=qtype_ordering
Select missing words	A question type that allows students to complete a paragraph of text by selecting the missing words using drop-down menus. https://moodle.org/plugins/view.php?plugin=qtype_gapselect
BCU	This is the theme from the Moodle site of Birmingham City University. It allows for extensive customisation and provides some features that help improve Moodle's usability. https://moodle.org/plugins/pluginversions.php?plugin=theme_bcu
Bootstrap	This is a Moodle theme based on the Bootstrap CSS framework. It has minimal styling and can be used to create User Experience optimized themes. https://moodle.org/plugins/view/theme_bootstrap
TinyMCE: Cloze Editor	An interface that integrates with Moodle's existing HTML editor (HTMLArea in 1.9 and TinyMCE in 2.x) to support teachers in creating Cloze (embedded answers) questions in the GIFT syntax. It can also read and edit existing Cloze items. https://moodle.org/plugins/view.php?plugin=tinymce_clozeeditor

LIBE uses the BCU (Birmingham City University) theme because this provides LIBE course designers with options to select the preferred language, the visibility of blocks on the right hand side of the web pages (e.g. for Administration), and full screen mode. The BCU theme was modified for the purposes of LIBE using custom CSS to match the branding of the LIBE project. In order to support specific LIBE course needs, the functionality of the courses was also enriched with additional features, using JavaScript. The following figure shows the front page of the LIBE VLE.

You are not logged in. (Log in)

LiBE Virtual Learning Environment

Search courses

English (en) Show blocks Full screen

Available courses



Å få endene til å møtes - privatø...

Course >



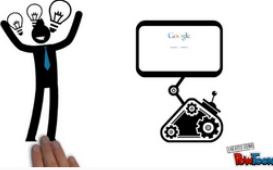
Terrengsykling i olympiske omgi...

Course >



Come scrivere un curriculum

Course >



Basta chiederel!

Course >



Salvar o mundo a partir do meu ...

Course >



Vamos comer! Consciência sobr...

Course >

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LIBE courses are organised into Topic Sections that the course designer can give titles to. Each Topic Section consists of activities, resources and labels. LIBE activities may reflect one or more aspects of the typical cycle of inquiry-based learning:

Ask → Investigate → Create → Discuss → Reflect

The LIBE VLE supports all of these Inquiry Cycle phases. Within the currently implemented six LIBE courses, there are activities that enable students to Ask, Investigate and Reflect. Future LIBE course development will be able to take advantage of the LIBE VLE's support for the other phases. The following figure shows parts of LIBE courses that illustrate the Ask and Investigate phases.

LIBE Everything you want is out there waiting for you!

Search courses

Home English (en) Show blocks Full screen

UNIFORM32 Lesson 3: Judge a man by his questions rather than his answers Did you know...

Did you know...

Sabrina is doing a crossword puzzle and she does not know the answer to this question: which was **Napoleon's favourite food**? This can be an easy task to solve having internet at your disposal. You can search for Napoleon favourite food and discover that Napoleon was fond of chicken, the **Chicken Marengo**. She is happy because she can solve the puzzle, but probably she will forget this information in the next couple of minutes, not only because she was doing crosswords just for fun, but also because she did not actually understand what the information means

Remember that information that are not completely understood can be easily forgotten!

Even though this appears to be nothing more than a curiosity, every piece of information has its history and secrets to be revealed. What can really have made a difference, it is not simply finding the answers, but **posing the right questions** to a search engine.

For every search you make in the Internet you can ask a set of questions such as: **who, what, where, when, how and why**. These were the kind of questions that journalists usually adopt to describe an event to be reported. We can borrow those and use them in case of a lack of imagination in creating questions.

LIBE Let's eat! Consumer awareness about food

Search courses

Home English (en) Show blocks Full screen

UNIFORM32 AIE YOU MAKING YOUR OWN CHOICES ON FOOD? Introduction

Fruit and vegetables are an essential part of our everyday meals. Therefore, before buying them, it's important to be informed. When you go to big supermarkets to buy fruits and vegetables, in most cases the same variety of fruits and vegetables are presented to the consumer all year round, and all having the same format and size. Have you ever questioned why?

A close friend who is immigrating to the UK, to work, sent you an email asking about the seasonal food he should eat between April and May, the time he will move there. To find the correct information to give him, you searched the internet with the key sentence below:

seasonal vegetables and fruits in the uk

Creating a course in the LIBE VLE

The process of creating a course in LIBE follows that of Moodle. Course creators need to create a category for their course and then add the course to this category. Alternatively, new courses can be added to existing categories. The Moodle VLE requires all of the fields shown in the following figures to be filled in.

LIBE Virtual Learning Environment

Search courses

Home English (en) Hide blocks Full screen

Site administration Courses Manage courses and categories Add a new course

Add a new course

Administration

Category: UNIFORM32

Category ID number

Description

Paragraph

Start and design Save and finish Cancel

There are required fields in this form marked *

LIBE Virtual Learning Environment

Search courses

Home English (en) Hide blocks Full screen

Site administration Courses Add a category

Add new category

Parent category

Category name*

Category ID number

Description

Paragraph

Path p

Create category Cancel

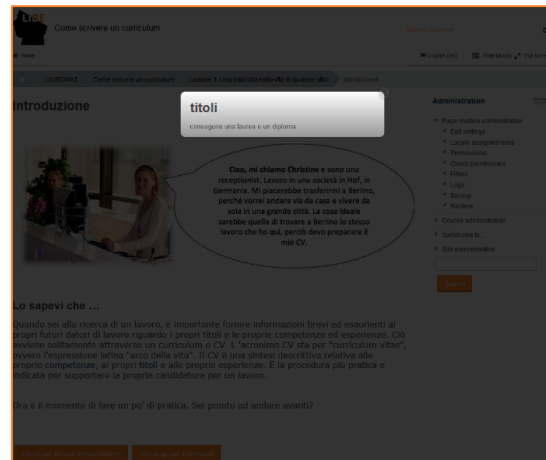
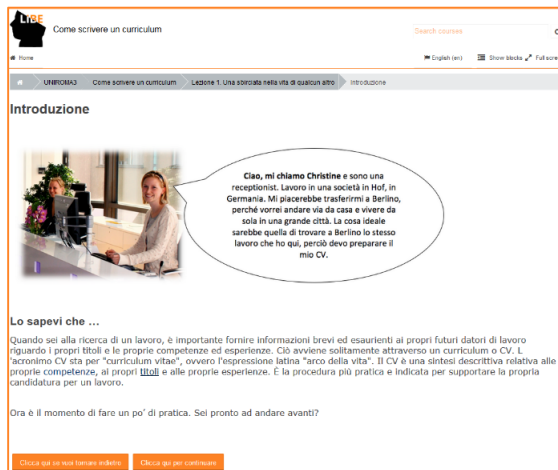
Personalising your course

A Personalisation plug-in is being developed specifically for LIBE VLE to process rules governing the following kinds of personalisations:

- Selection, sequencing and branching of activities

- Personalised provision of hints
- Personalised provision of word expansions (explanations)

The figures below show an example of a word expansion. Words that should be expanded need be defined as hyperlinks by the course creator. The explanations themselves need to be entered into a table called *Glossary* in the LIBE database. This can be accomplished in a variety of ways. For the non-technical user we recommend using *Adminer*, a full-featured database management tool written in PHP that consists of a single file ready to deploy to the target server.



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