ICT training in Spanish non-formal education: a revolution in the making

Abstract

The socio-educational actions implemented by different professionals are mainly developed in the non-formal education field, being their adaptation to the knowledge society a common challenge. The adaptation to the implementation of ICT requires training. This paper analyzes the training received and demanded in ICT by social educators, as well as the relationship between the training received and the use of technologies. A mixed sequential explanatory methodological approach is applied. In the first (quantitative) phase, the EdSocEval_V2 questionnaire was applied to a sample of 504 professionals from the 17 regions of Spain. In the second (qualitative) phase, four online discussion groups were carried out. The results show a scarce training in ICT, as well as a demand for practical training adapted to the groups with which they work. The results show a lack of coordination elements in the training offer. Adequate training is considered necessary for the different starting levels of digital competence, in a coordinated and continuous manner. ICTs are an essential work tool and professionals are a dynamic element against the digital divide and exclusion. Those who work with people who are at risk of exclusion should be adequately trained to avoid the broadening of such divide.

Keywords: ICT, non-formal education, professional training, social education.

1. Introduction

Working collaboratively alongside people who are experiencing greater difficulty than oneself is very human. In a recent study (Kessler et al., 2018) of primitive societies and their social structures, it was demonstrated that caring for the most disadvantaged and sick was common practice. Helping people in great difficulty is still necessary, but the means and tools must be adapted to the reality of the times. To that end, education has proven itself indispensable.

Grajcevci and Shala (2016) distinguished between formal and non-formal education, the former being linked to the education system, and the latter to the community and organizations.

Centering on non-formal education, it is an area that presents very different realities with regard to its definitions, conceptualizations, and specifications (Brennan, 1997). In their

report for UNESCO, Hoppers (2006) coincided over the difficulty of defining this term, due to the large number of initiatives and groups with which it could be associated. The following typologies were presented in the report: para formal-education, personal development, professional and vocational training, literacy with skills development, supplementary non-formal education programs, and early childhood care and education.

The evolution of non-formal education is specific to each context, although the same route is basically followed: from charitable to social assistance and, finally, to work and social education (Moreno-López et al., 2018). Each educational initiative in each country follows different training initiatives. Janer and Úcar (2019) identified up to 45 different degrees related to social pedagogy and non-formal education.

In the Spanish context, there are two clear routes:

- Social Work: focused on the resource management, and public and private assistance.
- Social Education: mainly aimed at training an educator in various non-formal fields of education.

Moreno-López *et al*. (2018) pointed out that Social Education formative indicators are clearly marked with educational and didactic labels and in the case of Social Work are centered on services and social rights. Nevertheless, high levels of coordination are required in professional practice, whenever both are operating with the same shared resources, given their high functional proximity.

Non-formal education has acquired greater importance in post-modern society due to such aspects as its flexibility or the new learning scenarios that are emerging with the rise of new technologies (Romi & Schmida, 2009). In some countries, the educational profile of a non-formal education professional is regulated, while professional profiles have yet to be developed in others (Ezechil, 2015).

At an international level, workers within the non-formal education sector have varied training backgrounds (Janer & Úcar, 2017): social education, social work, teaching, and community intervention. Their activities have been developed on the basis of social problems that are considered through an educational vision and by identifying socio-educational and pedagogical approaches, in order to address underlying problematic

issues (White, 2018), while building on a society where human rights, justice, and peace prevail (Osler & Starkey, 2018).

The arrival of Information and Communication Technologies (ICT) may be added to this complex reality. It has impacted on different sectors of our society and education has been no exception. The innovations resulting from ICT have given rise to the promotion of different methodologies, forms of interaction, and new learning environments (Zuppo, 2012). So, when talking about ICT training, rather than isolated actions, we should think of gradual actions ranging from gaining familiarity with technological tools to transforming educational practices (Cabero-Almenara & Martínez-Gimeno, 2019).

The development of digital competence has become one of the priorities for the European Commission and there is a need to train education professionals in all of its different areas (Gordillo et al., 2019). In the field of social services, ICT and innovations have become a fundamental asset for the Europe 2020 Strategy, within which the Social Investment Package (SIP) has the aim of promoting social inclusion (European Commission, 2015). The SIP urges Member States to invest in the modernization of welfare systems that address poverty, social exclusion, and unemployment, while stressing that ICT-based opportunities (Misuraca et al., 2016) will lead to the improvement of social innovation.

Yet to speak of ICT and social education implies confronting the realities of each and every collective. Thus, for example, if we are to speak of young people, we will find uniformity with formal education. But when speaking of other collective groups (prostitutes, migrants, female victims of domestic violence, dependency, mental illness, functional diversity…) new educational needs related to ICT appear, in addition to the didactics of formal education: administrative processes (police reports, grant application forms…), support for young children, knowledge of specific applications.

While the benefits of ICT are promoted, this evolution also holds some risks: cyber-bullying, grooming, sexting, malware, abusive use or access to inappropriate content. These identifiable risks are changing and increasing with the expansion of access systems. The updating of differentiated research (gender, age, economic level, *etc*.) provides new evidence. All these risks/realities must be taken into account in the development of training actions and related with the characteristics of each collective, given their greater vulnerability.

However, specific risks are also found at the social level. The digital gap is a key element (De Rosa, 2017), directly related to the lack of internet access or the poor training of users. Associated difficulties are the digitization of both social (Taylor, 2017) and bureaucratic tasks that, deprived of a human interface, cannot always take into account the difficulties of social groups.

1.1. Initial ICT training

In the field of socio-educational action, a level of computer literacy and mastery of ICT are essential. In their initial training, students should become familiar with these tools. It brings advantages such as greater confidence when using ICT tools professionally in the future, improvements in communication, and users who distrust traditional media may even be reached more easily than in other ways (Diaconu et al., 2020).

Nowadays, many students are familiar with a significant number of ICT tools (Sampedro-Requena & Marín-Díaz, 2015), are multi-device users, and hold positive attitudes towards the technologies they use. However, it was asserted in another study (Cabezas-González & Casillas-Martín, 2017) that their use is more personal than academic or professional. The ICT competence of a student can include values that are more developed in pedagogical and ethical fields than in technological fields (Almerich *et al*., 2018).

1.2. Continuous ICT training of professionals

In the field of formal education, we find different teacher training plans that revolve around ICT (Escudero et al., 2018) and there is even a framework that provides a basis on which to support the development of this competence among teachers and schools, and that serves to implement training actions to improve performance. At the European level, the so-called Digital Competence Framework for Educators (DigCompEdu) is available (Punie & Redecker, 2017).

A very different panorama is found in the socio-educational field. On the one hand, due to the variety of groups and sectors with which professionals develop their activity and their different needs. On the other, because there is no structured training plan at regional or state level aimed at social educators (Martínez-Pérez & Lezcano-Barbero, 2020a). Eslava Suanes *et al*. (2018) incorporated aspects in their study that referred to the continuous training of non-formal education professionals, which they considered scarce

and often inadequate for their demands. In addition, they stressed that interest in following training should come from the professionals themselves, who will also be the ones to bear the costs of the training. In the absence of a common strategy for the development of digital competence, there is a lack of coordination between initiatives that are launched by local administrations, companies, and other organizations (Cabezas-González & Casillas-Martín, 2021).

The SIP has listed more than 600 social innovation initiatives implementing ICT in the European Union in areas such as: social inclusion, participation, education, civic engagement, employment, care and social care, *etc.* (Misuraca & Pasi, 2019), although some of these are one-off and are not sustained over time.

However, digital integration among non-formal education workers should not be left to chance or voluntarist learning. Rather than that, professionals should be prepared for this digital practice in a connected society (Taylor, 2017). Hidalgo-Lavié and Lima-Fernández (2018) concluded that good training influences a better use of ICTs among these professionals. Recmanová and Vávrová (2018) likewise mentioned that digital literacy is necessary, together with periodic evaluations and needs analysis.

Finally, we should not forget the impact of the COVID-19 pandemic, which has forced the rapid adaptation of many educational practices to virtual environments (Starkey et al., 2021) and has revealed imbalances in digital equity (Greenhow et al., 2020). Various non-formal education programs in the socio-educational field were forced to migrate rapidly to online or blended modalities (Wilkerson et al., 2020) in a sector that was not used to these work environments, which has led to a demand for training among professionals (Martínez-Pérez & Lezcano-Barbero, 2020b).

Aware of the different studies at national (Usart-Rodriguez et al., 2021), state, and European (Starkey et al., 2021) levels on teacher training (formal education) in ICT, this research addresses the training of non-formal education professionals in Spain.

The objectives set out in this paper are as follows: 1. To determine the extent of ICT training that social educators receive in Spain as postgraduates; 2. To identify the variables linked to the ICT training of these professionals; 3. To assess whether there is a relationship between the ICT training received and their use; 4. To ascertain the different types of ICT training that the professionals request.

2. Method

The development of this study stems from a sequential explanatory mixed methodological design which was carried out in two phases: a first quantitative phase and its analysis, and a subsequent qualitative phase that allowed to obtain complementary information and explain the phenomena and relationships of the first stage (Creswell, 2015). According to Ramírez-Montoya & Lugo-Ocando (2020), the use of mixed methods in research on educational technology has grown steadily in recent years and it is now acknowledged as an appropriate approach to address the complex educational phenomenon, since the combination of strategies improves the understanding of the problems by adding breadth and depth versus the use of a single method.

2.1. Quantitative phase

2.1.1. Research tools

For the quantitative phase of the research, the ad hoc EdSocEval_V2 questionnaire was used. Prior to its circulation, it was validated by five expert professionals (Olson, 2010) with extensive experience in the field of social education, members of governing boards of professional associations, and professors of the Degree in Social Education at different universities with experience in teaching and research.

Subsequently, an analysis of the validity of the tool was performed by calculating Cronbach's Alpha, factor analysis and calculation of rotated factors. The analysis of internal consistency through Cronbach's Alpha for the EdSocEval_V2 questionnaire was 0.891, a figure usually considered high (Taber, 2017).

To consider factor analysis, the Kaiser-Meyer-Oklin test (0.808) and Barlett's test of sphericity (significance 0.000) were performed, with results in both tests indicating the feasibility of factor analysis. By means of orthogonal Varimax rotation, 8 factors were extracted, explaining 60.225% of the variance.

Factor 2 (ICT training) is made up of 8 items referring to the ICT training received by the participants and its Cronbach's alpha is 0.900. Factor 4 (Use of ICT) has 8 items and a Cronbach's alpha of 0.828.

2.1.2 Sample

The questionnaire was implemented online (self-administered) through a *GoogleForms* form. Sampling was performed using the snowball technique, in which researchers ask

participants to identify potential new members for the sample (Creswell, 2015). Various professional associations of social educators collaborated with the survey which was distributed online in sites related to the social education field. The questionnaire is anonymous, and participants must give their informed consent before starting the questionnaire.

The sample of the quantitative phase was made up by 504 social educators from the 17 regions of Spain. Most of the sample was composed of women (n=408; 81%) as opposed to men (n=96; 14%). Age ranged from a minimum of 21 to a maximum of 64. The average age was 37.3 years, the median was 36, the mode was 25 and the standard deviation was 9.47.

Work experience varies between 1 (minimum) and 42 years (maximum). The mean number of years of experience is 10.6, the median is 10, the mode is 1 and the standard deviation is 7. Regarding the type of employment, most of them work in the private sector as employees (51.4%), followed by those who work in the public sector (40.1%) and only 4.8% are self-employed. Of the sample, 2.4% are unemployed and 1.4% tick the option "other", which includes scholarship holders or other similar situations.

2.1.4. Data analysis

Quantitative data analysis was performed with the IBM SPSS program version 25. First, descriptive statistics were obtained and then inferences were drawn. By means of graphic observation and the Kolmogorov-Smirnov test, checks were made that do not allow us to affirm that the sample follows a normal distribution. Therefore, for the inference relationships, the non-parametric Pearson's Chi-squared test was used, establishing the level of significance at 0.05.

2.2. Qualitative phase

In this phase, online focus groups were used as a procedure. This group interview technique will helped us to deepen into the results obtained in the survey through the interviews conducted, thanks to the interaction between the participants (Creswell, 2015). The consequences arising from the COVID-19 pandemic prompted the online distribution of the focus groups through the *Microsoft Teams* tool, a strategy used in different previous works (Kenny, 2004; Reid & Reid, 2005). For the development of the groups, based on the results of the quantitative phase, six open questions were established in relation to ICT training which addressed aspects on the training received and given, personal

considerations and evaluations, search and access to training actions, criteria for enrollment and focus of the training demanded.

2.2.1. Sample

The sampling of the qualitative phase was carried out intentionally, ensuring the representation of people from different work environments, territories, genderes and ages.

For virtual focus groups, it is recommended to reduce the number of participants compared to traditional ones (Poynter, 2010). Abrams and Gaiser (2017) place the number of participants for virtual focus groups synchronously between three and eight. In our case, the minimum number of participants (3/4) was chosen to ensure the collection of the most detailed information.

The selected individuals were contacted by e-mail to request their participation and were duly informed about the objectives of the study. Those who agreed to take part were asked to complete the informed consent form and were given access to the focus group sessions through *Microsoft Teams*. The participants were organized as shown in Table 1. **[Table 1 near here]**

The participants were grouped according to their field of work (minors, community and rural development, housing, attention to diversity, street education, and even incipient fields such as work within formal education). People from the same field were not allowed to coincide in the focus, in order to eliminate a possible thematic monopoly. As indicated above, we highlighted the participation of representatives of professional organizations.

2.2.2. Development of the focus groups

Four focus groups were conducted between April and June 2020 with an average length of 85 minutes (a minimum of 65 and a maximum of 96 minutes) (Table 1). The sessions were recorded for further analysis.

2.2.3. Qualitative data analysis

The analysis of the qualitative data was carried out in four steps using an inductive approach, following the procedure outlined by Green et al. (2007): data immersion, coding, creation of categories and identification of themes. A verbatim transcription of the four focus groups was made and, subsequently, the content was analyzed using *OpenCode* qualitative data analysis software.

The emerging topics, which are configured from the open coding, are presented in the section on the results of the focus group.

3. Results

3.1 Quantitative results

The results obtained in the complete ICT training factor offer a mean of 2.02; with a standard deviation of 1.26; a minimum of 0 and a maximum of 5. Among the eight items that make up the factor (Table 2), a high difference is observed between the training received in the most essential uses of ICT, such as the use of the Internet, basic office automation, and other more advanced ones such as ICT applied to education (webs or blogs and multimedia tools). The highest levels of training are found in the use of the Internet, with an average of 3.36; while the lowest levels are observed in the training received in webs and blogs, with only 1.13; followed very closely by training in multimedia tools, which obtains an average of 1.16. Also noteworthy are the results in the mode, which is 5 in training in the use of the Internet and basic office automation, while in the rest of the items is 0; as well as the results of the median, which is 4 in the case of the first two items on the most basic elements and decreases in the rest with values of 2, 1 or 0. **[Table 2 near here]**

The use of ICTs is included in factor number four, structured around seven uses as a tool for: communication, management and administration, didactics for intervention, time management, collaborative work, dissemination and training. The most frequent uses are found in the use as a tool for communication and for management and administration, the least in time management. We present the different statistics of the items in Table 3. **[Table 3 near here]**

In the relationship between ICT training and use (Table 4), we find that those who have received less ICT training report average values for ICT use. On the other hand, those who report medium or high levels of ICT training show higher values in their use of ICTs.

Finally, a significant relationship is found between training received and ICT use with a Chi-square value of 54.736 and a significance of 0.000. **[Table 4 near here]**

The relationship between socio-labor variables and ICT training received was also studied to determine whether there were factors that could influence this relationship. Inference was established between the variables of gender, accumulated work experience and type

of contract (public, private employed and private self-employed) in the items referring to training. A significant relationship was obtained in six of the items for the type of contracting, in five of them for the work experience variable and in three for the gender variable, as shown in Table 5. **[Table 5 near here]**

3.2. Qualitative results

Taking the results obtained in the quantitative phase as a starting point, in which we found little knowledge and only very specific experiences with the use of ICTs, we developed the focus groups in which we tried to explain and examine the different aspects that we considered of interest for the study in greater depth. Reference is made to the codes in Table 1, to identify the authorship of the opinions.

3.2.1. Scarce technological training

The participants corroborated that their training in relation to ICT was scarce: '*I remember doing a course in ICT when I finished my degree*' (Ref 1.2). The training was related more to the educational response in direct care: 'I've always prioritized other topics or areas related to social education rather than technologies' (Ref. 1.1). Or in relation to the specificity of the group: 'Now that I deal with young offenders, it is clear that it is an issue... We already know that bullying is now on the rise due to the employment of certain new technologies' (Ref. 2.1).

We also find people who are highly trained in the field of ICTs, due to personal initiative or interest. 'ICT is something I like, something fulfilling that I'm passionate about [...] I always try to keep up to date with it, because in addition to working with the kids it is always important to be keep up with these things' (Ref. 4.2); 'Another of the topics that I've been working on over time has been the topic of technology' (Ref. 2.4).

3.2.2. Foundational bases that should shape ICT training in the social sphere

The diversity of groups within non-formal education must be considered in the design of training courses for socio-educational professionals: from children and young people to the elderly; people with professional experience, others who have always been unemployed; people with intellectual disabilities, mental illnesses; different social, educational, socio-healthcare environments, *etc*. This great diversity means that the training should be developed in such a way that the professionals can learn locally, *i.e.*, that the activities can be identified with the group with which they are working. Thus,

they commented that '…the courses should be, or the training should be, aimed at how to use these technologies in our profession and should be adapted to our field' (Ref 3.2); 'How to help, I don't know, what can you do so that people with severe mental health problems access such a tool' (Ref 1.1).

Let us recall that the digital divide limits the possibilities of development and e-inclusion: 'I, for example, see users with the most basic tools' (Ref 1.2). The lack of training for professionals implies the maintenance of this divide: 'It's true that if you know how to explain it, access to the Internet is, let's say, easy, you have public libraries, you have civic centers...' (Ref 3.2).

All the opinions suggested that the general approach to be taken in training should be positive. However, the dangers of the Internet were constantly and systematically stressed during the training processes that they attended: 'What I see a lot and hear a lot as an educator, on the risks that they face is that, very often, the message that families receive from the media, the message everywhere relates to the risks of using Instagram, the risks of having the profile in such a manner, or keeping it private. It's always risks, risks, risks' (Ref 2.2); 'We have always used it and it depends on the use you give it, it can lead to something positive or something negative. [...] The question is whether it's done safely, whether some guidelines are given...' (Ref. 4.3).

3.2.3. Sensitizing professionals

The emergence of ICT within a field where professionals are evolving in step with the social reality around them confronts us with a lack of definition of the tasks that can be performed: 'What can our role be when offering guidance on the use of these technologies?' (Ref 3.1). 'With so much technology we might have lost the ability to know exactly what our users can demand from us' (Ref 3.3). These opinions that seem to exclude personal intervention from digital intervention are surprising. Instead, they should be taken as two realities that coexist, thus not responding to one of them may entail not providing adequate attention to users.

Likewise, professionals must assume the role of ICT trainer with the users of their services, insisting on digital inclusion: 'And, above all, making a commitment to ensure

that the digital divide does not increase the social divide. Training must be fully updated.' (Ref 4.3).

In some groups, professionals are not the only reference. There are other people (parents, other responsible family members...) to whom professionals must also pay attention and respond with adequate training. 'The issue of the digital divide is, above all, observed in families at risk of exclusion in situations of vulnerability. Okay, I can have a cell phone at home, but I still won't have internet, WiFi to connect and to follow a class. I think we have to take this into account, and we are trying to do something in this regard from the educational perspective. But it's not easy, I think it's definitely not easy' (Ref. 3.2).

Technological awareness of social education professionals not only implies involvement in the use, but it also serves as a reference for future professionals: 'In this sense, in my professional development, I have been a tutor in a social education student practicum and I insist that social networks still have a lot to teach us (...) Because it's true that I use online training a lot and it seems very valid to me' (Ref 2.3).

However, we must recognize that some of the participants placed the focus on the importance of both ICT and work with social groups. 'Social education will be digital, or it won't exist' (Ref. 1.1).

3.2.4. Stereotypes: young people and ICT

There were several people who referred to the importance of working with young people whose digital proficiency was not necessarily sufficient knowledge to ensure proper use, and there were many contributions on aspects that should be worked on with them: '*(...)* Hey, what are you posting! Let's see this picture, be a little careful about what you post. You have to pay attention to your confidentiality' (Ref 3.1); 'You should remember that people often don't grasp your tone online, which might lead to misunderstandings, to conflicts' (Ref 3.2).

According to several participants, young people must also be properly trained and oriented, so that they can access the resources intended, in some cases, directly for them: 'We decided that all the students who wanted to receive vocational training had to go to a classroom during a recess and we told them to bring their cell phones. They lack initial

training in ICTs and don't know how to use them' (Ref 4.2); 'We don't want them to learn about technology (...), but to how to use it and how to manage this resource. We do try to help them learn other contents, other learning methods through ICTs and learn about different things that they currently do, but that are not appropriate for their age' (Ref 1.3).

3.2.5. Levels of training required

The demand for training in the use of ICTs was a constant theme in all the focus groups and among all the participants. We found that the training they had received was very general and was hardly systematic: 'When I need to learn about an app. I visit YouTube to get a broad outline of it' (Ref 1.3); 'I have not completed any further ICT training' (Ref 3.3); 'The truth is that I have not. I have tried training through ICT, but I've never received ICT training as such' (Ref 4.1).

Exceptionally, we found some with a master's degree, but always due to personal motivations. The importance of the ICT training needs that they presented was a majority opinion.

Based on the contributions of the participants, we can list the following levels of training:

 Basic training: Word, Excel... Technological literacy: surfing the web, IT menus,

  configurations...

 Advanced training: Proposals applicable to different groups: Creation of blogs,

  wikis. Social networks.

 Specialized training: Intervention programs (violence, alcoholism, drug

  addiction...)

3.2.6. Organization of the training

The diversity of the groups under consideration was highlighted in the focus groups and the wide range of organizations (contracts, schedules...) where the work activity was carried out was related to the diversity of the training resources. Therefore, the training actions in which they had participated were very different: initial training (during the academic degree), continuous training (unions, companies and administration); personal initiative (on-line, formal training, MOOC).

This complex reality hinders unification for progress in digital competence. We found only one possible proposal: '...promote it through schools' (Ref 3.1). Training should also be appropriate to professional needs: 'We would have to see if it really responds to training needs' (Ref 3.1). The difficulty of coordination was also highlighted due to the instability of the sector: 'What kind of job stability do you have in social services to get a particular sort of training? It all works through subsidies, today you're eligible, tomorrow you're not...' (Ref 4.3).

It was suggested that every training action should end with the communication and sharing of ideas, so that participants could learn from the experiences and plans for other groups and could adapt them to their own groups: 'Moments to contrast and share what we do. (...) Promote dialogue and discussion groups, a space where we can share what we do and don't do. It's even given me some ideas' (Ref 3.2).

For its development, a wide range of actions and training modalities are required so that professionals can access them and adapt them to their needs, availability, *etc.*.: Face-to-face training; e-training, congresses and conferences; initiatives to contact other professionals: blogs, websites....

In view of the complex training reality that we find in this professional group and taking as a reference the contributions of the participants, Figure 1 shows a possible structure through which an acceptable response could be provided.

[Figure 1 near here]

4. Discussion and conclusions

This research has successfully portrayed the reality of ICT training of non-formal education professionals in Spain, and we believe it could perfectly well be extrapolated to other international contexts, as we are dealing with the same complexity of social action (groups, resources...), and no substantial differences in ICT training have been found.

ICT have irrupted in society and professionals responsible for socio-educational interventions with various social groups must be prepared to perform their functions in a networked society (Taylor, 2017). Their training will not only lead to better use of the

technologies they use, but also of the users with whom they work (Hidalgo-Lavié & Lima-Fernández, 2018).

The results have shown that the training of these professionals in ICT is scarce and lacks coordination or continuity of action, as pointed out by Cabezas-González and Casillas-Martín (2021).

We agree with Cabero-Almenara and Martínez-Gimeno (2019) that training in ICT for education should be carried out gradually and continuously, adapting to the initial knowledge of the participants, and that it cannot be based on isolated actions.

Likewise, we agree with Recmanová and Vávrová (2018) who pointed out that this training should be subject to periodic evaluations adjusted to the needs of professionals. In our opinion, these evaluations should be complemented by a self-assessment tool that allows professionals to reflect on their knowledge and competencies at each moment. We detected a significant disadvantage with respect to formal education in which self-assessment instruments are built (Usart-Rodriguez et al, 2021), training plans are implemented, and planning tools are proposed (Dig CompEdu) that are adapted to each country.

The reality of each collective calls for training that is not only directed towards specific digital tools, but also towards knowing how and when to use them. For this reason, we consider it of interest to have a common reference framework at a state and European level, as in the formal education environment. These proposals could guide training actions and provide coordination, especially if we take into account the complexity of the social sector (Taylor, 2017) and the difficulties that the most vulnerable segments of the population face, due to exclusion in access to technology (Raya-Díez, 2018).

The need for a benchmark becomes even more evident taking into account the firm commitment to ICT in the social field within the European Union, through measures such as the SIP package (Misuraca *et al*., 2016; Misuraca & Pasi, 2019), and due to the new approaches towards socio-educational care in a virtual or semi-presential manner (Wilkerson *et al*., 2020) that have been accelerated as a consequence of the COVID-19 pandemic and that have revealed the huge imbalances in digital equity (Greenhow et al., 2020).

At the supranational level, we believe it should be the European Union who leads this initiative, as it does so in formal education. In Spain, professional associations could lead, as they are the umbrella organizations for the groups of workers where proposals are centralized.

ICT training and the development of digital competence should begin in the initial professional training stages. The results of our work on the youngest professionals is aligned with Cabezas-González and Casillas-Martín (2017), in so far as it highlights the need for training at the university level. Digital competence cannot be associated with simple age-related arguments and with being a user of an electronic device, an issue that has been questioned for some time (Kirschner & Bruyckerec, 2017).

Among the practices to be improved are the design and the development of these training actions that take into account the risks that are encountered in a general way (common to the rest of the population) and those of each collective (cyberbullying among young people, identity theft among older people, hacking and Internet scams …) and to raise awareness of how they should respond to them. All of it must be implemented, not through theoretical proposals far from the reality of the collective, but on the basis of the development of *key competences for lifelong learning* (Council of the European Union, 2018) which many young people and adults, mainly from groups at risk of social exclusion, have not accessed. We must also be aware that inaction, or inadequate training can mean that the digital divide adds to the social divide.

Finally, our findings have shown that higher levels of ICT training are associated with higher levels of technological usage. If, as we have noted above, the political administrations, and especially the needs of the current situation, are committed to innovation with ICTs in the social sphere, there should also be a correspondence in the training offered to professionals. We should not forget that some of the complaints collected in our study referring to the scarcity and inadequacy of training have already appeared in previous works (Eslava Suanes et al., 2018; Martínez-Pérez & Lezcano-Barbero, 2020a).

The main conclusions we have drawn from our work are:

1. ICT training in the field of non-formal education is scarce and there is a need to enlarge it, in order to adapt to the current socio-educational intervention.

2. ICT training should be understood as a *continuum* that begins with the initial education of professionals and lasts throughout their professional careers.

3. There is a need for coordination and a framework of reference for the development of ICT training. Training should be promoted by public administrations and professional organizations. The latter should act as the focal point for coordinating actions to provide training that offers continuity and coherent and appropriate development.

4. The training offer should be broad, should cover different levels of specialization, and should be adapted to the intervention with the different target groups of social education.

5. Given the diversity of jobs, a self-assessment tool is needed to enable professionals to gain a clear picture of their situation and to guide their training accordingly.

5. Funding details

6. Disclosure Statement

The authors report no conflict of interest.

7. References

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Table 1.

Focus group participants.

Focus number	Ref.	Gender	Region	Areas of intervention	Length
1	1.1	Male	Madrid	Homeless people	86 minutes
	1.2	Female	Castile and Leon	Migration and refugees	
	1.3	Female	Galicia	Protection of minors	
2	2.1	Male	Castile and Leon	Minors with judicial measures and professor	65 minutes
	2.2	Female	Cantabria	Protection of minors	
	2.3	Female	Castile and Leon	Rural Development.	
	2.4	Male	Catalonia	Functional diversity and dependence. Professor	
3	3.1	Male	Basque Country	Street education and university professor	93 minutes
	3.2	Male	Asturias	Drug addiction and young people	
	3.3	Male	Castile and Leon	Prison educator	
4	4.1	Female	Castile and Leon	Ethnic minorities and social services	96 minutes
	4.2	Male	Extremadura	Social Educator in Secondary Highschool	
	4.3	Female	Andalusia	Rural area.	

Table 2.

ICT training received

	Internet use	Basic office automation	Advanced office automation	Webs	Blogs	Social networks	Multi-media	ICT applied to education
Media	3.36	3.33	2.29	1.13	1.139	1.9	1.16	1.62
Median	4	4	2	0	1	2	0	1
Mode	5	5	0	0	0	0	0	0
Standard deviation	1.7	1.64	1.68	1.46	1.64	1.86	1.48	2
Variance	2.88	2.69	2.82	2.14	2.68	3.48	2.2	3
Minimum	0	0	0	0	0	0	0	0
Maximum	5	5	5	5	5	5	5	5

Table 3.

Uses of ICTs in professional action

	Communication	Management and admin.	Didactic tool	Time management	Collaborative work	Dissemination	Training
Media	3.96	3.96	3.26	2.88	3.34	3.27	3.44
Median	4	4	3	3	4	4	4
Mode	5	5	3	3	4	5	5
Standard deviation	1.24	1.25	1.44	1.54	1.46	1.73	1.57
Variance	1.5	1.55	2.07	2.4	2.14	3	2.45
Minimum	0	0	0	0	0	0	0
Maximum	5	5	5	5	5	5	5

Table 4.

Relationship between ICT uses, and level of training received in ICTs

ICT training received				
Uses of ICT		Low	Medium	High
	Low	15.10%	1.90%	2.20%
	Medium	62.30%	52.40%	39.10%
	High	22.60%	45.60%	58.70%

Table 5.

Relationship between ICT training and socio-labor variables

Training received in...	Gender		Cumulative work experience		Type of contract	
	Value	Significance	Value	Significance	Value	Significance
Internet use	5.153	0.076	18.971	0.004	23.35	0.00
Basic office automation	8.206	0.017	19.517	0.003	5.58	0.233
Advanced office automation	3.857	0.145	13.175	0.04	9.253	0.55
Web creation and editing	9.277	0.01	15.197	0.019	20.452	0.00
Blog creation and editing	5.895	0.052	8.164	0.226	41.327	0.00
Social networks	3.793	0.15	16.29	0.012	28.109	0.00
Multimedia	16.894	0.00	8.312	0.216	23.69	0.00
ICT applied to education	5.153	0.076	9.857	0.131	15.601	0.004

Figure 1.

Administration

Training

Professional associations

Awareness of professionals on

Training coordination

Initial training: universities

Form. Continuous training: unions

Proposal design

On-site training

E-learning
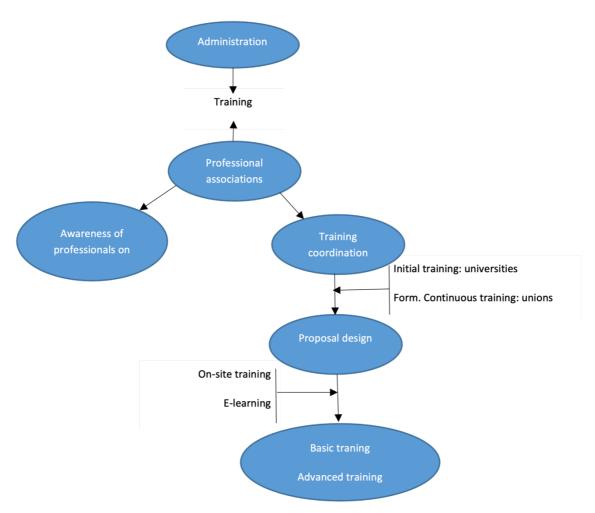
Basic traning

Advanced training

Figure caption:

Figure 1. Proposal for the coordination of actions to improve ICT training of non-formal education professionals