Participation and digital non-formal learning environments

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Abstract

Participation is a key issue in understanding didactic dynamics. On the one hand, youth participatory cultures are described as incorporating gaming, multitasking, transmedia navigation and networking; on the other hand, the pre-digital meaning of participation retains a political value related to individual commitment for the common good and to socio-constructivist learning design. There is a connection among community, participation and learning, as the tradition of communities of practice highlights (Wenger, 1998, 2000).

The present article introduces and discusses the results of the research focusing on the course for civil protection operators engaged in voluntary public assistance service. The course was delivered online following the lockdown measures enacted in response to the SARS-CoV-2 pandemic. Three specific dimensions were examined: a) the trainer’s role; b) group dynamics and c) online participation. It was possible to compare these data with those collected in occasion of other training courses delivered face to face before the 2020 healthcare emergency.

The research was conducted as a multimethod case study using quantitative and qualitative tools.

Keywords: informal learning, participation, online learning, design learning, trainer.

Introduction

The present work introduces and discusses the results of the research focusing on the course for Operators of the National Mobile Column of Civil Protection (OCN) (Operatore Colonna Mobile Nazionale di protezione civile [OCN]) organised by the National Association of Public Assistance bodies (ANPAS).

The course typically provides baseline training to volunteers in civil protection who can be deployed in case of national emergencies. In the past period 2012–2020, approximately 8,000 volunteers were trained in 400 face-to-face courses. The final evaluation of the course is usually carried out using quantitative methods and tools, in consideration of the following reasons: a) the course being implemented at a national scale, the results need to be easily comparable; b) the trainers do not have any specific competences in docimology or evaluation, since they are volunteers with different professional profiles and skills; c) the structured and semi-structured feedback that is collected ongoing represents the main evaluation tool, while the final test has a rather formal function.

In 2020, in compliance with the measures enacted to counter the coronavirus disease 2019 (COVID-19) pandemic, the original course was redesigned, so that it could be accessed in a digital environment, adopting the flipped model (Bergmann, Sams, 2012; Biscaro, Maglioni, 2014) with asynchronous self-directed learning (Moodle) and synchronous workshop sessions delivered on videoconferencing platforms. The synchronous activities were organised with the aim of ensuring experiential learning, and thus supporting constant and targeted feedback (Hattie, 2009).

The most remarkable feature of the OCN course is the level of participation and collaboration, consistently with what learning experiences generally unfold (Spinelli, 2019). Participation is indeed an element of the association’s identity, being a part of the voluntary movement. Therefore, the methodologies adopted in the course are meant to facilitate participation as a distinctive experience. Not only does the course’s overall aim consist in achieving the learning objectives, but it also has institutional aims in consideration of the fact that learning occurring by means of participatory processes, modes and techniques is part and parcel of the association’s life, as declared in their statutes. As highlighted by literature (Spinelli, 2016), for voluntary organisations, training is characterised by values, aims and learning methodologies that
are inherently interconnected and demand for an underlying coherence which affects the organisation’s credibility. The course is to be considered as a non-formal learning experience and not as a vocational training path; it is embedded in the programmes for human resources development shared among the voluntary organisations which are members of ANPAS.

After the OCN course was redesigned in 2021 for digital delivery, it has been a priority to keep participation at a high level, although in a totally changed setting. Up to June 2021, 22 trainers delivered 16 courses involving approximately 300 participants. It is important to stress the fact that the trainers are typically volunteers of different ages, with different educational backgrounds and professional profiles. Within their association, in order to become OCN instructors, they attended a trainer’s training path, comprising also basic methodological preparation. Existing literature on the relationship between teachers and their willingness to use digital technologies shows how motivation to change is influenced by professionals’ expectations of themselves, the change in the system and the expected outcomes (Hargreaves et al., 2010). A high level of expectations and the feeling that change is positive for teachers, students and the organisation increase, on the one hand, the chances that the process will be successful (Fullan, 2011) and, on the other hand, the way the teacher’s role and pedagogical attitudes influence the use of technologies and the development of a Digital Pedagogy (Wadmany, Kliachko, 2014). However, the specificity of this study concerns the nature of the organisation which is a voluntary association and not a school, with characteristics much more similar to non-formal and informal learning environments. As for the third sector, there are no studies investigating situations with similar characteristics. The mastery of digital teaching skills, perception of self-efficacy and influence of attitudes are interrelated elements for adult educators in out-of-school contexts (Bonnes et al., 2020).

1. Method

The present research has an evaluative aim: it is structured as a case study (Trinchero, 2004) and its main observation objects concern the implications of the digital environment on a) the trainer’s role, b) trainers’ and participants’ perceptions about the group and c) the enhancing/inhibiting factors that affect participation in synchronous learning activities. Data collection was conducted in a multimethod way (Trinchero, 2004): there were quantitative surveys involving trainers and participants in face-to-face and online sessions, and there were structured qualitative interviews with the project staff and with a sample of the trainers and participants attending the online course (Tab. 1).

At the same time, standard learner satisfaction questionnaires were used to collect data for all the courses (face to face and online). While the return rate for the satisfaction questionnaires was 100%, for the other tools, the rate was much lower, at approximately 50%. It was also possible to compare the participants’ final learning outcomes obtained in the original face-to-face course and in the online course, although some differences need to be considered with respect to the number of items and the modes of administering the survey tool.

<table>
<thead>
<tr>
<th>Table 1. Number and modalities of data collection.</th>
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<tr>
<td>OCN – face to face</td>
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<td>Questionnaires</td>
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<td>Learning evaluation questionnaires</td>
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<tr>
<td>OCN – online</td>
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<tr>
<td>Questionnaires</td>
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<tr>
<td>Learning evaluation questionnaires</td>
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<tr>
<td>Final satisfaction questionnaires</td>
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<td>Trainers</td>
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<td>Interviews</td>
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<td>Project staff</td>
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<tr>
<td>Trainers</td>
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<tr>
<td>Participants</td>
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*The participants in the face-to-face course were sampled considering the following characteristics: having completed the preparatory training about safety and attendance in the classroom-based course held between January 2019 and December 2020 (most recent course: 05/12/2020; less recent course: 12/01/2019). Based on these preliminary criteria, the sampling was stratified and casual (Trinchero, 2004, p. 28).
2. Discussion

The research describes an experience with lights and shadows. On the one hand, the participants’ satisfaction questionnaires show very high values, and the specific surveys reveal a general positive attitude towards collaboration, participation and a few emotional aspects of the online workshops. On the other hand, the trainers’ experience appears to be more critical, with discrepancies between the results of the questionnaires and of the interviews.

To begin with, here are some preliminary data:

- Different age classes did not significantly affect results concerning the digital/face-to-face mode of delivery of the training courses. However, the digital mode was better accessed by those volunteers who had been in the association for less than 1 year (their attendance reached 28.3%, compared to 1.1% for other volunteers).
- Participants living on the islands (e.g. Sardinia and Sicily) overlooked the digital course, thus generating an uneven geographical distribution, although the course had a clearly interregional dimension.
- The ratio of male participants was higher in the face-to-face course (70.7%) than in the digital one (53.3%). Female participants preferred instead the digital mode.
- As showed by the learning evaluation questionnaires, in the face-to-face course, the gap between initial and final learning outcomes was smaller. This result may depend on different factors, which will be discussed further on.
- The overall satisfaction for the training provision was rather high (Fig. 1): the learning methodologies were positively valued, comprising the learning resources and the Moodle-supported asynchronous sessions. The relational dimensions incorporating learning purposes were also positively appraised with respect to a variety of components, such as the trainers’ inputs and approach, and the effective participation in the team sessions during the synchronous laboratories.

![Fig. 1. Satisfaction questionnaires (areas of interest).](image)

As regards the participants’ preference about the training delivery mode, the respondents expressed varied feedback: 50% of them declared that they would prefer a face-to-face course, 17% preferred the digital mode, 24% could not express any preference and 9% were not able to provide any answer. When adding free comments, the respondents often expressed ‘positive surprise’ for the learning experience, admitting having rather low expectations. Thus, while confirming their aspiration to physically meet with the other learners in the classroom, many respondents recognised and seized the potentiality of the digital learning solutions: several sketchy statements refer to their pros and cons. It is worth mentioning that many respondents who preferred the face-to-face mode also acknowledged the usefulness and consistency of the digital provision. Among the different pros, some respondents also highlighted the possibility to meet with participants from other parts of the country; this appears to be a valuable distinctive feature since the OCN courses are traditionally organised at a local level involving a single association or associations from the same regional territory.

Some questionnaire items were specifically aimed at collecting participants’ feedback about two distinguishing issues that characterise the operations, comprising training, of ANPAS and of its associates: collaboration within the working groups and participation.

The respondents declared that they

- had the opportunity to get to know the other participants (some of the activities carried out in the laboratories are designed exactly for this purpose);
- succeeded to work in a constructive way in the working groups (in the plenary sessions and in the thematic rooms);
- had the chance to discuss with the trainers and the other participants;
- had the feeling they had been sharing the same common objectives with the other participants and
- could feel to be part of the group.

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Below, the results collected from the participants in the face-to-face and online courses are presented (Fig. 2):

![Graph showing comparison of participants' perception about group activation in face-to-face and online modes.]

Fig. 2. Comparison of the participants' perception about the group's activation in the face-to-face and online modes.

As shown in Table 2, it is to be remarked that respondents highlighted the ‘usefulness’ of attending the face-to-face course, whereas they praised the ‘participation’ and ‘collaboration’ dimensions for the online course.

<table>
<thead>
<tr>
<th></th>
<th>OCN online</th>
<th>OCN face to face</th>
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<tbody>
<tr>
<td>1. Participatory</td>
<td></td>
<td>1. Useful</td>
</tr>
<tr>
<td>2. Collaborative</td>
<td></td>
<td>2. Participatory</td>
</tr>
<tr>
<td>3. Useful</td>
<td>3. Collaborative</td>
<td></td>
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</tbody>
</table>

As regards the learning outcomes, two factors need to be taken into account: a) the participants’ perception of their level of knowledge and skills (their ‘readiness’) needed in case of an emergency, implying the deployment of the National Mobile Column of civil protection and b) the results of the learning evaluation questionnaires which are partly comparable with those collected for the face-to-face course.

As for point a, the participants declared that they knew ‘enough’ of the national civil protection system, that they felt ready for a prompt deployment and that the course contributed positively to their preparation and current condition. Their expectations vis-à-vis the overall learning outcomes were also met (‘I learned what I expected to’) (Fig. 3):

![Bar chart showing expectations met for the online course (I learned what I expected to).]

Fig. 3. Expectations met for the online course (I learned what I expected to).

As for point b, referring to the learning outcomes, the participants seemed indeed to be faring better, although the observed improvement was less evident than the achievements reached in the face-to-face courses.
Table 3. Difference between the learning evaluation questionnaires administered pre-course and post-course, for face-to-face and online courses.

<table>
<thead>
<tr>
<th></th>
<th>Average of the results collected in the pre-course questionnaires</th>
<th>Average of the results collected in the post-course questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face course</td>
<td>10.30</td>
<td>12.44</td>
</tr>
<tr>
<td>Online course</td>
<td>25.35</td>
<td>29</td>
</tr>
</tbody>
</table>

It is worth mentioning that the questionnaire used for the digital course contained more items. In addition, for the research purposes, we compared the pre-course questionnaires administered on Moodle with a post-course questionnaire for the synchronous sessions (Tab. 3).

2.1 The trainers

The trainers’ experience was rather diversified, as shown in Fig. 4. Their feedback was generally positive. The majority of respondents declared that the redesigned course still allowed participatory processes as the face-to-face course had already ensured: 14% of respondents ‘totally agreed’, 50% ‘agreed’, 21.4% ‘quite agreed’, while only 14.3% ‘did not agree’. The majority of respondents, although with some differences related to the age class, also declared a general satisfaction about the possibility to provide feedback, about the participation in the debriefing sessions and about the possibility to join group working.

![Fig. 4. The trainers’ perceptions and the differences for participants aged +50.](image)

It also resulted that most trainers would have rather delivered the course face to face, unlike the participants (Fig. 5).

![Fig. 5. Trainers’ preferences between the face to face and the online modes of delivery.](image)
The main words that the trainers used to describe their learning experience on the digital platform are represented in the following cloud:

![Image of word cloud]

Fig. 6. The main words that the trainers used to describe their learning experience on the digital platform.

A recurrent element that appeared to also influence the positive appraisals recorded in other domains was the general satisfaction for coping with an extraordinary emergency situation never experienced before. However, when digging into each dimension of analysis using the qualitative interviews, a different and rather contradictory scenario emerged. According to the interviewees, the trainers’ role was perceived as ‘weakened’, with an ‘irrelevant’ role in the classroom since ‘in the digital delivery mode the trainer’s remit is limited to time management’ being a plain ‘executor’ (in the quotation marks, the interviewees’ words).

As a whole, there was a discrepancy between the participants’ and the trainers’ perceptions about the course outcomes. While the former seemed more satisfied and open to adopt the digital solutions, the latter appeared more willing to resume the classroom-based, face-to-face mode.

The trainers’ evaluation was ambivalent: on the one hand, they expressed their strong desire to re-establish a training relationship based on face-to-face interactions which were not mediated by digital technologies; on the other hand, they expressed positive comments about the level of participation and collaboration experienced in the digital classroom. There emerges the following contradiction: even though the relational dimension at individual and group levels (implying physical, emotional and cognitive relations) is recurrently used to explain the preference and the need for the classroom-based face-to-face mode, this same dimension does not seem to represent a problem in the digital learning experience.

In this respect, it is very interesting to observe to what extent the mainstreaming narrative still refers to biased representations and preconceptions already in the public discourse, instead of considering the actual experience analytically.

The need to rearrange the course and the broader training provision (in terms of structure, schedule, activity management) in a more centralised way did affect the trainers’ work, as well as the operations of other organisational units, such as the course secretary assistants.

The main limitation of this work is the comparison of two situations evolved over time but not designed for an experimental research design. This provides very useful information, but some conclusions need to be further investigated, as in the case of the difference in learning outcomes between face-to-face and online courses or as for the expectations of trainers about the use of technology.

Concluding remarks

Traditionally, training in the voluntary sector has supported the diffusion and consolidation of participatory processes along the so-called ‘ladder of participation’ covering a spectrum from the lower level of information to the higher level of collective definition of policies (Nanz, Fritsche, 2012; Rivoltella, 2021). Training is the space where volunteers get ready to perform specific tasks and where they can join participatory processes. The shift of training activities to the online mode has indeed represented, and still is a crucial challenge affecting the circulation of phenomenological signals of the ‘social presence’ that are needed to mediate learning relationships (Moore, 1995).

Participation is a key issue in understanding didactic dynamics. On the one hand, youth participatory cultures are described as incorporating gaming, multitasking, transmedia navigation and networking (Jenkins et al., 2009); on the other hand, the pre-digital meaning of participation retains a political value related to individual commitment for the common good and to socio-constructivist learning design. The connection among community, participation and learning, already tackled by the beacon research about communities of practice (Wenger, 1998, 2000; Smith et al., 2017) needs to be reconsidered so as to understand how to encourage and facilitate the access of different and vast audiences to digital participatory environments.
The audience of trainers seems to be particularly suspicious, plausibly because they suffer from not being able to physically use participatory techniques to facilitate the training processes.

This fact can have several causes: for example, the difficulty in using technologies perceived as a ‘barrier’; the change of role from an autonomous and protagonist trainer in face-to-face contexts to an online trainer linked to more severe deadlines and to a ‘directing’ role; and the absence of direct physical and visual contact. It should also be considered that the trainers who chose to carry out online training were few in comparison to the total number of trainers working face to face (22 out of a total of about 60 who had given their availability). Since this data is very interesting to understand the role that trainers play in the online environment, it will be necessary to investigate the self-perceptions of the whole group of trainers regarding the use of digital technologies (Niederhauser, Perkmen, 2008). In fact, it seems to be a useful element to understand how this specific target group is ready to use technologies.

The differences emerging across age groups suggest such an interpretation; indeed, these data require further analysis to better focus on the trainers’ changing role.

The partial shift of the training activities to the digital environment causes contradictory reactions: whereas the potential of online learning is fully understood, especially in terms of high accessibility, as proved during the healthcare emergency when spatial and time constraints had to be overcome, yet some roles feel weakened (i.e. the trainers) and some functions seem diminished (i.e. non-verbal feedback).

The overall evaluation is nevertheless positive, also with respect to the cognitive, relational and participatory aspects. Unfortunately, there are no data on the perception of the trainer’s role during face-to-face courses, and therefore, it is not possible to investigate any changes in the transfer to online courses.

The learning objectives of the ANPAS training provision refer to value-related and cognitive domains; the proposed training activities aim at creating a shared climate, an atmosphere, an experience (Demetrio, 2020) that seem to be much more effective for participants’ learning than for trainers. Certainly, all the parties in the OCN training (participants, trainers and staff) agree on integrating the face-to-face and the digital delivery modes and systems, experimenting hybrid and blended forms that can fully exploit the potential of each setting.

It is to be stressed that this choice must be based on a medium-term strategic vision and be further discussed by the responsible governing bodies.

In the coming months and years, the voluntary sector will surely need to thoroughly explore a new paradigm that can influence in unexpected ways the associations’ design intelligence, namely, their capacity to design innovative democratic projects and initiatives (Manzini, 2018) and the volunteers’ media empowerment (Carenzio et al., 2021). This renewed approach should be promoted, so as to support volunteers’ fully fledged citizenship and the growth of the associations’ social capital and added value.

Bringing these reflections further, perspective research deeds should better focus on the trainers’ changing role and self-perception when partly or totally shifting from face-to-face to digital learning. This appears as a key point of attention that can directly affect the success of any training provision.

References


