

Coworking: nuovi luoghi per l'educazione e l'apprendimento?

Coworking: new environments for education and learning?

Massimiliano Costa

Associate professor of Education | Department of Philology and Cultural Heritage | University Cà Foscari, Venezia (Italy) | maxcosta@unive.it

Rosa Cera

Assistant professor of Education | Department of Human Science | University of Foggia (Italy) | rosa.cera@unifg.it

abstract

The questions of where to work and learn, how and especially with whom represent a theme that involves coworking freelancers, but also employees, students and educators. The main aim of this research is to analyze the emerging link between transformative learning and structured coworking environments. The specific objectives are to identify implicit and explicit strategies of formal and informal learning within new working environments. In addition, we intend to investigate the kind of competences that coworkers acquire in relation to the European Recommendation (2018) and the type of education governance developed in the context of local and global interactions. The research method used encompasses qualitative and quantitative elements. Twenty coworking coordinators are submitted to a semi-structured interview and have compiled a grid on the skills acquired by coworkers. Sampling is intentional: among the different kinds of coworking, only those with educational functions have been selected.

Keywords: coworking, environments for education, transformative learning, informal learning, competences

Dove lavorare e imparare, come e soprattutto con chi, un tema che coinvolge i liberi professionisti nel *coworking*, ma anche dipendenti, studenti ed educatori. Lo scopo principale di questa ricerca è di analizzare il legame emergente tra l'apprendimento trasformativo e gli ambienti di *coworking* strutturati. Gli obiettivi specifici sono identificare strategie implicite ed esplicite di apprendimento formale e informale

The Research object of article was jointly decided by the authors and all parts of article jointly revised. The following paragraphs are specifically attributable: Costa (Introduction and §§:1- 2 - 3- 5 - 6.2 and Conclusion). Cera (Introduction and §§: 3 - 4 - 6.1 and limits of the Research).

all'interno dei nuovi ambienti di lavoro. Inoltre, intendiamo indagare sul tipo di competenze che i *coworkers* acquisiscono anche in relazione alla Raccomandazione europea (2018), e il tipo di governance dell'istruzione sviluppata con i contesti di interazione locale e globale. È stata fatta un'intervista semi-strutturata a venti coordinatori di *coworking*, i quali hanno anche compilato una griglia sulle competenze acquisite dai coworkers. Il campionamento è intenzionale: tra i diversi tipi di *coworking*, sono stati selezionati solo quelli con funzioni educative.

Parole chiave: *coworking*, ambienti per l'educazione, apprendimento trasformativo, apprendimento informale, competenze

Introduction

Coworking (from now on identified as CoW) are spaces designed to meet the needs of the new generation, defined as Y/Z and millennial, creative and inclusive working environments. They are shared environments where different types of knowledge professionals, mostly freelance, experts in the vast field of the knowledge industry, work with the support of technology (Botsman, Rogers, 2011; Rief, Stiefel, Weiss, 2016).

CoW becomes a generative space of “environments of/for learning”, in which the ecological dimension of learning can also be intentionally designed (setting) to respond to training needs, through pedagogical strategies and training devices aimed at promoting, supporting, directing and developing learning processes (Barricelli, 2016). This working space becomes a set of integrated educational environments or spaces in which formal and informal learning coexist. This leads us to qualify it pedagogically starting from the interactions between formal, non-formal and informal contexts that it expresses. The construction of skills is thus generated by everyday social-communicative practices in which the experiences built in the social relations of CoW and especially the productive practices of cultural and symbolic artefacts give personalizing and empathic sense to knowledge, skills and competences to share and develop together for a common educational project (Galliani, 2012).

In our survey we paid, for example, close attention to selecting the CoW to investigate, precisely because the purpose of our work was to understand the educational functions and the learning methods present in these environments. Among the ways of learning, learning to learn from each other in an informal way is one of the most important opportunities that CoW offers to coworkers, an opportunity that is often flanked and

supported by collective events. These environments act as a communication channel for the new generation and the social relationships that in these spaces are born and intertwine in a totally natural and spontaneous way, favor the contamination between different disciplines, which, nourish each other and create new and original ideas (Curaoglu, Demirbas, 2017). The originality of the ideas is due precisely to the heterogeneity of coworkers, students, lawyers, managers, women and men of the financial world, each with their own educational history, their own background, which they compare and put their skills at the disposal of others. For example, students in CoW learn to co-learn within different learning groups or communities (Wenger, 2006), in non-institutional environments and at different times.

The way in which CoW spaces are designed foster, therefore, cooperative learning (Loyens, Gijbels, 2008; Matthews, Andrews, Adams, 2011), and considering the importance of the educational implications of this learning, even universities are creating, within them, CoW environments. In fact, some studies have shown that for students the way in which learning spaces are organized is important, environments where most of the time is not limited to studying but also to talking, eating, socializing and exchanging information (Björklund, Clavert, Kirjavainen, Laakso, Luukkonen, 2011; Kojo, Keltinkangas, Hänninen, 2013). The CoW environments that students prefer are, therefore, those that facilitate networking, enable social learning and promote innovation.

The results of our survey have, in fact, confirmed that CoW is a community based on communication, which prefers networking, smart working, the development of creative ideas and the contamination between different professional skills. An environment that is certainly innovative where competences proliferate, but where at the same time one risks losing oneself and not being adequately oriented towards the attainment of one's own educational, working and learning objectives (Jakonen, Kivinen, Salovaara, Hirkman, 2017).

1. Research Aims

The *overall aim* of the study reported here is to analyze the link between a new way of learning, transformative learning and CoW environments (Bezzi, 2015). The *specific aims* of the study are of two types. The first goal is to identify implicit and explicit strategies for formal and informal

learning within new work environments. Secondly, the study aims to investigate the type of skills that coworkers acquire also in relation to the Council Recommendation (2018).

2. Research Hypothesis

The question, from which our investigation originated, “can coworking be an educational environment?” was formulated following the diffusion, more and more frequent in recent years, of these new spaces much loved and frequented by the youngest, but also by freelancers and independent workers (Colleoni, Arvidsson, 2014; Spinuzzi, 2012). In the CoW space, the process of building competence for action is conceived and analyzed both in the individual elements that compose it, and in the way in which these elements mutually influence each other interactively and within a dialogic and relational, almost osmotic, process with the environment both internal and external to the CoW.

The hypothesis at the basis of our investigation, according to which CoW has not only changed the way of thinking about work and working, but also the way of doing training, finds justification in the relevant scientific literature (Bilandzic, Foth, 2017; Šviráková, Soukalová, Bedná, Danko, 2014). If CoW has changed the way of doing training and the concept of work, then there is also the hypothesis according to which the type of skills that coworkers acquire in these environments have changed. A new way of training that favors a new and different way of learning and applying the skills and knowledge learned to the world of work.

3. Methods

The research method we have used is mixed (Mortari, 2007), qualitative and quantitative, since investigative tools have been used such as the semi-structured interview which has thoroughly investigated the topic, object of study, and very structured tools such as the grid that has, instead, helped to identify the skills acquired by coworkers. The combination of quantitative and qualitative methods in the choice of research tools as in the heuristic data processing phase allowed us on the one hand to precisely identify the skills, and on the other to investigate the context of the educational phenomenon in CoW and the human and social aspect of education (Caruth,

2013). The method of coding the data obtained from the questions with an open answer, present in the interview, consisted of the identification of the fundamental conceptual categories and in identifying the salient extracts that are more representative and coherent with the objectives of the research, taken from the respondents' open answers. Each selected salient extract has been inserted into a specific conceptual category and the numbers in brackets, next to the categories in table 2, indicate precisely the frequency with which each category has recourse. Given the complexity of the survey aims, which consist of understanding the role and educational value of CoW and at the same time the educational impact of the activities carried out by CoW in the territory, the use of mixed methods has allowed us to deepen objective and subjective aspects of educating. Subjective elements are aspects of the problem that can only be understood by listening to and interpreting the experiences of those who know and live CoW daily such as the coordinators that we interviewed; while the objective elements, such as skills, acquired in CoW, can only be identified through the administration of precise and structured tools, such as the grid. Furthermore, the combination of mixed methods guaranteed the internal and external validity of the research: the internal validity was guaranteed by the correspondence between the data collected and the research problem (Ponce, Pagán-Maldonado, 2015); while external validity refers to the fact that the data of this study can also be used in other studies and applied to other more numerous samples (Cook, Campbell, 1979).

Research Sample

We interviewed twenty coordinators and CoW managers, in order to investigate the training purposes and the organization of CoW spaces. The sampling method used in the selection of CoW coordinators to be interviewed only partly was random: only the coworkers who were involved in training activities were chosen. Among the selected coworkers, only the coordinators who voluntarily offered to participate in the survey were interviewed. It was considered advisable not to interview, more than 20 coordinators in order to carry out in-depth interviews and spend more time listening to the interviewees and administering the grid. Among the twenty coworkers examined, only five incubate startups and take care of their growth and development by offering advice on business projects and management, or specific training courses on digital and fablab. In addition, ten of the twenty coworkers we visited offer free advice

on business projects and on the issues of management to all the coworkers who habitually frequent a specific CoW; while twelve coworkers organize events and meetings on topics such as marketing or business open not only to coworkers but also to the whole territory.

Name	Startup incubator	Professional training courses	Courses on personal care	Master	Courses for designers	Laboratories	Courses on communication	School/ work alternation	Consulting for business	Courses on digital and fablab	Courses on short films and editing	Events	Urban retraining courses
Copernico									/			/	
Impact Hub	/							/	/	/		/	
Talent Garden	/	/		/				/	/	/		/	
Qf			/									/	
Donatello									/			/	
Yoroom				/	/				/			/	/
InCowork					/			/				/	
Slam		/				/					/		
Techinnova	/					/			/	/			
Flexworking		/					/			/		/	
Lino's&Co					/	/	/	/				/	
Ideo								/	/	/			
CO+					/			/		/	/	/	
Nova		/				/	/						/
Tag Padova	/			/				/	/	/	/	/	
Oblò			/									/	
Terzo Piano						/				/			
Ground Control			/						/	/		/	
CoopUp	/	/							/	/		/	
Megahub		/						/		/		/	

Tab. 1 Coworking activities

Procedure

The research tools were administered between the months of September and December 2018. Before to beginning the survey, the code of ethics was sent to the coordinators of the CoW, in which it is attested that the project in question is ethically acceptable (Ethics in Horizon 2020). Furthermore, in the code it is specified that the subjects were interviewed on a voluntary basis and that their names are protected by privacy legislation and finally that the results of the research will be made available to the subjects interviewed. Each interviewee was informed about the topics that would be the subject of the interview and the aims of the research project. After the explicit consent of the coordinators, it was possible to start the interviews and the grid administration. Each interview, of face-to-face type, had the duration of roughly 48 minutes and at the end of the administration of the instruments, the heuristic phase of the collected data processing began. The greatest difficulty was to agree with coworking coordinators on the day of the interview, as they were very busy organizing and planning coworkers' daily activities.

Instruments

Two different research tools were administered: the semi-structured interview and the grid. The semi-structured interview, face to face, is considered suitable for the exploratory nature of the research project (Trincherò, 2002; Milani, Pegoraro, 2011), as is our survey. The interview consists of six questions each with an open answer. For example, some questions aim at exploring the relationship between training processes and work and the relationship between training and space in CoW, while others still intend to understand how CoW involves the territory in their initiatives. The interviewees were able to express themselves freely, thus also bringing out what had not been foreseen in the planning of the research project. The grid, includes, instead, a list of key competences for lifelong learning, as expected in the Council Recommendation of 2018. Among the listed skills, respondents were asked to classify the fifteen most important according to an increasing order (from 1 least important to 15 most important) that coworkers acquire in their CoW. Unlike the list of competences present in the 2006 Recommendations, the attention in this new 2018 list has been placed above all on entrepreneurial, social and civic skills.

4. Qualitative data analyses

In the presentation and interpretation of the data collected through the interviews, the conceptual categories represent the important concepts that emerged from questions with open answers, and the salient extracts are short extracts taken from the answers received from the interviewees. Each salient extract has been carefully selected based on representativeness and consistency with the research objectives. Each salient extract corresponds to a specific conceptual category (Tab. 2).

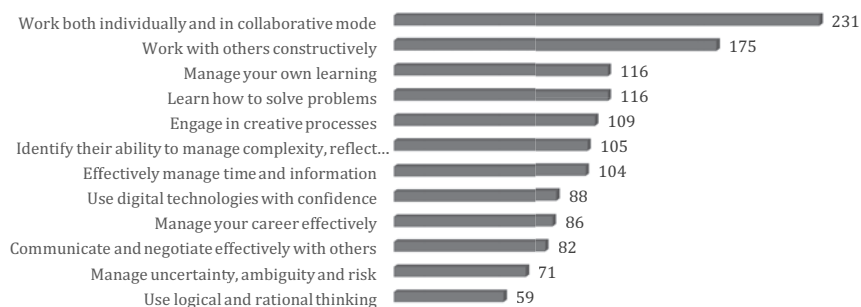
Categories	Salient extract
Learn in a formal and informal way (13)	<i>“We offer an informal learning space but an incentive to develop innovation skills also through courses and workshops”.</i>
Learn only in informal way (7)	<i>“Through the exchange with other coworkers there may be formative moments or changes in the working method, seeing how others operate”.</i>
Entrust the training planning only to the CoW (5)	<i>“The training courses are organized only by those companies that were born here and who have their offices here”.</i>
Entrust the training planning to both the CoW and to universities/institutions (15)	<i>“We are in collaboration with universities or external companies to design training”.</i>
No induction (18)	<i>“There is no induction for those who attend our CoW, because everyone must feel free to access it”.</i>
Induction (2)	<i>“There are mothers who are not psychologically ready to resume the working rhythms: here there is more than one professional who provides support”.</i>
Plan training courses for CoW employees (10)	<i>“Employees take courses on human-resource management and organization of spaces”.</i>
Do not plan training courses for employees (10)	<i>“We have difficulty finding space and time to train employees”.</i>
Informally identify the training needs (18)	<i>“We identify the training needs of coworkers in convivial moments such as lunches, dinners or coffee breaks”.</i>
Do not identify training needs (2)	<i>“We don’t identify coworkers’ needs because the contents of the courses are decided on the basis of our interests or on the requests of the territory”.</i>

Define the contents of the training courses according to requests of the coworkers (12)	<i>“The contents of the courses are decided according to needs expressed by the coworkers”.</i>
Define content according to requests of external companies (8)	<i>“The contents are defined on the basis of the requests expressed by the professional organizations or companies of the territory”.</i>
Adopting innovative teaching methods (8)	<i>“We use methodologies like TBL or PBL and work in small groups and the classrooms are set up for this”.</i>
Adopting traditional teaching methods (12)	<i>“We do frontal lessons with the help of digital tools”.</i>
Evaluating learning outcomes (7)	<i>“Learning is assessed at the end of the courses by asking the trainees to elaborate business plan projects or financial projects”.</i>
Do not evaluate learning outcomes (13)	<i>“It is in contradiction with the spirit of CoW to certify the skills acquired; the coworkers only want to grow”.</i>
Promoting smart working and networking (14)	<i>“We teach how to work in a new and agile way and in order to reduce friction in the company and to stimulate experimentation”.</i>
Incubating startups and cooperative working processes (6)	<i>“CoW helps startups to be born and to develop through group work”.</i>
Put work and space in relation (20)	<i>“There is a strong relationship between space and work, and the coworkers choose us based on how we organize our spaces”.</i>
Entrust the organization of the spaces to external professionals (5)	<i>“The spaces are organized by an architect with our collaboration”.</i>
Entrust the organization of the spaces to CoW managers (15)	<i>“The spaces are organized only by architects and consultants who are internal to the CoW”.</i>
Organizing events for the territory (20)	<i>“We communicate online. We have, for example, involved the territory in the week of agile work together with the Municipality of Milan”.</i>
Helping schools think differently about learning environments and methodologies (16)	<i>“Schools should adopt innovative methodologies like those used by startups, based on digital, in which everyone learns autonomously from errors”.</i>
Informing about what happens in CoW (4)	<i>“It is important to inform young people about the realities that exist outside the school; there is no entrepreneurial knowledge in schools”.</i>

Tab. 2 Conceptual categories and salient extracts. The numbers in brackets indicate the frequencies with which the conceptual categories occur

5. Quantitative data analyses

From the data quantitative analysis that emerged from the grid on the development of skills acquired within the CoW (graph 1) the collaborative, creative and management skills of their learning prevail (Castellotti, Paresio 2013). Graph 1 shows how the development of the “learning to work both in cooperative and autonomously” competency is prevalent. All skills based on creativity and self-organization of one’s own learning and professional development are also important. Skills related to scientific disciplines or scientific and technological dissemination processes are of less importance.



Graph 1. The most important skills that are developed by working in coworking



Graph 2. The least important skills that are developed by working in coworking

6. Discussion

6.1 CoW as an informal learning environment

From the qualitative analysis of the data, concerning the interviews, some elements emerge on which it would be useful to reflect: mixed educational planning, informal learning, informal detection of coworkers' training needs, absence of evaluation of the results obtained in the learning processes, absence of coworkers induction in CoW, type of work carried out in CoW, relationship between work, learning and space, ways in which the territory is involved and the suggestions that the respondents give to those who deal with formal education (above all schools and universities). Regarding the way in which the CoW plans the training courses, the will to seek interaction with the territory is clear, in particularly with companies or universities. The training planning thus becomes the result of a shared activity between CoW, university or external companies that are expert in business creation or in the digital market, thus strengthening the link between innovation and research (Sasa, 2013). The type of learning that characterizes CoW is informal, all the interviewees, indeed, declared that coworkers learn new knowledge and learn to work in a new and different way by observing other coworkers or simply through the exchange of information. A type of learning that has been defined by the OECD (2015) as "learning by experience". In addition to informal learning, some respondents said they also favored formal learning opportunities, through the planning of training courses, exclusively required by the business world or by professional associations of the territory. A kind of training course on which all coworkers cannot freely participate. For this reason, it is of secondary importance for CoW to detect the training needs of coworkers, since the training courses are organized according to the needs of the territory or companies that make explicit request. The practices of inclusion of coworkers in the CoW are also absent. Indeed, there is no induction policy that helps the coworkers to orient themselves between the training offers and the possibilities of learning. Only two respondents said they envisaged forms of induction in CoW, but they are particular CoW, frequented in particular by working mothers. The opportunities for learning CoW are, therefore, those informal ones that involve all coworkers even renting a simple desk, or formal occasions exclusively reserved but only to those who make explicit request. As for the teaching methods used for formal learning, traditional

ones are preferred to innovative ones such as PBL (problem-based learning) or TBL (team-based learning), two respondents also said they did not know the methodologies because dealing with of the training was exclusively down to the course teachers. This fact underlines how the innovation of the CoW particularly consists of the organization of the spaces and in the informal ways of learning and working, while the formal learning methods are still the traditional ones of the frontal lesson. Eight respondents, however, said they were experts in innovative methodologies and organizing the spaces of CoW specifically in relation to that. The importance of the correlation between the different forms of learning and the ways in which spaces are organized is a distinctive element of CoW (Bouncken, Reuschl, 2016). In fact, spaces are almost always open spaces that encourage collaboration, spontaneous interactions between coworkers and networking, thus creating a real community, where everyone is free to share experiences, learn from others and celebrate the mutual successes (Weijs-Perrée, van de Koeving, Appel-Meulenbroek, Arntze, 2018). The CoW space then combines informal and creative spaces with elements of a work space, where it is possible to find corners for coffee, a kitchen, meeting rooms, Internet access, printer and photocopier. Regarding the results obtained through formal and informal learning, no evaluation procedure is foreseen and so coworkers find themselves unwittingly and occasionally acquiring knowledge and skills without being fully aware of them. This is in fact one of the aspects of informal education that the European Union (European Commission, 2017) has criticized, inviting those involved in informal education, but also the same educational institutions to validate the knowledge and skills acquired in an informal way, in order to promote work mobility between different states and to better manage the imbalance present on the European labor market. The data underlined how the learning in CoW is the socio-constructivist approach as it is functional to the development of communities of work practices enhanced by work-based learning, according to which knowledge is built in the relationships between individuals in the context, so it is always fluid, open to negotiation and provisional (Cohen, Manion, Mossison, 2007). Furthermore, the type of work promoted in CoW is smart working, flexible and based on reconciling the times of private and working life, but at the same time based on high productivity and quality of life (Buksh, Mouat, 2015). Lastly, the last data collected from the interviews are suggestions that the respondents give to schools, universities and those involved in formal edu-

cation. Respondents suggest thinking differently about the time, space and methodologies of educating and interacting with CoW as they represent a potential partner for the school system to bring young people to professional environments, or create a fertile humus for start-ups or to get in touch with the world of work, thus feeling less solitude in the search for a satisfying job. CoW has been able to interpret the changes that in recent years have affected the way of working and learning, work is no longer just hierarchical, but it is distributed because many workers, having lost their job security due to the economic crisis, have looked for new ways to make communities and collaborate with each other (Andersen, 2014). The learning promoted in CoW is therefore transformative, able to help people to interpret and revise their lives, learn and have work experiences in a new and different way (Mezirow, 1990). This kind of learning is able to enhance the self-efficacy and autonomy skills of a person in managing their own career and their own learning processes.

6.2 Skills development in CoW

In general terms, quantitative data analysis emphasizes that the most important skills that are developed within CoW are those of learning to work collaboratively and autonomously; these skills thus enhance the creative and problem-solving skills that are developed through the comparison with the many professional identities present within the same CoW. In this way, CoW is seen as a workplace that becomes a laboratory of talents in which competence is developed, starting from co-agency processes that imply a sense of responsibility in participating in what happens in the world, feeling like participating in events. The agency thus understands the ability to identify a goal and the actions to be taken to achieve the same objective (OECD, 2018). In this way, the agency allows the competence to be no longer only encapsulated in the individual action, but corresponds to a social and ethical project vision enhanced by the responsibility of participation, collaboration and recognition of the value of the other. Thinking about the competence at work in an agentive key translates into thinking about competence as the synthesis of a new link between economic and ethical action, that is able to place at the center of the sense of development the value of man in connection with his community of belonging (Costa, 2019). It should also be noted that the skills of the disciplinary or scientific knowledge at the base of the new digital economy are considered by the interviewees as entry skills related

to their formal qualifications. In analyzing the skills, we then proceeded to form clusters of analyzes related to the presence or absence of a structured, emerging or implicit training strategy. The first cluster includes formal and informal learning processes, the second cluster only informal processes. The datum that emerges is that there is a correlation between the training strategy and the qualification of learning related to entrepreneurial development: where both formal and informal learning is present, the internal entrepreneurial development of CoW is supported both by the development of digital knowledge and entrepreneurial skills, also developed thanks to interaction with the territory. In the case instead there is only the enhancement of informal learning, CoW is thought of as a self-development environment supported by the possibility of creative interaction on a voluntary basis. As regards the development of skills in CoW, work action becomes in educational terms the basis of a transformative learning in the new fields of digital economy that is supported by critical thinking, dialogue and reflection and in which the primary role is played by actions and abilities, linked to personal values and context. The actions, based on the reflection that often involves several subjects, together with the skills of action produce changes that educate a new way of thinking about work and of engaging in the world of work and more generally in social life.

Conclusions

The principle of sharing common spaces is leading to the experimentation of new environments of co-living and coworking characterized by the independence of the productive subjects and the spaces, the self-government of the spaces themselves and the accessibility of the citizenship to the use and active attendance to goods and places.

The CoW space is intended as an open space characterized by flows, where supply and demand meet, where alliances, synergies and collaborations are created and where a new dimension of public service is experienced. These new forms of work organization are increasingly oriented towards freedom and the ability to unite subjects with different skills, knowledge and competences, necessary to adapt to an increasingly competitive labor market. Subjects available to learn and enrich skills in an environment conducive to shared knowledge building and develop professional exchanges (Björklund et al., 2011, Kojo and Nenonen, 2014).

CoW spaces allow educational terms to facilitate networking, enable social learning and promote innovation. The CoW space becomes a cognitive ecosystem in which working models can coexist to improve understanding, analysis and the ability to integrate the literacy of new media into educational programs, more sensitive to the development of new skills, such as the exercise of critical thought useful for developing individual responsibility and cognitive independence. These new working models present in CoW make it possible to develop professional, technological and vocational skills that are indispensable for training the workforce of the future; this through a necessary interdisciplinary preparation useful to develop skills and knowledge in a wide range of disciplinary fields and in expanding sectors, with high added value for the society of the future. Therefore, because of its peculiarities and how CoW spaces are designed, cooperative learning is facilitated (Loyens and Gijbels, 2008; Matthews, Andrews, Adams, 2011), and considering the importance of the educational consequences of this way of learning, even universities are creating CoW spaces within them. This research has shown that CoW is a work space where it is possible to co-learn starting from the establishment of real communities of practice and professional development (Kyro, Artto, 2015). The educational dimension of CoW is linked to work practices that voluntarily connect to generate work learning environments able to foster positive interdependence, interaction centered on the interpretation of the other, individual responsibility, shared leadership and attention and development of social skills (Yildirim, 2014). For these characteristics, CoW is a great opportunity to enlarge educational space orientating it to new social processes of knowledge generation (Cusmai, Di Saverio, Loasses, 2015). Mark Prensky (2013), an expert scholar of digital natives, has in fact highlighted how educational and training systems require a substantial revision and reorganization in a society that is becoming increasingly complex and digital and needs new connective and interpersonal skills. Today schools could borrow some space management practices and the methodologies of education through learning by doing and peer education, that represent learning approaches useful to stimulate the involvement of young people. In the school as in CoW, space can be designed to encourage problem-based learning and focus on problems related to work practices and to highlight the ability to collaborate, work in groups, read the new signals coming from social transformations and respond adaptively to continuous changes (Kojo, Nenonen, 2014). Following the increase in

life expectancy in most of the mature economies, with a view to lifelong learning, it is important to extend learning cycles to include adulthood that requires contexts in which to activate continuous and permanent knowledge reinforcement paths.

Research limits

The research shows limits on investigating the feelings, emotions and opinions of those who personally live and frequent CoW. As many would like to continue this line of research, one could widen the survey sample, listening not only to the managers of CoW, but also the coworkers, in order to know their point of view and to listen to their stories related to personal experiences of learning in CoW. From this kind of investigation, useful information could emerge for CoW managers, engaged in training design and organization of learning environments. For example, the results of our survey have already provided useful information to CoW managers, in order to understand the need not only to meet training requests from companies, but also those coming from every single coworker who may need reintegrate into the world of work and therefore acquire specific and individual skills.

Bibliography

- Andersen R. (2014). Rhetorical Work in the Age of Content Management: Implications for the Field of Technical Communication. *Journal of Business and Technical Communication*, 28: 115-157. In <<https://doi.org/10.1177/1050651913513904>> (last consulted on 04/01/2019).
- Barricelli D. (2016). *Spazi di apprendimento emergenti. Il divenire formativo nei contesti di coworking, fab lab e università*, Isfol Research Paper, n. 29.
- Bezzi M. (2015). *8 esempi per spiegare come i FabLab reinventano i paradigmi di lavoro e formazione*. In <http://goo.gl/jGWAcB> (last consulted on 2/01/2019).
- Bilandzic M., Foth M. (2017). Designing hubs for connected learning: Social, spatial and technological insights from Coworking, Hackerspaces and Meet-up groups. In L. Carvalho, P. Goodyear, M. de Laat (Eds.), *Place-Based Spaces for Networked Learning* (pp. 191-2016). United Kingdom: Routledge, Oxon.
- Botsman R., Rogers R. (2011). *What's mine is yours: How collaborative consumption is changing the way we live*. New York: Collins.

- Bouncken R.B., Reuschl A.J. (2016). Coworking-spaces: how a phenomenon of the sharing economy builds a novel trend for the workplace and for entrepreneurship. *Review of Managerial Science*, 12: 317-334.
- Björklund T., Clavert M., Kirjavainen S., Laakso M., Luukkonen S. (2011). Aalto University Design Factory in the eyes of its community. Aalto University. In <https://aaltodoc.aalto.fi/bitstream/handle/123456789/12171/-D4_bj%C3%B6rklund_tua_2011.pdf?sequence=1> (last consulted on 2/01/2019).
- Buksh B., Mouat C. M. (2015). Activating smart work hubs for urban revitalisation: evidence and implications of digital urbanism for planning and policy from South-East Queensland. *Australian Planner*, 52: 16-26.
- Caruth, G.D. (2013). Demystifying Mixed Methods Research Design: A Review of the Literature. *Melvana International Journal of Education*, 3: 112-122.
- Castellotti G., Paresio E. (2013). *Coworking. Condivisione professionale e autenticamente sociale*. River Press Group srl.
- Cohen L., Manion L., Mossison K. (2007). *Research Methods in Education*, 6th edit. Oxford: Routledge.
- Colleoni E., Arvidsson A. (2014). *Knowledge sharing and social capital building. The role of co-working spaces in the knowledge economy in Milan*. Unpublished Report, Office for Youth, Municipality of Milan.
- Cook T.D., Campbell D.T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Boston, MA: Houghton Mifflin Company.
- Costa M. (2019). Agency capacitante e sviluppo della competenza. In G. Alessandrini (ed.), *Attualità del capability approach in Europa e scenari della sostenibilità*. Milano: FrancoAngeli.
- Council Recommendation on key competences for lifelong learning (Text with EEA relevance) (2018/C 189/01). *Official Journal of the European Union*. In [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604\(01\)&rid=7](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604(01)&rid=7) (last consulted on 02/01/2019).
- Curaoglu F., Demirbas D. (2017). Proceedings of the 12h European Academy of Design Conference: *From Co-Working Places to New Education Places*. *Sapienza University of Rome. The Design Journal*, 20: S4765-S4767. In <<https://doi.org/10.1080/14606925.2017.1352986>> (last consulted on 31/12/2018).
- Cusmai M., Di Saverio M., Loasses C. (2015). La settima competenza chiave si rinnova Esperienze, metodologie e strumenti operativi. *Osservatorio Isfol*, n. 4, pp. 155-171.
- Ethics in Horizon 2020. In <http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ethics_en.htm> (last consulted on 11/01/2019).
- European Commission. (2017). *Quadro europeo delle qualifiche per l'apprendi-*

- mento permanente. In <http://www.europarl.europa.eu/sides/getDoc.do?pub-Ref=-//EP//TEXT+TA +P8-TA-2017-0217+0+DOC+XML+V0//IT> (last consulted on 06/01/2019).
- Galliani L. (2012). Apprendere con le tecnologie nei contesti formali, non formali e informali. In P. Limone (ed.), *Media, tecnologie e scuola: per una nuova Cittadinanza Digitale* (pp. 3-26). Bari: Progedit.
- Jakonen M., Kivinen N., Salovaara P., Hirkman P. (2017). Towards an Economy of Encounters? A critical study of affectual assemblages in coworking. *Scandinavian Journal of Management*, 33: 235-242. In <<https://doi.org/10.1016/j.scaman.2017.10.003>> (last consulted on 2/01/2019).
- Kojo I., Keltinkangas K., Hänninen J.J. (2013). Proceedings of the 41st SEFI Conference. *Developing Learning Environments for Engineering Education: Elements of User Experience and Supporting Spatial Solutions*. Leuven: Belgium.
- Kojo I., Nenonen S. (2014). User Experience in an Academic Coworking Place: The Case of Aalto University's Design Factory. In *Proceedings of the CIB Facilities Management Conference*. Copenhagen, Denmark.
- Kyro R., Artto K., (2015). *The Development Path of an Academic Co-working Space on Campus - Case Energy Garag*. *Procedia Economics and Finance*, 21: 431-438.
- Loyens S.M.M., Gijbels D. (2008). Understanding the Effects of Constructivist Learning Environments: Introducing Multi-Directional Approach. *Instructional Science*, 36: 351-357.
- Matthews K.E., Andrews V., Adams P. (2011). Social Learning Spaces and Student Engagement. *Higher Education Research & Development*, 30: 105-120.
- Merizow J. (1990). *Fostering critical reflection in adulthood: a guide in transformative and emancipatory learning*. San Francisco: Jossey-Bass Inc.
- Milani P., Pegoraro E. (2011). *L'intervista nei contesti socio-educativi: una guida pratica*. Roma: Carocci.
- Mortari L. (2007). *Cultura della ricerca e pedagogia. Prospettive epistemologiche*. Roma: Carocci.
- OECD. (2015). *Recognition of Non-formal and Informal Learning*. In <<http://www.oecd.org/edu/skills-beyond-school/recognitionofnon-formalandinformallearning-home.htm>> (last consulted on 05/01/2019).
- Ponce O.A., Pagán-Maldonado N. (2015). Mixed Methods Research in Education: Capturing the Complexity of the Profession. *International Journal of Educational Excellence*, 1: 111-135.
- Prensky M (2013). *La mente aumentata. Dai nativi digitali alla saggezza digitale*. Trento: Erickson.
- Rief S., Stiefel K.-P., Weiss A. (2016). *Harnessing the Potential of Coworking*. In <http://eu.haworth.com/docs/default-source/white-papers/harnessing-the-potential-of-coworking-81444.pdf?sfvrsn=6> (last consulted on: 31/12/2018).

- Sasa M. (2013). The Twenty-First Century University and the Concept of Lifelong Learning. *Australian Journal of Adult Learning*, 53: 151-170.
- Spinuzzi C. (2012). Working alone together. Coworking as emergent collaborative activity. *Journal of Business and Technical Communication*, 26: 399-441.
- Šviráková E., Soukalová R., Bedná P., Danko L. (2014). Culture managers education: system dynamics model of the coworking design centre. *Procedia Social and Behavioral Sciences*, 174: 1684-1694. In <<https://doi.org/10.1016/j.sbspro.2015.01.822>> (last consulted on: 03/02/2019).
- Trincherò R. (2002). *Manuale di ricerca educativa*. Milano: FrancoAngeli.
- Wenger E. (2006). *Comunità di pratica. Apprendimento, significato e identità*. Milano: Cortina.
- Yildirim M. C. (2014). Developing a Scale for Constructivist Learning Environment Management Skills. *Eurasian Journal of Educational Research*, 54: 1-18.

