

Special Article - Adult Education

Engaging Low-Skilled Adults in Online Participatory Learning

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Abstract

Participatory learning and online learning are increasingly appealing as pedagogical approaches that can positively affect learners. Participatory learning engages students as active participants in the full educational program, including homework and exercises, whilst online learning offers tools that facilitate learners' collaboration and peer evaluation, minimizing student and instructor overhead in the conduction of courses.

This paper reports on EscAIADE, a two-year EU-funded project initiated at the end of 2015, which focuses on the education of low-skilled adults through participatory online non-formal and informal learning.

Some results of the first phase of the project (a survey conducted in the five European countries participating in the project, namely: Latvia, Italy, Poland, Greece, and Spain) are presented. Data confirmed that low-skilled adult learners are not a homogenous class and that professional improvement is the main factor influencing their motivation to learn. These aspects have been useful for the preparation of the online participatory learning experiment that will be realized in the second phase of the project.

The main aspects of the phase two experimental training are also illustrated.

Keywords: Adult education; Adult learning; Participatory learning; Online learning

Introduction

Many researchers engaged in social philosophical analyze have defined contemporary society as an on-going risk society [1,2] that is increasingly leading to poverty and social exclusion among vulnerable adults [3]. They blame globalization, individualization, privatization, and technological changes for being responsible for the increasing rates of unemployment and poverty and, consequently, the social exclusion of vulnerable adults [4,5]. Two factors are often put in relation: the growing numbers of vulnerable adults and the high level of illiteracy in industrialized countries [6,7].

It is universally argued that education and lifelong learning are the main keys for reducing unemployment, poverty, and social exclusion [8]. In fact, there is a broad consensus that technology heavily impacts on the labor force in the contemporary world, and that the average job is more skilled today than it used to be in the past. Accordingly, investing in education is considered to be crucial for combating unemployment and reversing social inequality.

However, many pessimistic opinions about the threats that are overwhelming our society are based on overly simplistic political assumptions, rather than on empirical evidence. As a consequence, the solutions devised for real problems, e.g. those concerning the education of low-skilled adults, might be unsuitable or even inefficacious. Indeed, low-skilled adult education presents multifarious facets. In this regard, it has been observed that the low basic-skills level of adults is a complex issue, which, at least for now, has neither straightforward causes nor straightforward solutions [9].

Who really are low-skilled adults? We can only affirm that they are an inhomogeneous group encompassing people of different age classes and different backgrounds. These factors make it particularly challenging to design successful educational interventions. In addition, linguistic barriers and national legislation restrictions may lead adults towards a low-skilled status, as well as lead to the diffusion of computer-based applications. In particular, new technologies have created two distinct groups of low-skilled adults. The first is formed by those whose tasks are readily computerized since they follow precise and well-defined procedures, such as bookkeeping, clerical work, repetitive production, and monitoring activities. The second is formed by those who are not able to use computer programs and feel frustrated by this.

Educational interventions cannot be the same for all the different adult groups: different learning approaches are needed for migrant adults and for European adults who lack technical abilities or skills. It has been observed that there is no one definition, model, or theory that can explain how or why adults learn, and that what we know about adult learning has been derived from disparate practices [10].

Furthermore, in order to design effective educational opportunities for low-skilled adults, one ought to take into account that unskilled jobs don't necessarily require low-skilled people. A low-skilled person is an individual who lacks the education or training necessary in order to become employed, whilst an unskilled job may require basic skills training for the work to be completed successfully.

Globally, low-skilled jobs account for almost 45% of all jobs

according to the International Labor Organization [11]. Unskilled labor provides a significant part of the overall labor market, performing daily production tasks that do not depend on technical abilities or skills. In fact, many low-skilled jobs, such as waiters, retail stock clerk, retail cashier, front desk receptionist, etc., require physical abilities and mechanical skills at higher levels than other jobs [12].

In this respect, it is really illuminating to read the observation that Brittany Bronson made in a recent post: The terms “unskilled” and “low-skilled labor” contradict the care and precision with which my co-workers, who have a variety of educational backgrounds and language fluencies, execute their tasks. A newly hired server assistant can learn to, say, “Take these plates from here to there,” but a skilled server assistant can clear a table in one trip versus two, simply with more careful placement of dishes along his forearm or between his knuckles.

In the restaurant business, we call this a “nice carry”.

[...] And although most low-skill work requires a constant interaction with people, because of its low-paying status it is deemed a dead end, rather than a testament to an individual’s ability to acquire, adapt and specialize.

Although our aim is not to investigate issues of unskilled and low skilled labor, all the above considerations are relevant to low-skilled adults learning, which is the basis for the EScaIADE project.

The EScaIADE project

The overall issue that the EScaIADE project addresses is the effectiveness of participatory approaches in an online environment. Our hypothesis was that the “one size fits all” concept doesn’t work for adult education, especially for adult low-skilled learners. More specifically, our project addresses the following questions:

- To what extent, and in which ways, can an online environment affect adult learning?
- What are the limitations and the advantages of online non-formal and informal adult education?
- Under what conditions can adult low-skilled learners really improve their educational experience?
- How is it possible to optimize the presence, and costs, of facilitators?

The final question is very important. In fact, participatory learning requires facilitators. They interact with learners to provide discussion subjects, present and discuss case studies, organize tasks that call for participants to work together in small groups, and so on. Indeed, participatory learning aims at the active involvement of all learners in the learning process, stimulating them to think through their mindset and share with others their own experience and knowledge, as well as their values and beliefs.

The EScaIADE project foresees two phases:

- Phase I: definition and organization of a learning experiment; this phase includes a desk research and a survey aimed to contextualize the experiment within the scope of online participatory learning and to highlight some hypotheses on the above open questions;

- Phase II: running the online participatory learning experiment involving low-skilled adults aged from 45-55 years.

In the context of our project, online learning is assumed to be the delivery of educational content through electronic media, particularly the Internet. Accordingly, participatory online learning is viewed as a collaborative student-centered environment in which students learn from both their peers and teachers using digital media resources. Our hypothesis was that an online participatory learning environment could facilitate adult informal learning. We are persuaded that informal learning is increasingly important because of the rapidly changing knowledge economy [13,14]. It can easily encompass daily life activities closely linked to work, family, community, and any other life-related activities [15]. Furthermore, informal learning can benefit from the huge amount of data available online.

The theoretical background of the EScaIADE project is based on the Participatory Adult Learning Strategy (PALS), an evidence-based approach to adult participatory learning developed by Dust and Trivette, which results from over 20 years of research and practice and, more recently, from the findings of the meta-analyses of adult learning methods and the synthesis of research studies into the most effective adult learning practices [16-18]. PALS is considered to be a strategy that enables the identification of specific practices that are associated with the greatest positive outcomes [19,20].

In the following paragraphs we illustrate phase I of the EScaIADE project that includes the survey conducted to better understand the adult low-skilled context and define the participatory learning experiment.

The EScaIADE survey

A survey, based on the aims of the EScaIADE participatory online learning experiment, has been conducted in the five project participant countries: Latvia (Rezekne), Italy (Rome), Poland (Czestochowa and Katowice), Greece (Athens), and Spain (Malaga). It was aimed at defining the right criteria for selecting the experiment participants and, in accordance with this, also clarifying who are low-skilled adults and what their learning needs and expectations are.

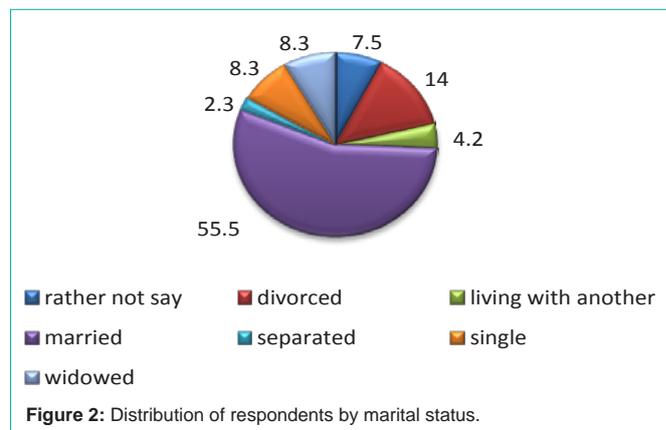
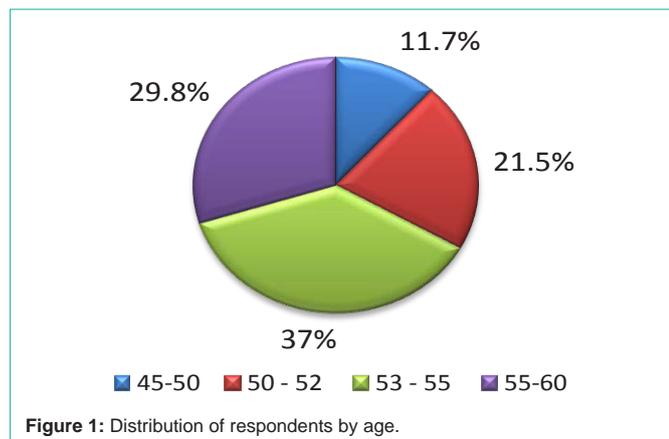
A questionnaire was submitted to adults aged from 45-60 years old who, in the first months of 2016, requested information from a number of selected educational structures in the project participating countries. Furthermore, structured interviews have been performed with some educational institutions, both public and private, which are strongly involved in adult learning.

The questionnaire was divided into two sections. The first contained questions aimed at verifying the respondents’ level of skills using the new technologies, while the second explored their learning needs and expectations.

In this article, we will only report on the second part of the questionnaire.

A total of 265 responses to the questionnaire (50 from Latvia, 50 from Poland, 50 from Spain, 50 from Greece, and 65 from Italy) and 51 interviews were collected (10 from Latvia, 10 from Poland, 10 from Spain, 10 from Greece, and 11 from Italy).

75.5% of respondents lived in urban areas against only 24.5 % in



rural areas, whilst the educational institutions interviewed comprised 17 governmental institutions, 25 private educational institutions, and 9 NGOs.

The data processing has been carried out using the IBM SPSS program and the following methods:

- Descriptive statistical methods (determination of frequency);
- Conclusive statistical tests for the determination of differences based on the respondents' profiles (country, gender, marital status, place of residence, level of education) – Mann-Whitney test, Kruskal-Wallis test.

Initially, the interpretation of results has been performed through a comparative analysis of all data, and then results from the different countries have been analyzed separately. Figure 1 shows the distribution of respondents by age.

Needs and expectations of adult learners

The questionnaire analysis reveals that 53.2% of respondents consider adult education as necessary, 46% believe that adult education is also a right, and 44.9% see it as an opportunity. 64.2% of respondents declared that they had attended at least one course during the previous three years.

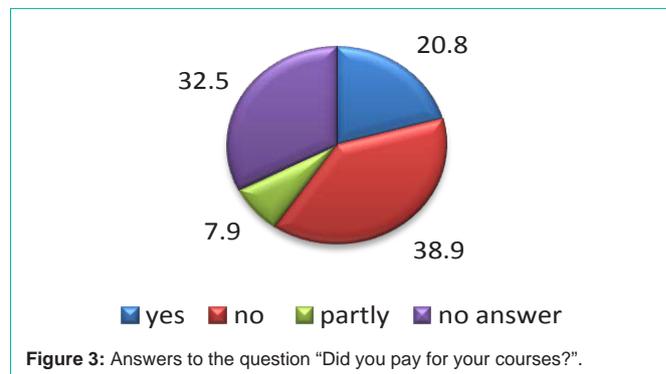
There is a significant difference ($p=0.029$) in course attendance depending on the respondents' gender: males appear to be more active (Mean Rank 135.58) than females (Mean Rank 119.13). This difference ($p=0.000$) varies in the different countries, respondents from Spain (Mean Rank 175.20) and Poland (Mean Rank 146.27) attend courses more actively than respondents from Greece (Mean Rank 136.81), Latvia (Mean Rank 108.54), and Italy (Mean Rank 97.81).

The use of educational services seems to depend on marital status (see Figure 2 for the distribution by marital status): unmarried respondents are the most interested in educational services (singles: Mean Rank 153.25; widows: Mean Rank 165.20), whilst those who live with a partner (Mean Rank 103.59) or are separated (Mean Rank 109.42) attend courses less frequently.

In the last three years, 41.5% of respondents attended courses related to their professional improvement; of these, 16.2% attended English courses and 15.8% ICT courses. Some respondents (9.4%)

Table 1: Course attendance by country (Kruskal-Wallis test).

Type of courses	p	Mean Rank				
		Greece	Italy	Latvia	Poland	Spain
ICT	0.000	108	176.88	183.9	117.95	84.39
English	0.000	125.19	163.24	182.6	103.8	91.76
Specific course for profession	0.000	121.51	156.86	163.03	134.57	91.77
Culture	0.000	127.47	168.32	180.26	101.61	88.18
Other	0.000	123.23	171.87	183.88	97.99	89.99



participated in leisure and culture courses (dance, cuisine, health etc.) or in other courses (9.4%). Detailed results on course attendance are illustrated in Table 1.

From the questionnaire analysis, it emerges that the lowest level of course attendance is in Spain, whilst the highest is in Latvia.

Many respondents attended both courses organized by public institutions (38.5%), and private organizations (28.7%).

Figure 3 relates to the payment of course fees. Depending on the participation in the survey of countries with different economical situations, we decided to not specify the levels of course fees for "yes" and "partly" respondents. The level of satisfaction with the learning experience is reported in Figure 4.

Intriguingly, only 50.2% of respondents declared their satisfaction with the learning experience. Respondents pointed out that:

- Training programs were not always effective enough (13 cases);



- Training contents were poor (12 cases);
- Knowledge acquired was not always applicable to practical activities (5 cases);
- Courses were expensive (5 cases);
- Trainers were incompetent (4 cases).

The learning preferences are reported in Table 2. Learning preferences respond to perceived needs linked to the globalization process: the acquisition of foreign languages and computer skills. Figure 5 details the primary learning motivation.

The prevailing motivation to learn is the acquisition of knowledge/

Table 2: Learning preferences.

	Partner-countries	Greece	Italy	Latvia	Poland	Spain	P-value
To use computers and the Internet	26.4	18.8	31.4	28	36	20	0.000
English language	37.7	45.3	41.2	40	28	32	0.033
Foreign language	31.3	51.6	13.7	30	34	22	0.000
Other	26.4	48.4	15.7	14	22	38	0.002

Table 3: Differences in learning motivation factors.

Motivation	Significance (p)	More recurring in	More recurring in
To acquire work knowledge/skills	0.000	Latvia	Poland
To acquire work knowledge/skills	0.002	Poland	Spain
Obligated to participate	0.005	Poland	Greece
To meet new people	0.000	Poland	Spain
Just for fun	0.000	Poland	Spain

skills useful in everyday life.

Analyzing learning motivation factors, significant differences emerged (see Table 3).

Respondents were also asked to evaluate the barriers that prevent their participation in training courses.

The majority of respondents (66.8%) stated that there are no barriers to learning activities. However, the following barriers have been indicated:

- Lack of time - 40 cases;
- Training costs - 35 cases;
- Mobility (e.g. distance from the place where lessons are organized) - 23 cases;
- Lack of interesting training programs - 10 cases;
- Unavailability of a computer - 7 cases.

Furthermore, regarding their computer familiarity, many respondents claimed they have good or high skills in e-mailing (good 33, 6 %, high 17, 6 %), searching on the Internet (good 42, 6 %, high 11, 3 %) and word processing (good 37 %, high 13, 2 %).

The questionnaire data analysis confirmed some aspects regarding adult education that have been underlined in other studies:

- Low-qualified adult learners had sometimes not even completed their initial school qualifications and often, though not always, had significant skill deficits; the majority of them typically had not had any consistent access to high-quality support services at critical turning points in their career trajectories [21].
- Many low-skilled adult learners lack digital literacy skills to independently use self-directed interactive programs [22].
- Motivation in adult education includes both professional and economical motives as well as the desire to learn specific subjects and to socialize through meeting new people [23].
- Participation in adult education is higher among employed and highly educated people: high-qualified, employed, and younger adults are more likely to participate in courses [24,25] and, consequently, there are those who would argue that, for these reasons,

adult education potentially enhances social disparities instead of reducing them [26].

Finally, interviews conducted with the adult education institutions have been very useful to the contextualization of the participatory learning experiment. They confirmed that there are two different types of low-educated or low-skilled adults: those who don't possess adequate skills and competence to perform a job, and those who are sociologically defined as 'marginalized adults' [27, 28]. Private educational institutions commonly focus on the first class of adults, and run educational programs for marginalized adults only if these programs are funded.

The participatory learning experiment

We designed the participatory learning experiment taking into account the survey results and the current research on adult education and participatory learning.

In accordance with the fact that adult learners don't constitute a homogeneous class, we decided to involve in the experiment only low-educated or low-skilled adults who perceived themselves as low-educated or low-skilled in digital skills. In this way we attempted, as much as possible, to define a homogeneous group of participants.

We decided also to include adults aged from 50 to 60 years old, preferably 55, and an equal number of men and women.

Another relevant factor emerged from the survey was that the adult main motivation to learn is enhanced by the aim of achieving useful work skills. As a consequence, the training course will focus on the use of the new technologies as a mean to improve learners work abilities. The experiment foresees the participation, in each of the project countries, of 20 adult learners in a training course on basic ICT concepts. This course will be organized as an online non-formal learning program that also includes some informal learning modules.

The online activity will be preceded by a one-day face-to-face training aimed at:

- Presenting the training course objectives;
- Submitting the pre-test;
- Creating and motivating (4 four participatory groups),
- Discussion (scheduling the online participatory activities),
- Assigned e-learning tasks,
- Assigning tasks that groups ought to perform by interacting online.

A participatory approach will be adopted and teachers will be supported by a facilitator, expert in participatory processes. Furthermore, two observers will take note of interactions both between learners and learners, and between teachers and learners.

The presence of the two observers is aimed at evaluating and optimizing the activities of facilitators, whilst several tests will be implemented to assess the actual improvement of learners. In this way, we will try to answer the questions about the limitations, advantages, and improvement of online non-formal and informal adult low-skilled learning.

Four online learning modules have been developed:

1. Web searching (with exercises)
 - a. Using search engines to find information
 - b. Using different browsers
 - c. Formulating appropriate queries
 - d. Analysis of searched information
 - e. Case study
2. E-mail (with exercises)
 - a. Setting up an e-mail account
 - b. Writing / answering emails
 - c. Writing effective professional emails
 - d. Email management
 - e. Case study
3. Messengers (with exercises)
 - a. Messengers available on the web
 - b. Messengers use
 - c. Testing different messengers
 - d. Creating effective messages
 - e. Case study
4. Professional use of new media (with exercises)
 - a. Job seeking
 - b. Online translators
 - c. Cloud computing
 - d. Case study

Learners will form groups and will interact with them using Skype, email, and PB works, which is a wiki platform that allows multiple users to access pages online in order to collaboratively work on the content [29]. Teachers will support the learning activities in two ways:

- Being present in a chat room during defined time periods
- Answering questions by email

All learners' activities will be traced, and will be analyzed at the end of the experiment through a set of common criteria decided by the project partners.

The experiment will be concluded with one day of face-to-face activities where:

- Groups present their participatory work and discuss it together
- Groups express their suggestions and recommendations
- Facilitators ask questions

A final test both for trainees and trainers will be submitted and

facilitators will be interviewed.

A pilot test is foreseen before running the experiment.

Conclusion

One of the most important aspects of learning practices is to use evidenced-base professional development practices. This is crucial when educational intervention concerns inhomogeneous groups of learners, as in the case of low-skilled adults.

The EScaLADE project was conceived from this perspective. In this project we aim to test evidence-based participatory learning practices as well as the effectiveness of the Participatory Adult Learning Strategy (PALS) model.

The outcomes of the first part of our project that are illustrated in this article confirmed the findings and evaluations of other studies, and have been demonstrated to be relevant to the definition of the experiment scope.

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