



## Learning by research; discovering and spreading

Live eLearn  
blended experiential learning for adults  
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# Content

Context	3
Achievements	4
Generic skills and competences	4
ICT-based skills and competences	4
Digital competences	5
Requirements	5
Development	7
Preparation	7
Progress sessions	7
Spreading	8
Suggestions	9
Study Cases	10
Local history and arts and Final degree Research	10
Writing workshop	13

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## Context

Learning by research could be understood as a similar methodology as learning by doing, commonly used educational methodology when trainers aim students to learn by being involved directly on their educational process from a very practical perspective. The biggest difference relies that on learning by research the learner has the main responsibility on the learning process. That is; he/she can modulate the aims of the activity and organize the activities to reach those aims. Of course, those aims will be framed on the main course content and objectives, also the activities that he/she performs will be guided by the trainer, but the degree of independence is very high.

Here we are not proposing learner to execute a formal research project or thesis; we focus on the fact that they have some degrees of freedom, the benefits of this learning experience are huge, but thanks to technology impact to the own learner, classmates and community, potentiates back to the learner in a new and very valuable experiences.

Following you can observe the biggest benefits on applying this method on your educational activities.

Dimension	Characteristic	Benefit
Self-direction	Under the topic and framework of the course or subject that the learner is enrolled, he/she can establish a more precise aim to research, it can be about understanding a certain issue, linking the topic of the course with local context (as arts, history, sociology) or events (historical or present).	The learner will be able to study and discover more information about things he/she is interested keeping motivated during all the learning process. That also affects his/her own perception of usefulness and valuable.
Internet as a main source	The source of information for the learner will be through the Internet; searching, contacting people, etc. Of course, other sources of information could be used (library, interviews...) but the it is expected that information will be gathered	it is expected to increasing the skills and capacities of the learner for managing ICT tools and creating networks among same-interest people.

	and managed in electronic ways	
Spread	The information discovered will be disseminated using again Internet services as social networks or publishing sites	It is intentional to gather feedback, suggestions and corrections

## Achievements

By the development of this educational methodology we expect the learner to improve following soft skills and additional digital competences in addition to the skills, competences and knowledge that this methodology is going to be promoted thanks to your own course of specific subject.

### Generic skills and competences

- Self-direction and initiative; within the frame of the subject and the main objectives of the course, the learner has to decide and define better his/her own learning objectives, motivate them and plan the next actions and milestones to reach that aims.
- Responsibility, as the learner directs its own research, plan and organizes his/her learning and takes further actions based on the guidance of the trainer, but with some degree of freedom.
- Opportunity; that is the capacity to identify key aspects of the topic the learner is researching under different kind of criteria: interest, innovative aspect, difficulty to get more information, etc.
- Problem solving; as the learner has to plan and manage the steps for getting the information, contacting people, trying to find alternative sources of information, supporting data, etc.

### ICT-based skills and competences

- Search use: use of search engines, but also the capacity analyze content, verify the source of information and understand the context of the information provided.
- Communication tools: as it is expected the learner to use mainly ICT media (as email, social networks) to get more information about the topic he/she is

researching. Also the communication with other classmates and the trainer will be blended (face-to face and ICT-mediated).

- Dissemination tools: as the use of blogs or other media (as video channels) depending on the interest of the learner on the media to use

## Digital competences

- Browsing, searching and filtering data, information and digital content: as the learner will have to search information on the Internet, follow research lines and then go deeper to locate more information.
- Evaluating data, information and digital content. Based on own needs and interests, but also the quality of the information found, learners will have to evaluate information found. The learner capacity on this skill will be increase thanks to the innate activity of research, now applied to digital information.
- Managing data, information and digital content. This skill will be potentiated by the need of the learner to gather, store, organize and later retrieve the information while he/she is going to reach the research aims.
- Sharing through digital technologies; that is using from a very practical perspective based on a own need a online service for results publishing. He/she will not only use that tool, but also will discover the possible effects of information publishing, as getting feedback, comments or new links of information provided by other people, thus creating new networks among interested people.

## Requirements

The learn by research method can be applied to any course or subject as far as it is possible to provide some freedom to the students to keep learning on any aspect or line they wish. No matter if the course is about human sciences as arts or history, of health, economics, environment, sociology, philosophy, etc. as far as there is some opportunity to link the course lessons with other facts, as it can be local arts or local history, new innovations, discoveries, challenges, risks, or dilemmas that could be explored and explained further.

This is not a proper research work neither a thesis and the learners should not be experts on that topic. Instead of “research” we could call it a “project”, where the research is only a methodology to reach certain aims, which would be delivered on the final project, but hopefully, extended furthermore as we envisage this methodology not to end once the report is written, but published. The topic to choose should be sufficiently open to make possible learners to provide some information by their own, as information they can gather from other trainers, colleagues or people that could know more, and of

course, to find some information on the internet. Usually, the precise topic to choose is related to the own life experience of the learner, he/she feel interested or wanted to know more.

Learners should be aware that this is not a work about finding and copying information on the Internet, but to link some of the course content, with other information on the internet and explore new perspectives or knowledge even from a subjective perspective, but trying to motivate all those ideas.

Therefore, the first requirement is to create this environment in the classroom: this activity is not about doing a report at home, but about to choose one topic learner wish to know more and to decide how he/she would like to drive it. This is very difficult, fortunately there will not any wrong direction, as far as it well motivated and in case we regret it, everybody would be able to change. Support from the trainer and other classmates is important during the first steps of this activity.

- Propose the work as a project, where they have put milestones and objectives. Not too strict, flexibility is a virtue
- Create a nice and collaborative working environment among all the classmates
- Focus on the process, not on the result.

The second requirement makes reference to the technical skills and capacities, everybody should be able to search and surf on the internet and manage well writing. One advantage is that this activity does not require to be expert on searching and surfing, as far as the student have basic skills he/she will be able to start to work in the activity and will practice while learning. Face to face sessions with other students, or ICT courses will greatly be positive. The biggest benefit of having ICT-courses while performing this activity is that the learners will be able to ask and practice for real needs and not exercises not in context.

- Computer with internet connection
- Smartphone to make photos or videos (in case the research involves some field work)
- Searching and surfing on the internet skills
- Mail account and receive-send skills
- Word processor skills
- Organize folder and files skills (to store the images and videos)

Learners have to have sufficient support during the project otherwise they would be lost and demotivated, tutoring or guidance of the trainer should be provided. Also groups of learners to explain each other how things are going will be very useful, getting ideas from other projects and also support.

Finally, learners will be able to publish the results of their findings. That can be in a varied way. It can be using a blog, a YouTube channel, google sites, or in any other platform that the school provides. It must be an online platform that allows to receive feedback, as this learning methodology is intended also to produce certain impact once the content is published.

- Learners should be able to publish their findings in an online media (as blog, or other platform)

- School should have some blog or other platform to publish their learners' contributions. If it is not possible, then it can be a place that learners have access. Nowadays there are available a lot of blog or publishing services free of cost, it would be convenient all the classroom to choose the same platform, it will provide a sense of community
- If students do not have enough skills for accessing and publish their texts and photos, there can be one person responsible to receive and publish it.

## Development

### Preparation

The learning by research methodology should be framed in a subject that the students are currently enrolled. That course should provide some background, as it can be:

1. Arts or history of certain period of age
2. Social facts; related to economy, globalization, environmental challenges
3. Philosophy; ethical issues, life, generations
4. Innovations; on technology, medicine,

For the previous topics, and after a context is provided, then trainer should promote further discussion and deeper review, as for example:

1. Local arts (in nearby museums), singular buildings or monuments. Trying to uncover information that because it is too local it does not exist on other sources as Wikipedia or museums.
2. Current news, challenges, risks, etc, that we should try better understanding. But without forcing a solution as it could never exist
3. Personal experiences that can now be better focused and explained so others can benefit of it.
4. On any topic the learner wishes and wants to explain and show others

Previous list is provided as an example, not exhaustive, the important aspect is that the learner should choose the precise project approach, mix it with their experience and be boosted by their motivation.

### Progress sessions

The course could continue its development while some session (usually one per month) is focused on revising the progress of the project. Instead of proposing individual intuition, it is nice for learners to explain to others their progress, worries, and challenges they find on the project, so they can get information and support from others.

This process can last 3-4 months.

If the college has ICT-courses, learners will be invited to attend so they will get support from the ICT trainer for using searcher and other internet services. This is very convenient as this ICT courses will be now not only user-centered, but also need-centered, and learners will be able to practice with an aim.

If necessary monthly sessions can be more frequent if the learners need more guidance, but it is important to provide them enough freedom to discover by themselves new facts, points of view, other stories or even new people.

Discovery is the great purpose of this process: something that is discovered imprints in our life experience very positively and helps to remind other aspects of our learning (the theory but also how we learnt it).

It is expected also to create new links of interest between new content that is discovered. This is based on the fact that learners are searching for things they feel interest or they like, so it is expected that when they find new content, other related topics and even other people interested on the same topics.

## Spreading

One commitment the students should accept once they enroll on a course about for learning about certain topic is that all that knowledge should never be kept and locked but shared and spread. This principle is related with the objective of becoming active learners, not mere receptors of knowledge, but builders. As a conclusion, the knowledge they gained should be deployed in an online platform for others benefit of it, with the huge advantage that after they publish that information, learning will continue by the feedback of other people.

This would be the proposed process:

- Explain your learners how important is to be present in the network society, the concepts of open knowledge and licensing. Use other examples of websites of people (as blogs) that explain things they consider important
- Let the learners choose the format (negotiate with them the best option): it can be publishing a page of information, a PDF, video or in multiple files, as in a diary that they could share while they keep researching and finding things to share. In this last case a blog or YouTube channel is the best way to implement a log.
- Use time of the course so they can share the internet address of their content with other colleagues, while they can see other colleagues' publication and comment and provide feedback.
- Review periodically the website, and if they found any comment, it is good students to reply those comments
- Help students to share the address of their websites in their own social networks. That will increase self-esteem and recognition to others.

Finally, encourage learners to keep working and studying on that subject, keeping increasing the content of their publication and keep in contact with any person interested once the course finishes.

## Suggestions

Following are suggestions to increase the impact of the learning activity

- If the course is about history, arts, sociological fact, or any other topic that we have the opportunity to visit in your city or know more (as a singular building, museum, botanical garden, relevant person....) include that as an extra academic activity. Focus on the specific topics that any of your student is researching.
- Once the course finishes, with the aim that students gain protagonism and relevance, you can propose them to make a short presentation to their colleagues or even to the rest of the members of the college. That will be helpful for them to gain protagonism, and increase impact on the rest of the community.

## Study Cases

### Local history and arts and Final degree Research

This workshop was part of the History and Arts course in the Senior Citizens' University of Castellón, where there is specific content that deals with history, singular local buildings and regional arts (ceramics, decoration, paintings, etc.).

During the first sessions of the History and Arts course, the trainer introduces the concepts as it could be any ordinary course, but also introduces how the next sessions will be developed. And it is done in two ways:

- Raising the interests of the learners on specific things, encouraging them to explain why they like certain pieces of arts or history of their town
- Introducing a guided methodology that integrates ICT. That is a course that teaches the use of Power Point, Word and Searching, but applying to the previous arts aims.

A trainer during the course introduce all those concepts, showing some examples that can be visited by the students. Trainer use a lot of graphical resources as photos, but also other resources. Those resources are directly related to the samples (as buildings or artists) or in other cases, to the context that art was originated (as valencian Gothic, Romanesque, etc.), or the historical period that influenced that kind or arts.



Students are encouraged (individually or in groups) to focus on some specific aspect of their interests. It can be anything as far as it is related to the course.

As they are free to choose not only the topic but also the approach, they have first to select what they want to research and in which direction. They are not required to perform a scientific paper, but it is expected to be somehow original (not copying and pasting, but comparing, relating, putting things in their context, etc.).

Once the report is finished, students are encouraged to present their work to the other classmates:



*Students in their face-to-face classroom, during the course*



*After presentation, work is published in <https://bibliotecavirtualesenior.es/>*

Thanks to this activity, students that present:

- They go deeper in the topics they like or enjoy.
- They can share their findings with the classmates, and increase their motivation and self-esteem.

Works are published in the Senior Virtual Library: [BibliotecaVirtualSenior](https://bibliotecavirtualesenior.es/), which makes a greater impact now with following benefits:

- Other citizens from their town (as families, friends, etc.) can read their work.
- Impact on the student thanks to friends and relatives.
- Impact on the student thanks to new information: a friend who knows about the subject can add more information and the student can continue learning.
- The student learns and becomes aware of how the knowledge society works, where nowadays information is created and transmitted.

- Information lasts and is now easy to disseminate and easy to find.
- A family member reads the text and transcends the knowledge beyond classroom exposure with peers.
- It is a means of dissemination that can reach anywhere in the world.
- By reading the work, constructive criticism can be made, so that it can help to improve and to have a broader vision.
- Learning and understanding through the comments provided by experts in the field who have read the work.



### *Presentation of Final Degree in Human and Social Sciences*

Other variation of this kind for research work is developed when students reach the third year of the Degree in Human and Social Sciences, they have the option of carrying out a final degree Research. Also, it has the same structure like the case study Local history or Arts, but without any topic definite, the focus is now on the research process; at the beginning of the course they have an introductory session about how to research, how to look information from reliable sources.

These are the different steps:

- Project planning (choice of topic and assignment of tutor)
- Searching for and locating sources of information.
- Structure of the project
- Writing the text
- Final Revision
- Presentation

In this way the students have a project plan, with the corresponding deadlines for submission to the tutor and finally the presentation. In order to carry out the research, they must search for and locate information from reliable sources, noting all records in the Bibliography.

The project must have a structure, with a table of contents, introduction, main body of the work, conclusion and bibliography, as well as acknowledgements.

The text should be carefully written, citing the corresponding authors or researchers. The first document is a draft, which should be improved after the tutor's corrections and improvements to be made.

Subsequently, a final revision will be carried out. Once the work has been finalized, a public presentation will be made using Power point, it is a public event attended by the tutors and teachers, and also classmates and family members. A summary of the work in word format can also be submitted to the journal *Renaixement* published by the Senior Citizens' University of the University Jaume I of Castellón, Spain.

Exactly, in the last sessions of the course, students must present their work to the other classmates, focusing on the things they more liked or surprised. Finally, the report is published online in the Senior Virtual Library: <https://bibliotecavirtualsenior.es>

## Writing workshop

Students carry out various subjects in their Senior Degree studies in Human and Social Sciences. One of the subjects in which they are in the classroom, then do their assignments on the computer and finally share them on a blog, is the Writing Workshop subject.

To be able to write in an effective way and communicate in the mother tongue is considered a key competence. No matter the topic, as in this course, the main aim is to enable the student to communicate ideas effectively in writing and to be able to:

- Construct an objective, based on the idea that the learner want to transmit and the media that will be published
- Find, search or research information that could be used as background for the message to be transmitted
- Build a coherent message, making possible by this way an effective communication
- Accept from a constructive way, any critic done to his/her text

There are many advantages of writing, of course the students previously with the theoretical classes have the previous knowledge to put it into practice, and also:

- Promotes the association of ideas and logical reasoning.
- Improves the ability to concentrate.
- Enriches learning.
- Activates memory.
- Relaxes, prevents anxiety and combats stress.
- Encourages creativity and helps to make dreams come true.
- Encourages perseverance.
- Technology is used to make the article available in digital format on the blog and previously to correct it.



Teaching and later publication at  
<https://universidadparamayores.wordpress.com/>

Finally the articles are published in a Blog, before this all the texts are <https://universidadparamayores.wordpress.com/>

It is necessary to remark that the only fact that the text is going to be published online and to be read by other people changes the perspective of the writing process completely. Previously, this course, the writing was done in paper, and only the trainer and other close classmates could read other classmates texts. Now, as everybody can read them, learners:

- Take more care about the topic they want to write about, and try to find some original, distinctive or creative point that could stand out from other classmates (this reinforce a lot the creative skills)
- Writing is not done to oneself only, but to the world. Families, friends, and even unknown people will be able to read and give the feedback. Thanks to this, texts are reviewed very carefully, even by friends before publishing (as if in a peer-review process)
- There is an increased self-stem perception, as Google can find their texts, and also their names. That also increase the digital identity, being proud of Google finding them on the Internet.
- Learners acquire also Web 2.0 competences from a very practical way: creating and receiving feedback, sharing their creations in social networks and seeing the impact they have.
- Finally, other friends and families, get aware of their learning process, breaking ageing stereotypes.