

# Learning in later life: participation in formal, non-formal and informal activities in a nationally representative Spanish sample

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**Abstract** This article examines the participation of Spanish older people in formal, non-formal and informal learning activities and presents a profile of participants in each kind of learning activity. We used data from a nationally representative sample of Spanish people between 60 and 75 years old ( $n = 4,703$ ). The data were extracted from the 2007 *Encuesta sobre la Participación de la Población Adulta en Actividades de Aprendizaje* (EADA, Survey on Adult Population Involvement in Learning Activities). Overall, only 22.8 % of the sample participated in a learning activity. However, there was wide variation in the participation rates for the different types of activity. Informal activities were far more common than formal ones. Multivariate logistic regression indicated that education level and involvement in social and cultural activities were associated with likelihood of participating, regardless of the type of learning activity. When these variables were taken into account, age did not predict decreasing participation, at least in non-formal and informal activities. Implications for further research, future trends and policies to promote older adult education are discussed.

**Keywords** Learning · Life course and developmental change · Successful ageing

## Introduction

It is well-known that populations in both developed and developing countries are ageing and have experienced a dramatic rise in the proportion of people aged 60 and over. People over 60 now expect to live longer than in the past and are likely to be better educated, in better health and with more financial resources. This changing profile has promoted an optimistic view of older people that contrasts to the traditional image of dependency and passivity associated with later life. Among other aspects, the new face of ageing conceives older people as able and willing to participate in learning activities to acquire new knowledge and skills so that they can continue to develop personally and contribute to the communities that they are involved in.

For instance, since the late 1990s, the World Health Organization (2002) has adopted the term ‘active ageing’ to convey a more inclusive and complex view of older people, including their capacity to participate in social, economic or civic activities. Hence, learning and capacity building are not only indicators of active ageing but also a means to channel older people’s needs and give them instruments to promote their participation in other areas. As it is well-known, participation in older age (including participation in learning activities) has the potential to increase both older people’s well-being and their contribution to the communities where they live (Lee 2006; Siegrist et al. 2004). Accordingly, there has been an interest within the political arena in learning and education in older age. For instance, the European Commission (2006) identified several educational issues relevant to older persons, such as the skills upgrading to cope with potential labour shortages due to demographic changes, or the reduction of social exclusion through the promotion of adult learning to improve skills and personal autonomy.

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However, so far there has been little research on the extent of older people's involvement in learning activities, on which kind of learning activities they are involved in, and on the factors that predict such involvement. That kind of knowledge is a key to promote participation of older people in learning activities and to design an offer of activities that could attract older people and suit both their needs and social needs. Using data from the Spanish nationally representative *Encuesta sobre la Participación de la Población Adulta en Actividades de Aprendizaje* (EADA, Survey on Adult Population Involvement in Learning Activities), our paper addresses these questions.

What is adult education?

Traditionally, education was regarded as occurring only during the early years and finishing once full biological development and social maturity is achieved. At that point, the person is supposedly prepared to enter a new productive stage of life that lasts until retirement. Consequently, the idea underlying compulsory education in the early stages of life span is that people have to accumulate sufficient knowledge and skills to serve them for the rest of their lives, and particularly to guarantee their insertion into the labour market (Jarvis 2004). However, in contemporary societies, in which knowledge changes rapidly and uncertainty is a defining characteristic, the 'front-end' model of education is no longer relevant, and few people can aspire to have their education 'completed' at a certain point of their life (Withnall 2000).

Since the 1960 and 1970s, the concept of lifelong learning has been popularized to express the need for implementing educational policies that are neither confined to any specific age group nor to the education administered by formal institutions. The focus is on learning rather than education. In other words, the emphasis is on individual activity, beyond educational institutions (Tuijnman and Boström 2002). Thus, lifelong learning recognizes that learning occurs throughout the life cycle of each individual and takes place inside and outside schools or universities. It was proposed as an opportunity to reduce social inequalities by means of education (United Nations Educational, Scientific and Cultural Organization 1972). In childhood and adolescence, this means increasing success in compulsory education. In adulthood, it means offering training courses for workers or unemployed people. Finally, in older age it usually means promoting post-retirement education (Evans 2006).

One of the most widespread typologies of lifelong learning activities is the distinction between formal, non-formal and informal learning (La Belle 1982). Formal learning refers to the structured, chronologically graded and prescribed activities that take place at institutions specially

designed to offer education, i.e. from primary schools to universities. Formal learning tends to be guided by a teacher or trainer, there is an external specification of outcomes, and the aim is to attain an officially recognised degree or diploma (Eraut 2000). Non-formal learning is also the product of an intentional, organized and systematic educational activity aimed at improving skills or competences. However, it takes place outside recognised educational institutions and the activities are not usually interconnected in an age-graded and systematic way. It provides selected types of learning to specific groups in places such as businesses, senior citizen centres or libraries. Finally, informal learning refers to activities by which individuals acquire knowledge, skills or attitudes beyond any systematic and organised educational experience provided by an institution. Informal learning occurs in daily contexts such as interacting with family or friends, reading books or newspapers, listening to the radio or watching TV, visiting museums or attending lectures and conferences.

Despite a recent increase in the number of adult and older students studying at regular universities (see, for instance Hamil-Luker and Uhlenberg 2002), formal educational programs continue to be restricted to the initial stages of life. As for non-formal learning, its promotion has become the core of lifelong learning policies. However, it has mainly been used to retrain workers in professional contexts, so that they can adapt their skills profile to the changes that affect jobs and the labour market in general (Walters 1997). In addition, the emphasis on becoming a learning society to promote economic competitiveness has favoured vocational education and training. This has marginalised older adult learning, in spite of some general rhetoric about the non-economic, personal and social benefits of lifelong learning (Withnall 2000).

### The involvement of older people in education

Despite the difficulties of involving older adults in mainstream policies of lifelong learning, the offer of educational programs for older students has increased dramatically in the last three decades. These learning opportunities have arisen in different settings and are sponsored by different institutions, including universities, senior centres and self-organised courses (Manheimer and Moskow-McKenzie 1995). The main concern is not to acquire work-oriented skills or qualifications, but for participants to socialize and remain active and to promote their personal development (Jamieson 2007). Universities have been particularly active in sponsoring non-formal courses for older people, the best examples being the Universities of the Third Age (in Europe) or the Institutes for Learning in Retirement (in the United States) (Villar et al. 2010).

However, empirical research in this field is not keeping up with the growing interest in senior education and older learners. Although the number of studies has increased in the last few years, they are still relatively scarce. For instance, Chen et al. (2008) reviewed the studies published in the main adult education journals from 1980 to 2006. They found 93 articles, but only 26 (27 %) were empirical studies. Although these provide useful information, most of the research to date has been based on relatively small non-random samples gathered in particular geographical areas or involving the participants of specific educational courses.

An exception to this trend is Hamil-Luker and Uhlenberg's (2002) study, which examines rates of older people's participation in learning activities using data from the National Household Education Survey (NHES) that is representative of the non-institutionalised population of the United States. The results were presented by type of course provider, and showed the low, but increasing, participation of older adults in learning activities. Among people between 66 and 74 years old, 2.8 % had participated in a course organized by an educational institution in 1991, and 4.8 % in 1999. Participation was higher for courses provided by business or industry (2.0 % of older people participated in 1991, 4.8 % in 1999) and courses provided by community organizations (4.5 % of older people participated in 1991, 11.5 % in 1999). The 2005 NHES data (O'Donnell 2006) showed that 23 % of people over 65 years old had participated in a formal educational activity in the previous year. Formal education activities were defined as courses that had an instructor present, including those taken for personal interest or development that was not necessarily related to the person's job or career. The survey also found that 64 % of people over 65 years old had participated in an informal learning activity, i.e. those taken for personal interest that did not have an instructor. However, no studies used a clear-cut difference between formal, non-formal and informal learning, as widely accepted and described above.

In Europe, studies that have examined the extent of adult education in later life are scarcer. Kailis and Piros (2005) found some interesting results about lifelong learning, and differentiated clearly between formal, non-formal and informal learning in the 25 countries that were part of the European Union at that time. Unfortunately, their target population was 25–65 year olds. In the last age group that was taken into account (55–65 years old), 30 % had participated in an educational activity in the last year, a percentage that in any case seems to be far lower than in the United States. In a more recent study (Eurostat 2011) it was found that in 2009 across the EU-27 the 4.6 % of the population aged 55–74 participated in formal and non-formal educational activities in the 4 weeks preceding the

survey. High differences among countries were also found. For instance, while almost a 24 % of the Danish aged 55–74 participated in those educational activities, in Spain only the 4.5 % did it.

Studies that focused on the participation of older people in learning activities also pointed out the influence of factors such as age, education level or gender. Regarding age, younger adults tend to participate more in learning activities than older people (Kailis and Piros 2005). Since most studies treat people over 60 or 65 as a single group, there is little evidence of the influence of age in older samples. However, it is likely that participation decreases among the oldest samples. If older people link adult education to training in working settings, the frequency of educational activities (and particularly the most formal ones) should decrease with age, and especially after retirement. Age is also related to an increasing likelihood of suffering from health conditions, which could hindrance participation in educational activities. Such effect has been found in other behaviour that is included in the 'active ageing' concept, such as volunteering (Choi 2003).

Education level also seems to have a robust influence on participation, and some authors consider that it is probably the single best predictor of participation in formal and informal educational activities (Kim and Merriam 2004). Thus, the highly educated tend to participate more in learning activities. This result was found in studies using both representative samples (e.g. Hamil-Luker and Uhlenberg 2002; Kailis and Piros 2005) and samples from specific educational courses (e.g. Alfageme 2007). So, if participation depends more on generational factors (e.g. education) than on ageing-related factors (e.g. retirement), we should expect that the more educated people would participate more in educational activities regardless their age.

In contrast with age or education, sex does not seem to have such a straightforward influence. Whereas some studies suggest that the effect of sex is small regardless of the type of learning activity (Kailis and Piros 2005; O'Donnell 2006), one study found that older women tend to participate more in courses provided by community organizations (Hamil-Luker and Uhlenberg 2002). Studies that used samples gathered from specific non-formal courses, such as the Universities of the Third age, also found that women participate more than men (Alfageme 2007; Orte et al. 2004).

To sum up, the current research attempts to provide data on participation in learning activities in later life, differentiated by type of activity (formal, non-formal, informal). The expectation is that only a minority of older people will participate in learning activities, and participation will be lesser in the more formal types of activities. Second, we examine the influence on participation of variables such as

age, sex or education level, among others. It is expected that participation will decrease in older groups (and particularly in formal activities), but increase among those older people who have achieved a higher level of education. Both bivariate and multivariate analyses were conducted to establish a profile of older Spanish formal, non-formal and informal learners.

## Method

### Participants

Data for this study came from the *Encuesta sobre la Participación de la Población Adulta en Actividades de Aprendizaje* (EADA, Survey on Adult Population Involvement in Learning Activities), which was the Spanish part of the Adult Education Survey (AES), an European project coordinated by (Eurostat 2005). The survey was conducted in 2007 by the Spanish National Institute of Statistics (INE).

The focus of the Adult Education Survey was the working-age population of 25–64 year olds. However, in the case of Spain, the age band was widened to include people up to 75 years old and the sampling method followed a two-stage stratified design, in which census units, and households within those units, were randomly selected. Sample was also weighted by age (five age groups), sex and Autonomous Community (17 Spanish regions), to ensure that the distribution of these variables in the final sample resembled their distribution in the Spanish population (see more details about the sampling design in INE 2007a, b). The Spanish sample included 24,030 adults from 25 to 74 years old who live in family households. Participants in our study consisted of 4,703 respondents (2,169 men and 2,534 women) who were between 60 and 75 years old (1,662 people from 60 to 64 years old, 1,374 people from 65 to 69 years old and 1,667 from 70 to 75 years old).

### Measures and procedure

#### *Sociodemographic variables*

The EADA included questions about sex, age, education level, employment status at the time of the interview and type of residence. For the analyses, age was grouped into three categories (60–64, 65–69, and 70–75), education level into three categories (primary studies or less, secondary studies, and university or equivalent studies), employment status into three categories (non-retired, including those actively searching for a job; retired, including people with disabilities; and housewives), and type of residence into three categories (urban, semi-urban and rural).

#### *Participation in learning activities*

The EADA included questions to find out whether the participant had been involved in the three kinds of learning activities (formal, non-formal, informal) in the 12 months before the interview.

Regarding formal learning activities, participants were asked whether they had been students or participated in a training activity that led to a degree or official certificate. If this was the case, participants were asked to state how many of these activities they had been involved in and describe the content or main subject of each one.

In the case of non-formal learning activities, the question was ‘have you participated in any training activity to increase your ability or knowledge in some area (including hobbies) that does not lead to a degree or official certificate?’ If the response was affirmative, participants had to state the number of activities, identify their type (five alternatives: theoretical courses taught in the classroom; courses that combine theory and practice; courses taught through distance education; private tuition classes; and practical training activities at the workplace) and their content or main subject.

Lastly, to gather data about informal learning activities, participants were asked the following question: “In addition to the aforementioned activities, have you carried out other activities with which you have tried to learn something on your own, at work or in your free time?” Six different types of activities were presented, for which participants had to respond yes or no (learning from a family member, friend or work colleague; using printed material; using computers; using the television, radio or video; using guided tours of museums, historical/natural/industrial sites; and visiting learning centres including libraries). A dichotomous variable was created for the analyses, coding as ‘yes’ if the participant had response affirmatively to any informal learning activity and ‘no’ if none of the proposed activities were carried out. In addition, participants were asked about the content or main subject of their informal learning activity.

#### *Cultural and social participation*

Questions in the EADA about cultural participation distinguish between passive (only attending) and active (performing or doing) participation.

Regarding passive participation, participants were asked whether they had attended any of four different groups of activities: (1) theatre, concerts, operas, ballet and dance, (2) cinema, (3) visits to places of cultural interest such as museums or exhibitions, and (4) sporting events. A dichotomous variable was created for the analyses, coding as ‘yes’ if the participant had attended at least one cultural event, and

‘no’ if no events had been attended. An additional variable on whether or not the participant read books for pleasure was also taken into account in the analyses.

The response schema was similar for active participation. In this case, the four activities were (1) public performance of singing, dancing, acting or playing music, (2) taking photographs, films, or videos, (3) painting, drawing or creating a sculpture, including computer design, and (4) writing prose, poems or stories. A variable was created to indicate whether the participant had or had not participated in any active cultural activity.

Finally, data on social participation were collected by means of four questions, asking participants to state whether or not they had participated in activities of (1) political parties or trade unions, (2) professional associations, (3) religious or faith-based groups, (4) recreational groups, (5) charitable or volunteer-run organizations, (6) informal volunteer organizations. Once more, a dichotomous variable was created to find out about participation in any of the aforementioned social activities.

The questionnaire was applied in a one-session face-to-face interview. If in the selected household lived a person with the characteristics (age, divided into five groups, and sex) that the interviewer was looking for, he/she was invited to participate in the study. The interviewer told him/her the research objectives and presented an informed consent to sign. If he/she did not want to participate, or nobody with the selected age and sex characteristics lived in the household, the participant was substituted by other one of the same age group and sex.

## Results

Overall, 22.8 % of the sample stated that they had participated in at least one learning activity in the previous year. A two-step strategy was followed to verify which factors help to predict participation in the different kinds of learning activities (formal, non-formal and informal). First, bivariate analyses of participation were carried out with potential predictive variables. Subsequently, to discard variables which may have a spurious relationship with participation, a logistic regression was run for each kind of learning activity (formal, non-formal and informal) in a multivariate analysis. This analysis was not applied to infer causality, but to determine the characteristics that were uniquely associated with the likelihood of participating in different kinds of learning activities.

### Participation in formal learning

Only 1.1 % of the sample (51 people) had participated in formal learning activities in the 12 months before the

study. A total of 27.4 % were involved in basic skills or primary education classes, 19.6 % in language courses and 29.4 % in university degrees, of which Human Sciences were the most popular.

Table 1 provides a profile of the 51 older people who had participated in formal learning. They tended to be women (70.6 %) and were younger (60.8 % were between 60 and 64 years old) and more educated (almost 30 % of them had university studies) than non-participants. They also participated more in cultural (56.9 %) and social (68.6 %) activities and read for pleasure almost twice as much as non-participants.

In general, the findings from the logistic regression supported the results of the bivariate analyses (see Table 2). The odds of participating in formal learning were twice as high for females (odds ratio = 2.35,  $p < 0.05$ ) and for those who participate in social activities (odds ratio = 2.30,  $p < 0.01$ ) or read for pleasure (odds ratio = 2.75,  $p < 0.01$ ). There was also a trend indicating that the older the participant in the study, the lower the probability of participating in formal learning. However, in contrast with the bivariate analyses, education level and participation in cultural activities were not significantly associated with participation in formal learning.

### Participation in non-formal learning

Almost 1 out of 10 members of the sample (9.0 %) had participated in a non-formal learning activity in the previous year. Most of them had only participated in one activity (74.5 %), but 15.5 % had participated in two activities. The content of the activities were very diverse. The most popular courses were arts and crafts (22.6 %), computer-related (22.1 %), second languages (7.8 %) and personal development (6.6 %).

As seen in Table 3, there were significantly more women among participants in non-formal learning than among non-participants, who were also significantly older. The education level of participants was higher and they were more likely to live in urban areas. They also attended more cultural activities, read more frequently for pleasure and participated more in cultural and social activities.

In general, such relationships also appeared in the logistic regression (see Table 4). For instance, women had 88 % more odds of participating in non-formal activities than men, and the odds of participating in these activities was more than twice as high for people with university studies (odds ratio = 2.11,  $p < 0.001$ ). Being retired or a housewife decreased the odds for participating in non-formal learning by 50 %. Furthermore, attending and participating in cultural and social activities were significantly associated with the odds of involvement in non-formal learning activities in the previous year. Interestingly, age



**Table 1** Comparative profile of older people participating versus no participating in formal education

| Variable                                | Participants<br>( <i>n</i> = 51) | Non-participants<br>( <i>n</i> = 4652) | Total<br>( <i>N</i> = 4703) |
|---|----------------------------------|--|-----------------------------|
| Gender*                                 |                                  |  |                             |
| Male                                    | 29.4                             | 46.3                                   | 46.1                        |
| Female                                  | 70.6                             | 53.7                                   | 53.9                        |
| Age***                                  |                                  |  |                             |
| 60–64                                   | 60.8                             | 35.1                                   | 35.3                        |
| 65–69                                   | 23.5                             | 29.3                                   | 29.2                        |
| 70–75                                   | 15.7                             | 35.7                                   | 35.4                        |
| Employment status                       |                                  |  |                             |
| Non-retired                             | 25.5                             | 16.9                                   | 17.0                        |
| Retired                                 | 43.1                             | 56.3                                   | 56.1                        |
| Housewife                               | 31.4                             | 26.8                                   | 26.9                        |
| Education level***                      |                                  |  |                             |
| Primary education or less               | 49.0                             | 68.6                                   | 68.4                        |
| Secondary education                     | 21.6                             | 21.2                                   | 21.2                        |
| University                              | 29.4                             | 10.2                                   | 10.4                        |
| Location                                |                                  |  |                             |
| Urban                                   | 49.0                             | 49.2                                   | 49.2                        |
| Semi-urban                              | 21.6                             | 18.8                                   | 18.9                        |
| Rural                                   | 29.4                             | 31.9                                   | 31.9                        |
| Attending to cultural activities        |                                  |  |                             |
| Yes                                     | 49.0                             | 40.3                                   | 40.4                        |
| No                                      | 51.0                             | 59.7                                   | 59.6                        |
| Participating in cultural activities*** |                                  |  |                             |
| Yes                                     | 56.9                             | 27.9                                   | 29.3                        |
| No                                      | 43.1                             | 72.1                                   | 71.7                        |
| Read for pleasure***                    |                                  |  |                             |
| Yes                                     | 76.5                             | 42.5                                   | 42.9                        |
| No                                      | 23.5                             | 57.5                                   | 57.1                        |
| Participating in social activities***   |                                  |  |                             |
| Yes                                     | 68.6                             | 39.3                                   | 39.6                        |
| No                                      | 31.4                             | 60.7                                   | 60.4                        |

Note *p* values are based on the  $\chi^2$  statistic

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

and type of residence were not associated (or only very slightly) with participation in non-formal learning.

#### Participation in informal learning

Participation in informal learning was higher than in formal or non-formal learning. Specifically, 16.5 % of the sample (774 older people) had participated in some kind of informal learning in the previous year. The most common type of informal learning was the use of printed material (9.4 %), followed by television, radio or video (5.7 %).

**Table 2** Logistic regression of participants versus non-participants in formal education

| Variable                                      | Odds ratio | 95 % CI        |
|---|------------|----------------|
| Gender (male = 0)                             |            |                |
| Female  | 2.348*     | [1.186, 4.650] |
| Age (60–64 = 0)                               |            |                |
| 65–69   | 0.476*     | [0.233, 0.973] |
| 70–75   | 0.283**    | [0.122, 0.656] |
| Employment status (non-retired = 0)           |            |                |
| Retired                                       | 1.185      | [0.547, 2.568] |
| Housewife                                     | 1.127      | [0.477, 2.665] |
| Education level (primary or less = 0)         |            |                |
| Secondary education                           | 0.836      | [0.395, 1.768] |
| University                                    | 1.926      | [0.887, 4.185] |
| Location (urban = 0)                          |            |                |
| Semi-urban                                    | 1.420      | [0.686, 2.940] |
| Rural   | 1.375      | [0.700, 2.665] |
| Attending to cultural activities (No = 0)     |            |                |
| Yes   | 0.817      | [0.460, 1.453] |
| Participating in cultural activities (No = 0) |            |                |
| Yes   | 1.785      | [0.953, 3.343] |
| Reading for pleasure (No = 0)                 |            |                |
| Yes   | 2.746**    | [1.325, 5.699] |
| Participating in social activities (No = 0)   |            |                |
| Yes   | 2.304**    | [1.240, 4.278] |

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

The least common type was visiting learning centres or libraries (3.0 %). Responses on the content of informal learning were even more diverse than for non-formal learning. The subjects that were mentioned most frequently were arts and crafts (13.3 %), humanities (12.1 %) and computer-related contents (9.3 %).

Table 5 shows the profile of the informal older learner. As can be observed, they differed markedly from non-participants in many variables. They were more likely to be younger, non-retired and with a higher education level (22.9 of them had university qualifications). They also attended and participated significantly more in cultural activities and social activities. Interestingly, sex was not significantly associated with involvement in informal learning.

Findings from the logistic regression supported the results of the bivariate analyses (see Table 6). Older people with university studies were twice as likely to participate in informal learning as people with primary studies (odds ratio = 2.01, *p* < 0.001) and retired people were 27 % less likely to participate than non-retired people (odds ratio = 0.73, *p* < 0.05). Attending cultural activities did not seem to influence involvement in formal learning, but participating in cultural and social activities and reading for

**Table 3** Comparative profile of older people participating versus no participating in non-formal educational activities

| Variable                                | Participants<br>( <i>n</i> = 424) | Non-participants<br>( <i>n</i> = 4,279) | Total<br>( <i>N</i> = 4,703) |
|---|-----------------------------------|---|------------------------------|
| Gender***                               |                                   |   |                              |
| Male                                    | 37.5                              | 47.0                                    | 46.1                         |
| Female                                  | 62.5                              | 53.0                                    | 53.9                         |
| Age***                                  |                                   |   |                              |
| 60–64                                   | 48.3                              | 34.1                                    | 35.3                         |
| 65–69                                   | 27.4                              | 29.4                                    | 29.2                         |
| 70–75                                   | 24.3                              | 36.6                                    | 35.4                         |
| Employment status***                    |                                   |   |                              |
| Non-retired                             | 31.5                              | 15.6                                    | 17.0                         |
| Retired                                 | 43.4                              | 57.4                                    | 56.1                         |
| Housewife                               | 25.1                              | 27.0                                    | 26.9                         |
| Education level***                      |                                   |   |                              |
| Primary education or less               | 42.7                              | 71.0                                    | 68.4                         |
| Secondary education                     | 30.0                              | 20.4                                    | 21.2                         |
| University                              | 27.4                              | 8.7                                     | 10.4                         |
| Location***                             |                                   |   |                              |
| Urban                                   | 60.1                              | 48.2                                    | 49.2                         |
| Semi-urban                              | 14.2                              | 19.3                                    | 18.9                         |
| Rural                                   | 25.7                              | 32.5                                    | 31.9                         |
| Attending to cultural activities***     |                                   |   |                              |
| Yes                                     | 62.5                              | 38.2                                    | 40.4                         |
| No                                      | 37.5                              | 61.8                                    | 59.6                         |
| Participating in cultural activities*** |                                   |   |                              |
| Yes                                     | 60.4                              | 25.1                                    | 29.3                         |
| No                                      | 39.6                              | 74.9                                    | 71.7                         |
| Read for pleasure***                    |                                   |   |                              |
| Yes                                     | 72.9                              | 39.9                                    | 42.9                         |
| No                                      | 27.1                              | 60.1                                    | 57.1                         |
| Participating in social activities***   |                                   |   |                              |
| Yes                                     | 61.8                              | 37.4                                    | 39.6                         |
| No                                      | 38.2                              | 62.2                                    | 60.4                         |

Note *p* values are based on the  $\chi^2$  statistic

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

pleasure did affect the likelihood of having participated in informal learning activities in the previous year.

## Discussion

The findings of this study indicate that the majority of older Spanish people do not participate in learning activities, since only 22.8 % of those surveyed mentioned having studied in the last year. Therefore, more than 3 out of 4 older people are not involved in any learning activity. This

**Table 4** Logistic regression of participants vs. non-participants in non-formal education

| Variable                                       | Odds ratio | 95 % CI        |
|--|------------|----------------|
| Gender (male = 0)                              |            |                |
| Female   | 1.886***   | [1.470, 2.420] |
| Age (60–64 = 0)                                |            |                |
| 65–69  | 0.921      | [0.698, 1.214] |
| 70–75  | 0.814      | [0.606, 1.092] |
| Employment status<br>(non-retired = 0) Retired | 0.529***   | [0.394, 0.709] |
| Housewives                                     | 0.534***   | [0.381, 0.750] |
| Education level<br>(primary or less = 0)       |            |                |
| Secondary education                            | 1.445**    | [1.114, 1.875] |
| University                                     | 2.107***   | [1.550, 2.865] |
| Location (urban = 0)                           |            |                |
| Semi-urban                                     | 0.690*     | [0.506, 0.941] |
| Rural  | 0.956      | [0.739, 1.237] |
| Attending to cultural activities<br>(No = 0)   |            |                |
| Yes  | 1.684***   | [1.349, 2.102] |
| Participating in cultural activities (No = 0)  |            |                |
| Yes  | 2.382***   | [1.888, 3.006] |
| Reading for pleasure (No = 0)                  |            |                |
| Yes  | 1.926***   | [1.496, 2.479] |
| Participating in social activities (No = 0)    |            |                |
| Yes  | 1.705***   | [1.366, 2.129] |

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

participation seems to be low when compared to results from other countries, particularly those from the United States, where the percentage of older participants in informal learning has reached 64 % (O'Donnell 2006). The results of our study are similar to those of Kailis and Piros (2005), whose age range only went up to 65 years old. In the European comparison (Eurostat 2011), participation in formal and non-formal educational activities in Spain is far lower than in the Scandinavian countries, where participation among people 65 and over reaches the 25 % in Denmark, 17.2 % in Sweden or 13.5 % in Finland. Aside the Scandinavian countries, participation in Spain is also lower than in countries such as United Kingdom (9.6 %) or the Netherlands (8.4 %), and only slightly higher than in Southern European countries such as Italy (2.4 %) and Portugal (4.5 %). The difference between studies could be partly accounted for by variation in the definitions of formal, non-formal and informal learning activities. Therefore, progress in drawing up a common definition and set of empirical indicators for each kind of learning would allow for greater comparability among studies.

Although our study does not explain why participation was so low, the role of expectations may be important in

**Table 5** Comparative profile of older people participating versus no participating in informal educational activities

| Variable                                | Participants<br>( <i>n</i> = 774) | Non-participants<br>( <i>n</i> = 3,929) | Total<br>( <i>N</i> = 4,703) |
|---|-----------------------------------|---|------------------------------|
| Gender                                  |                                   |   |                              |
| Male                                    | 46.5                              | 46.0                                    | 46.1                         |
| Female                                  | 53.5                              | 54.0                                    | 53.9                         |
| Age***                                  |                                   |   |                              |
| 60–64                                   | 43.5                              | 33.7                                    | 35.3                         |
| 65–69                                   | 28.6                              | 29.3                                    | 29.2                         |
| 70–75                                   | 27.9                              | 36.9                                    | 35.4                         |
| Employment status***                    |                                   |   |                              |
| Non-retired                             | 25.3                              | 15.4                                    | 17.0                         |
| Retired                                 | 49.2                              | 57.5                                    | 56.1                         |
| Housewife                               | 25.5                              | 27.1                                    | 26.9                         |
| Education level***                      |                                   |   |                              |
| Primary education or less               | 46.5                              | 72.7                                    | 68.4                         |
| Secondary education                     | 30.6                              | 19.4                                    | 21.2                         |
| University                              | 22.9                              | 7.9                                     | 10.4                         |
| Location***                             |                                   |   |                              |
| Urban                                   | 54.9                              | 48.1                                    | 49.2                         |
| Semi-urban                              | 19.3                              | 18.8                                    | 18.9                         |
| Rural                                   | 25.8                              | 33.1                                    | 31.9                         |
| Attending to cultural activities***     |                                   |   |                              |
| Yes                                     | 52.3                              | 38.1                                    | 40.4                         |
| No                                      | 47.7                              | 61.9                                    | 59.6                         |
| Participating in cultural activities*** |                                   |   |                              |
| Yes                                     | 54.7                              | 23.1                                    | 29.3                         |
| No                                      | 45.3                              | 76.9                                    | 71.7                         |
| Read for pleasure***                    |                                   |   |                              |
| Yes                                     | 67.1                              | 38.1                                    | 42.9                         |
| No                                      | 32.9                              | 61.9                                    | 57.1                         |
| Participating in social activities***   |                                   |   |                              |
| Yes                                     | 58.3                              | 35.9                                    | 39.6                         |
| No                                      | 41.7                              | 64.1                                    | 60.4                         |

Note *p* values are based on the  $\chi^2$  statistic

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

this issue. Older people may adhere to the traditional division of the course of life into education, work and leisure, corresponding to the first, second and last third of life, respectively. The difference between types of learning activities is compatible with this explanation, since when the degree of formality of a learning activity increases, the rate of participation among older people decreases. Thus, as expected, participation in formal activities leading to a certificate or diploma is very low. Older people do not even participate highly in non-formal activities. However, participation in informal, and more free and self-directed

**Table 6** Logistic regression of participants versus non-participants in formal education

| Variable                                      | Odds ratio | 95 % CI        |
|---|------------|----------------|
| Gender (male = 0)                             |            |                |
| Female  | 1.015      | [0.833, 1.236] |
| Age (60–64 = 0)                               |            |                |
| 65–69   | 0.946      | [0.762, 1.175] |
| 70–75   | 0.896      | [0.717, 1.118] |
| Employment status (non-retired = 0)           |            |                |
| Retired                                       | 0.733*     | [0.578, 0.930] |
| Housewife                                     | 0.915      | [0.690, 1.213] |
| Education level (primary or less = 0)         |            |                |
| Secondary education                           | 1.632***   | [1.339, 1.991] |
| University                                    | 2.005***   | [1.558, 2.582] |
| Location (urban = 0)                          |            |                |
| Semi-urban                                    | 1.078      | [0.864, 1.345] |
| Rural   | 1.009      | [0.826, 1.233] |
| Attending to cultural activities (No = 0)     |            |                |
| Yes   | 1.087      | [1.539, 2.240] |
| Participating in cultural activities (No = 0) |            |                |
| Yes   | 2.395***   | [2.000, 2.868] |
| Reading for pleasure (No = 0)                 |            |                |
| Yes   | 1.857***   | [1.539, 2.240] |
| Participating in social activities (No = 0)   |            |                |
| Yes   | 1.707***   | [1.440, 2.023] |

\* *p* < 0.5, \*\* *p* < 0.01, \*\*\* *p* < 0.001

activities, was far more common. In both cases (non-formal and informal), some of the most popular contents, such as arts and crafts or humanities, have little instrumental value and are focused on leisure or personal development. Activities or contents that are associated with work training or retraining are very uncommon, even among non-retired older people.

A second finding of the study lies in the unbalanced participation of older people across certain variables. Specifically, women tend to be more involved in formal and non-formal education. Education level is a good predictor of participation in any kind of learning activity: the higher the educational attainment, the greater likelihood of continuing to learn in older age. Therefore, our results confirm that an active ageing lifestyle functions as a single package, in which a certain *elite* of higher educated, highly cultural and socially involved older people are the recipients of learning activities. This participation may, in turn, favour even greater involvement in further cultural and social activities, closing the circle. This is an example of the Matthew effect ('the rich get richer and the poor get poorer').

Another important finding of this study was that age was significantly associated with participation in formal,



non-formal and informal learning in bivariate relationships, but was not found to be significant in subsequent multivariate analyses in non-formal and informal learning. In other words, the connection between age and participation in non-formal and informal learning may have been spurious and caused by the influence of cohort-related variables, such as education, discussed above. So, our data show that while participation in formal educational activities might have no sense for people after retirement, being involved in non-formal or informal activities depends more on the educational and cultural background than on age per se, suggesting a continuity of interests and activities that goes beyond the retirement transition. As well as underscoring the need for further research using multivariate analysis, these results offer promising avenues for further research in relation to the developmental and cohort effects on participation in learning activities. For instance, health has been shown to affect other indicators of active ageing such as volunteering (Choi 2003). Unfortunately, the EADA survey did not include any questions on health status, and the age range of its sample was only up to 75 years old. It would be interesting to know what happens after that age, which is when health problems become more prevalent, and to what extent those health problems might end up affecting non-formal and informal participation as well. Longitudinal studies are also needed to chart the development of participation in the last decades of life and to discern between cohort and age-related effects.

The findings of this study also have implications for current policy and practice. Since prior education predicts educational participation in later life, the percentage of older people who want to participate is likely to increase as a better educated generation reaches retirement. Therefore, sponsoring a wider offering of courses and facilitating the access of older people to formal and non-formal courses is crucial to promote education and training in later life. However, further research to discover the barriers that prevent older people from participating in existing courses would help to fine-tune these policies. For instance, despite having over 50 university-based lifelong learning programs that have emerged over the last couple of decades, the emphasis on educational learning as a culturally approved enterprise in later life is recent in Spain in comparison to other European countries. The present generations of Spanish older people still grew in a context that did not encourage organized social participation and looked at retirement as a time to rest or, at most, as an opportunity to be involved in leisure activities. Accordingly, such leisure activities (e.g. watching TV, going for a walk or doing personal hobbies) are the more frequent one among Spanish older people (IMSERO 2009). Traditional family roles are also a factor that should be taken into account. As it happens in other Mediterranean countries, care-related

tasks (e.g. looking after grandchildren while parents are at work) are an activity particularly frequent and intensive among Spanish older people (Hank and Buber 2009), subtracting time to participate in other activities. This fact could partially account for the low educational participation rates in Spain, which, as mentioned above, are more similar to the Southern European pattern than to the Northern European one.

Overall, our results suggest that education in older age has a huge growth potential in Spain. Increasing the involvement of older people in learning activities will enhance personal development in the latest stages of life span and had the potential of reducing social inequalities, which will fulfil the original aims of the lifelong learning movement. Furthermore, if instrumental oriented-to-practice skills were promoted in later life education, it would make older people more capable of continuing to contribute actively to their families and communities. The view of older people as a resource rather than a burden is likely to be key in the future sustainability of ageing societies.

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