ISSN: 2252-8822, DOI: 10.11591/ijere.v14i2.29678

Adult education in Greek municipalities during COVID-19 pandemic

Athanasia Ntafou^{1,2}, Noelia N. Jiménez-Fanjul², David Gutiérrez-Rubio²

¹Economist-Guidance Counselor-Municipality of Piraeus, Piraeus, Greece ²Department of Mathematics, Faculty of Education Sciences and Psychology, Universidad de Córdoba, Córdoba, Spain

Article Info

Article history:

Received Dec 18, 2023 Revised Sep 5, 2024 Accepted Sep 17, 2024

Keywords:

Adult education Citizen Local government Pandemic Qualitative research

ABSTRACT

State and local governments' primary purpose is to provide services to their populations by shaping their social and economic life. Adult education is a good example of a public service that extends deeply into people's everyday lives. It helps adults increase their social roles as employees, parents, and retiree, gain more fulfilment in their personal lives, and solve personal and community problems. The main research purpose of this paper is to investigate and describe adult education in Greek Municipalities during the COVID-19 pandemic, specifically in the Municipality of Piraeus. For this purpose, the research was conducted using the focus group research method. Two groups participated, the first consisting of four employees of the Center for Lifelong Learning of the Municipality of Piraeus and the second group of four adult learners representing the four courses held. The results of the survey show that the unprecedented situation of COVID-19, particularly affected adult education which had stopped for a while and then many courses were discontinued. The imperative to strengthen digital skills, the uncertainty of continuing education and the change of education as a result of the changing world were also identified.

This is an open access article under the **CC BY-SA** license.



1302

Corresponding Author:

Athanasia Ntafou Economist-Guidance Counselor-Municipality of Piraeus Makras Stoas 15, E-18531 Piraeus, Greece Email: athanasiantafou@gmail.com

1. INTRODUCTION

Before society recovers from the shock of the economic crisis, a major global recession began with the appearance of the COVID-19 pandemic. Everyday life changed suddenly, people were not allowed to leave home easily, others started losing their jobs and others started working from home [1]. Education has been particularly affected by the transition to remote instructional modalities due to the pandemic. Despite generally effective coordination in many nations, this shift has resulted in a deterioration of educational equality and the conditions conducive to effective learning, particularly within the domains of primary and secondary education [2].

A systematic review conducted by Betthäuser *et al.* [3] to study the effects of the pandemic on education in 12 countries found that a deficit in the quality of teaching occurred, with this being especially marked in areas with low economic resources and less digital infrastructure. These inequalities are particularly relevant in the case of adult education. For example, Manoharan *et al.* [4] conducted a critical review of focused on comparing online learning challenges among young and adult learners in English as a second language classes during the COVID-19 pandemic, revealing significant disparities in challenges faced by these two groups, and emphasizing the necessity for tailored approaches to address their distinct educational difficulties. In a Delphi study by Käpplinger and Lichte [5], interviewed 50 international experts

Journal homepage: http://ijere.iaescore.com

in adult education, concluding that, apart from minor discrepancies between countries, the general consensus was that the transition to online education had a strong negative impact on adult education.

Research by Charissi *et al.* [6] are focused on the effects of the pandemic on the education of young adults in Greece, paying attention to their perceptions and behavior. The research showed that young adult students showed an increased preference for acquiring skills with a short-term impact in dealing with crises and life-threatening situations. Most students expressed a preference for face-to-face learning, although they stated that they perceived the advantages of distance learning. The same conclusion was reached by Karalis and Raikou [7] who investigated the teaching of adult students at Greek universities during the pandemic period. Adult learners argued that face-to-face learning covers the subject being taught to a greater extent. Regarding comfort in attending classes, others said they feel comfortable attending class and participating in class, while others said they concentrate better and express themselves more when participating remotely from a computer.

Adult education is a fundamental component of modern societies since through it the future of these societies can be assured. It can help modern man to understand the social and cultural changes taking place and to better adapt to the constantly changing conditions of society. Also, adult education provides additional training of individuals, enrichment of their knowledge and skills, development and evolution of individuals [8]. At the state level, adult education in Greece began in 1929 with the aim of combating illiteracy. Adult education along with lifelong learning coordinated with the vocational training policies developed in the European Union over the last three decades. The year 1996 was declared the European year of lifelong learning and since then a number of funding opportunities have been launched to promote adult education [9]. Since 2011, adult education courses in Greece are held in lifelong learning centers that are usually supervised by municipality services. These centers offer a variety of free courses (economy-entrepreneurship, quality of life-environment, new technologies, language and communication, social skills and actions, culture and art, programs for vulnerable social groups) under the supervision of the Greek Ministry of Education [10].

The COVID-19 outbreak has affected people's lives at all levels. Thus, adult education was also affected. Adult education has been affected hardest because most of it was based on face-to-face activities, which have been reduced [11]. In the face of the COVID-19 situation, but also in the knowledge that future pandemic and other emergencies are likely to occur in the future, Lopes and McKay [12] emphasize the importance of adult education on pandemic issues so that trained adults can deal with similar situations by acting appropriately and protective for themselves and others. An important issue to address is a proposal for responding to emergencies in adult education so that it can fulfil its function. It will take time to deal with the effects of COVID-19 pandemic in every area of life, including adult education. This paper attempts to present adult education in Greek municipalities during COVID-19 pandemic and it does not concern judgments about adult education, but describes the current situation and suggests ways to improve it.

2. METHOD

The present research was conducted using the focus group research method and qualitative analysis. Focus groups research began to be used regularly in the late 1960s and has grown in popularity every year since [13]. Focus groups are essentially a way to listen to people and learn from them. It is a process of continuous communication between the facilitator and the participants, as well as between the participants themselves [14]. They generally consist of a one-time meeting of persons who either know or do not know one another and have a common experience [15]. A focus group is a special type of group in terms of purpose, size, composition, and procedures. It is a small group of 5-8 people and sometimes 4-12 people, who have certain characteristics in common that relate to the topic of the focus group. They provide qualitative data in a focused discussion to help understand the topic of interest. Participants, who have the required characteristics, are invited to participate [16]. Qualitative researchers use words to describe trends or patterns in research settings [17]. The product of qualitative inquiry is rich descriptive. Data in the form of excerpts and quotes contribute to the descriptive nature of qualitative research [18].

Municipality of Piraeus is the third largest municipality and settlement in Greece. Piraeus is the largest port of Greece, but also one of the most important ports in the Mediterranean Sea [19]. The goal of a case study is partly to explain the case under investigation and also, at the same time, to shed light on a larger class of cases putting the study into a larger context [20]. Education is an aspiration in the conduct and dissemination of the case. Engagement in case study research should contribute to participants' knowledge [21].

2.1. Participants-focus groups questions

Two groups were participated in this research. Research group 1 consisting of the four employees of the Lifelong Learning Center of the Municipality of Piraeus, and research group 2 consisting of four adult learners who are the representatives of the four courses those continue to be conducted. We chose the use of

1304 □ ISSN: 2252-8822

two focus groups to gather more information in less time, as Fern [22] found that two focus groups of eight people together could generate almost as many ideas as individual interviews with the same number of people [23]. In addition, responses in one focus group provide more depth and are closer to what people really think and feel, making working with two focus groups clearly more efficient [24].

We chose as the location of the interviews one of the Lifelong offices as both employees and adult learners had direct access to it and it reinforces the neutral scientific status of the inquiry into the topic [22], [25]. A total of one meeting for every group was held in July 2020 with each session lasting approximately one and a half hour. The conversations between four participants and three researchers took place in an office and they included a moderator who leads the discussion [26].

The participants have previously been informed about the purpose of the interview and about the reasons they have been selected. They are also informed that their discussion will be recorded and assured that their anonymity will be guaranteed. The same questions were asked to both groups. There was a general question (what is the current situation in adult education related to COVID-19 pandemic?) and two follow-up questions:

- What do you think of the new situation?
- If you could offer a piece of advice regarding the improvement of the adult education, what piece of advice would you offer?

2.2. Procedure: focus groups interviews

2.2.1. General question: what is the current situation in adult education related to COVID-19 pandemic?

a. Focus group 1

Employees interviewed analyzed the situation in adult education from the beginning of the year until today. "The current situation related to the COVID-19 pandemic has affected learning at all levels, especially adult education." It was reported that preventive measures to prevent the spread of the pandemic, resulted in the closure of adult education services. It is interesting to note from the participants that it appeared that adult education should not have been in the government's priorities. Specifically, they report that, "although the Ministry of Education has encouraged schools and universities to use online and distance education to ensure continuity of learning, adult education did not attract government attention during the first wave of government decisions." As a result, adult education services were abruptly closed. At the beginning of 2020, almost half (20) of the adult education courses announced in November 2019 have been conducted.

It is also pointed out that, although the government took care of the continuation of education in schools and universities, using distance education, there was no similar decision for adult education. In March 2020, the center for lifelong learning announced the postponement of all classes and there was no online course scheduling. A little later, in May 2020, it was announced that only four courses (Spanish language, internet tools, word processing, and interpersonal relations) would be held by the lifelong learning center, "thus excluding the other learners who participated in the other adult programs".

b. Focus group 2

The second group reports that with the outbreak of the pandemic, at the beginning of 2020, people were locked in their homes and all activities stopped. In particular participants report, "Government regulations precluded adult education and classes could not be held online." It should also be noted that in May 2020 it was announced that 4 courses out of 20 would be held, thus excluding the participants of the other 14 educational seminars. It is also mentioned the difficulty of conducting online courses, as "many of us do not have devices that we can use for online learning."

2.2.2. Follow-up question 1: what do you think of the new situation?

a. Focus group 1

The group highlights the inadequacy of most education systems in the face of the world of digital learning opportunities. The outbreak of the pandemic, combined with the above weakness, resulted in the adult education sector being hit particularly hard. Describing the current situation, participants typically state that "the situation in adult education can be described as unstable in terms of system operation and delivery." It is also pointed out that, "the crisis will probably worsen the existing problems. As most adult learners do not even have basic digital skills, they are at risk of increased isolation and disadvantage."

b. Focus group 2

Describing the current situation, the second group states that the new situation that has developed "has turned the course programs and attendance upside down." The group also cites a number of issues that

"hinder the wider and permanent spread of distance education." The element that is particularly emphasized is "digital poverty", while the need "for reflection and planning to improve adult education" is underlined. Finally, the importance of adult education in the new situation is emphasized: "adult education has a key role to play as a response to the socio-economic and mental challenges we face."

2.2.3. Follow-up question 2: if you could offer a piece of advice regarding the improvement of the adult education, what piece of advice would you offer?

a. Focus group 1

With the outbreak of COVID-19, existing weaknesses and shortcomings were highlighted. These include the lack of digital knowledge and skills of many adult learners. It is emphasized that, "it is fundamental to ensure access to digital learning tools and technologies. It is important for adult learners to have the ability to learn and adapt." Also, the "technological organization of the adult education system" needs to be strengthened to allow learners to develop the appropriate skills and respond better to the contemporary changing environment.

b. Focus group 2

The issue of better utilization and integration of technology in adult education is the first thing that this group emphasizes. It is characteristically stated that, "the digital gap is fundamental to enable the transition to digital learning." The lack or inadequacy of technological knowledge and skills of many adults is highlighted. Also, an element highlighted by this group is "the need for knowledge of risk-reducing behavior" and "need for better life skills." "We need organizational, social, interpersonal, emotional and psychological skills." It is also pointed out that distance education cannot replace traditional education, as "the most important of all is the mental contact we have with our teachers and with each other and the joy of communication and the anticipation of the next meeting."

After we finished the questions, we asked them if there is anything else they had like to tell us about the topic. Finally, we thanked them for sharing their thoughts with us. Then, the researchers discussed our overall impressions of the two groups' responses.

3. RESULTS AND DISCUSSION

Focus group comments were transcribed and responses categorized, using the Atlas.ti software [27]. Atlas.ti is a qualitative research tool that helps in data analysis. Portions of data are marked, creating quotes, which can be in text, graphic, audio or video format. It provides qualitative data analysis [28] and it significantly improves both the possibilities of the research process and its transparency. However, it is the researcher who is responsible on the one hand for the approach followed in conceptualizing, organizing and sorting out pieces of data and on the other hand for the systematic documentation of these processes. It is a software qualitative cousin to statistical packages like SPSS or SAS [29].

Figure 1 shows the created network of identified codes in the responses, along with their relationships. Then, the main points of the interviews of the two groups are then mentioned. Broader conclusions were drawn from their answers and both the points of convergence and the points of divergence of their opinions were highlighted.

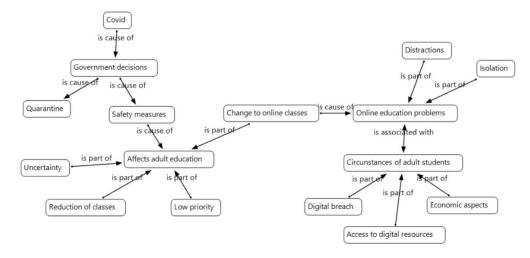


Figure 1. Network of codes identified in the responses

1306 ☐ ISSN: 2252-8822

The research findings provided insights into the views, beliefs and practices of the employees and adult learners selected for case study. They are written in narrative form to describe the answers and quotes and revealed that both groups showed that the main impetus for the information came about the current state of adult education and how we got to it, as well as ways to improve the situation. There is a relative uniformity in the information and views gathered by both groups. The comments of each group representative were based on the experience of their members. Both groups appear to be dissatisfied regarding the way in which the competent service of the Ministry responded to the outbreak of COVID-19 pandemic.

The employees (group 1) seemed willing to formulate the training program by finding more flexible ways of providing adult education, having, of course, the relevant permission and support from the government and the competent ministry. Findings confirmed the need for adults to be trained in online technology. Adult learners (group 2) believe that the traditional way of teaching cannot be replaced by the online. There is also a need for better social, emotional and behavioral skills that would help especially adult learners in a rapidly changing environment. The most reiterated idea is the imperative need to enhance digital skills and access to digital learning tools for adult learners. This theme is consistently mentioned across both focus groups underscoring the significance of bringing the digital divide and fortifying technological infrastructure within the adult education system.

Besides, both groups emphasize the fact that adult education is an area of low priority in government education policy, as demonstrated by the special emergency measures taken during the COVID-19 pandemic. This low priority was reflected in aspects such as uncertainty about the continuity of teaching, it is reduction, and late decisions to switch to online mode in relation to traditional education. During the same period of time, the teachers show the same uncertainty and anxiety on their part. They are worried, not only about the economic and social consequences of the pandemic, like everyone else, but mainly about whether they will be able to meet the demands of an educational process with which they are not familiar [30]. In addition, the transition to online mode involved a number of problems related to the specific nature of adult learners, such as the digital divide or access to computers, and other problems more related to the nature of online teaching, such as lack of motivation or feelings of isolation from classmates and teachers. Some examples of pieces of transcripts associated with these codes are shown in Table 1.

Table 1. Transcript examples with associated codes

Code	Transcripts
Low priority	"There was a government decision about the way of using distance-based learning by schools and
	universities. There was no such a decision regarding adult education." (Group 1)
	"Government regulations left out adult education, and courses could not be moved online." (Group 2)
Digital breach	"not ready for the world of digital learning opportunities. Adult education has been hit particularly hard."
	(Group 1)
	"Many of us don't have devices we can use for online learning." (Group 2)
Online education	"They also feel lack of motivation to work from home." (Group 1)
problems	"Learning from home often presents distractions." (Group 2)

Both groups believe that the content of adult education programs has a positive impact on the lives of learners, as it helps them to become socially integrated and active citizens, especially in the current difficult conditions of the pandemic. The expression of interest of adult learners to continue their education in other modules shows that participation in adult education can only be a positive experience and leaves a positive sign in adult education. The fact is that the field of adult education has been facing particularly difficult conditions since the beginning of the pandemic. That is why knowledge about the protection of COVID-19 is vital. The most important issue that arose from the answers of both groups is, since the world is changing, so must adult education.

The findings of this research showed the real situation in adult education offered by Greek municipalities during the COVID-19 pandemic through the Piraeus Municipality study. Public adult education services in Piraeus Municipality have been greatly affected by the COVID-19 pandemic as their absence was seen in the first wave of government decisions to deal with COVID-19. All adult education classes had been suspended due to the pandemic national emergency. James and Thériault [31] informed that Brossard from the *Institut de coopération pour l'éducation des adultes* (ICEA) reports that in 2020 the same thing happened in Quebec, Canada, only they were more organized there. Of course there, while adult education classes were suspended, the government held daily press conferences, explaining to adult students concepts such as social distancing and the pandemic, who did not have access to or were not comfortable with new technologies.

The assessment of the situation during the pandemic identified the inadequacy of education systems to offer digital learning and the need to train adults in digital skills. Uncertainty and anxiety were found both on the part of representatives of the municipal education service and on the part of adult learners, as well as their concern about the economic and social consequences of the pandemic and their isolation due to their unfamiliarity with online education. We have identified the factors that contribute to effective adult education. Adult education could be made significantly more effective through proactive education policies with basic skills programs such as digital, domestic and adaptive skills among others that can improve the lives of adults by providing them with mental health, protection, reducing social inequality and social inclusion through of everyday life engagement and interaction.

These findings extend those of Iñiguez-Berrozpe *et al.* [32] who found in their research that adult education improved students' social and political perceptions, encouraged greater cultural participation, increased employability rates, and improved their health. Of course, their research only involved women with a low level of education. Similarly, research by Heller and Mumma [33] revealed that those involved in adult education experienced a significant 56% increase in income benefits alongside increased assimilation in the host country, as the study looked at immigrant education in Massachusetts.

Regarding the teaching method, it was found that adult students prefer the traditional teaching method to the online one. That is why the need to strengthen the digital skills of adults in relation to better social, emotional and communication skills was underlined. Kedraka and Kaltsidis [34] reached the same conclusion about the effects of the pandemic on education in Greece by exploring the experiences and thoughts of young adult students. Adult learners consider that, although distance education is interesting, modern, adequate and convenient, it cannot replace social interaction with classmates and teachers. They said they longed to be back in classrooms and labs.

The research findings also provide information for government policy on adult education. Adult education has been a low priority government policy. Similar results were obtained by Stanistreet *et al.* [35], who then called for a special journal issue on education during the COVID-19 pandemic. In response they received 150 abstracts from countries across all continents on the impact of COVID-19 on education, including the United States, South Korea, Cameroon, Canada, and China. There were some common points in these countries, such as the fact that the countries were unprepared, many adult students, in particular, were left out of educational structures, as many community education centers were closed. In addition, many adults had little or no knowledge of online education, and adult educators were looking for ways to promote learning so that it continues when face-to-face classes resume. Other authors such as Smythe *et al.* [36] explored pedagogical adaptations made by adult education instructors and their influence on students, with a particular focus on the Canadian context. The study showed how these teachers independently devised strategies in the absence of institutional support. Online teaching and learning capacity needs to be strengthened and institutions, teachers and students continue to seek flexible ways to pursue their educational goals in times of crisis [37].

Our analysis predicts that the need to adapt education to the changing world is imperative. This approach contributes to the deployment of innovative teaching methods and the use of digital tools, so that adult education can effectively respond to the changing needs of students, enhancing their learning experience in an ever-evolving landscape. Karalis [38] suggests ways to plan and evaluate during the disruption of education due to the COVID-19 pandemic without focusing on adult education. It proposes the immediate routing of an emergency solution with the assessment of the situation, the formation of the training program, it is implementation and its final evaluation.

After the pandemic, two trends have been formed in adult education: the return to the previous situation and the movement of adult education to a digital environment [39]. Of course, as it already seems that there will be future pandemic threats, the world is not completely returning to the previous state. Face-to-face training is envisaged to be used alongside digital participatory approaches, where the trainer/teacher instead of lecturing, brings out the experiences of the participants [40].

4. CONCLUSION

In this study, we found that adult education was hit harder than any other sector during the COVID-19 pandemic. Both adult learners, as well as the employees of the Municipality's Education organization were faced with financial and personal uncertainty. Learning digital skills as well as other skills such as social, emotional, psychological and self-protection skills is an essential need now. Adult students perceived face-to-face education. Online education is seen primarily as an emergency response rather than a long-term substitute or permanent situation. In no case can it meet the needs of adults for social and emotional contact interaction between them. The course needs to be interactive and this perspective helps us to orient ourselves to the next education system. After all, real change often happens in a deep crisis, such as a pandemic. On top of this, the findings also highlight the importance of adapting adult education to the

1308 □ ISSN: 2252-8822

changing needs of today's world. This includes incorporating flexible approaches and enhancing the technological skills of both adult learners and teachers. By adopting innovative teaching methods and using digital tools, adult education can effectively respond to the changing needs of students and enhance their learning experience in an ever-evolving landscape. Overall, we believe that our findings have shown that adult education during the COVID-19 pandemic. In addition, this article has identified two important ways to improve adult education: providing adult digital literacy and mental health skills programs, protection from current and future pandemics, and social contact. Finally, this article raised issues for further research on what adult education might look like after the COVID-19 crisis.

REFERENCES

- [1] H. S. Olesen, S. Schreiber-Barsch, and D. Wildemeersch, "Editorial learning in times of crisis," *European Journal for Research on the Education and Learning of Adults*, vol. 12, no. 3, pp. 245–249, Oct. 2021, doi: 10.3384/rela.2000-7426.4083.
- [2] J. Lavonen and K. Salmela-Aro, "Experiences of moving quickly to distance teaching and learning at all levels of education in Finland," in *Primary and Secondary Education During COVID-19: Disruptions to Educational Opportunity During a Pandemic*, F. M. Reimers, Ed., Cham: Springer International Publishing, Sep. 2021, pp. 105-123, doi: 10.1007/978-3-030-81500-4 4.
- F. M. Reimers, Ed., Cham: Springer International Publishing, Sep. 2021, pp. 105-123, doi: 10.1007/978-3-030-81500-4_4.

 B. A. Betthäuser, A. M. Bach-Mortensen, and P. Engzell, "A systematic review and meta-analysis of the evidence on learning during the COVID-19 pandemic," *Nature Human Behaviour*, vol. 7, no. 3, pp. 375–385, Jan. 2023, doi: 10.1038/s41562-022-01506-4.
- [4] S. R. Manoharan, T. K. Hua, and F. M. M. Sultan, "A comparison of online learning challenges between young learners and adult learners in ESL classes during the COVID-19 pandemic: a critical review," *Theory and Practice in Language Studies*, vol. 12, no. 1, pp. 28–35, Jan. 2022, doi: 10.17507/tpls.1201.04.
- [5] B. Käpplinger and N. Lichte, "The lockdown of physical co-operation touches the heart of adult education': a Delphi study on immediate and expected effects of COVID-19," *International Review of Education*, vol. 66, no. 5–6, pp. 777–795, Dec. 2020, doi: 10.1007/s11159-020-09871-w.
- [6] A. Charissi, E. Tympa, and V. Karavida, "Impact of the COVID-19 disruption on university students' perceptions and behavior," European Journal of Education Studies, vol. 7, no. 11, pp. 222–238, Oct. 2020, doi: 10.46827/ejes.v7i11.3348.
- [7] T. Karalis and N. Raikou, "Teaching at the times of COVID-19: inferences and implications for higher education pedagogy," International Journal of Academic Research in Business and Social Sciences, vol. 10, no. 5, pp. 479–493, May 2020, doi: 10.6007/IJARBSS/v10-i5/7219.
- [8] P. Jarvis, Adult education and lifelong learning: theory and practice, 3rd ed. London: Routledge, 2004, doi: 10.4324/9780203561560.
- [9] M. Formosa and T. Hafford-Letchfield, "Mind the gap! An exploration of the role of lifelong learning in promoting co-production and citizenship within social care for older people," *European Journal for Research on the Education and Learning of Adults*, vol. 7, no. 2, pp. 237–254, Mar. 2016, doi: 10.3384/rela.2000-7426.rela0154.
- [10] K. Anthopoulou, E. Valkanos, and I. Fragkoulis, "The professional development of adult educators: the case of the Lifelong Learning Centers (L.L.C) in the Prefecture of Evros, Greece," *International Journal of Learning, Teaching and Educational Research*, vol. 16, no. 11, pp. 77–91, Nov. 2017, doi: https://doi.org/10.26803/ijlter.16.11.5.
- [11] E. Boeren, E. A. Roumell, and K. M. Roessger, "COVID-19 and the future of adult education: an editorial," *Adult Education Quarterly*, vol. 70, no. 3, pp. 201–204, Aug. 2020, doi: 10.1177/0741713620925029.
- [12] H. Lopes and V. McKay, "Adult learning and education as a tool to contain pandemics: the COVID-19 experience," *International Review of Education*, vol. 66, no. 4, pp. 575–602, Aug. 2020, doi: 10.1007/s11159-020-09843-0.
- [13] T. Greenbaum, The handbook for focus group research, 2nd ed. Thousand Oaks, CA: SAGE Publications, Inc., 1998, doi: 10.4135/9781412986151.
- [14] D. Morgan, The focus group guidebook. Thousand Oaks, CA: SAGE Publications, Inc., 1998, doi: 10.4135/9781483328164.
- [15] M. A. Carey and J.-E. Asbury, Focus group research, 1st ed. New York: Routledge, 2016, doi: 10.4324/9781315428376.
- [16] R. A. Krueger, Focus groups: a practical guide for applied research, 5th ed. Thousand Oaks, CA: SAGE Publications, Inc., 2015.
- [17] D. R. Hancock and B. Algozzine, *Doing case study research: a practical guide for beginning researchers*, 3rd ed. New York: Teachers College, Columbia University, 2017.
- [18] S. B. Merriam and E. J. Tisdell, Qualitative research: a guide to design and implementation, 4th ed. San Francisco: Jossey-Bass, 2016.
- [19] C. Patragas, Great Piraeus album. Greece: Mytileneos, 2004.
- [20] J. Gerring, Case study research: principles and practices, 2nd ed. Cambridge: Cambridge University Press, 2016, doi: 10.1017/9781316848593.
- [21] H. Simons, Case study research in practice. London: SAGE Publications, Ltd, 2009, doi: 10.4135/9781446268322.
- [22] E. Fern, Advanced focus group research. Thousand Oaks, CA: SAGE Publications, Inc., 2001, doi: 10.4135/9781412990028.
- [23] M. M. Hennink, "Focus group discussions: understanding qualitative research. New York: Oxford University Press, 2014.
- [24] D. Morgan, Focus groups as qualitative research. Thousand Oaks, CA: SAGE Publications, Inc., 1997, doi: 10.4135/9781412984287.
- [25] M. Bloor, J. Frankland, M. Thomas, and K. Robson, Focus groups in social research. London: SAGE Publications Ltd, 2001, doi: 10.4135/9781849209175.
- [26] J. Cyr, Focus groups for the social science researcher. Cambridge: Cambridge University Press, 2019, doi: 10.1017/9781316987124.
- [27] "ATLAS.ti Scientific SoftwareDevelopment GmbH (Version 7.5.7)," Accessed: Dec. 1, 2023. [Online]. Available: http://atlasti.com/.
- [28] S. Friese, Qualitative data analysis with ATLAS.ti, 3rd ed. London: SAGE Publications Ltd, 2019, doi: 10.4135/9781529799590.
- [29] N. H. Woolf and C. Silver, Qualitative analysis using NVivo, 1st ed. New York: Routledge, 2017, doi: 10.4324/9781315181660.
- [30] N. Raikou, G. Konstantopoulou, and K. Lavidas, "The psychological impact of the COVID-19 pandemic on Greek teachers and the emerging challenges for their professional development," *Open Education: The Journal of Open and Distance Education and Educational Technology*, vol. 17, no. 1, pp. 6–18, Apr. 2021, doi: 10.12681/jode.25341.

- [31] N. James and V. Thériault, "Adult education in times of the COVID-19 pandemic: inequalities, changes, and resilience," Studies in the Education of Adults, vol. 52, no. 2, pp. 129–133, Oct. 2020, doi: 10.1080/02660830.2020.1811474.
- [32] T. Iñiguez-Berrozpe, C. Elboj-Saso, A. Flecha, and F. Marcaletti, "Benefits of adult education participation for low-educated women," *Adult Education Quarterly*, vol. 70, no. 1, pp. 64–88, Feb. 2020, doi: 10.1177/0741713619870793.
- [33] B. H. Heller and K. S. Mumma, "Immigrant integration in the United States: the role of adult English language training," American Economic Journal: Economic Policy, vol. 15, no. 3, pp. 407–437, Aug. 2023, doi: 10.1257/pol.20210336.
- [34] K. Kedraka and C. Kaltsidis, "Effects of the COVID-19 pandemic on university pedagogy: students' experiences and considerations," *European Journal of Education Studies*, vol. 7, no. 8, pp. 17–29, Jul. 2020, doi: 10.46827/ejes.v7i8.3176.
- [35] P. Stanistreet, M. Elfert, and D. Atchoarena, "Education in the age of COVID-19: understanding the consequences," *International Review of Education*, vol. 66, no. 5–6, pp. 627–633, Dec. 2020, doi: 10.1007/s11159-020-09880-9.
- [36] S. Smythe, A. Wilbur, and E. Hunter, "Inventive pedagogies and social solidarity: the work of community-based adult educators during COVID-19 in British Columbia, Canada," *International Review of Education*, vol. 67, no. 1–2, pp. 9–29, Apr. 2021, doi: 10.1007/s11159-021-09882-1.
- [37] S. J. Daniel, "Education and the COVID-19 pandemic," Prospects, vol. 49, no. 1–2, pp. 91–96, Oct. 2020, doi: 10.1007/s11125-020-09464-3
- [38] T. Karalis, "Planning and evaluation during educational disruption: lessons learned from COVID-19 pandemic for treatment of emergencies in education," European Journal of Education Studies, vol. 7, no. 4, pp. 125–142, May 2020.
- [39] M. Kerres and J. Buchner, "Education after the pandemic: what we have (not) learned about learning," Education Sciences, vol. 12, no. 5, p. 315, Apr. 2022, doi: 10.3390/educsci12050315.
- [40] S. Iñiguez and P. Lorange, "Introduction: business education in times of disruption and resilience," in *Executive education after the pandemic*. A vision for the future, S. Iñiguez and P. Lorange, Eds., London: Palgrave Macmillan, 2021, doi: 10.1007/978-3-030-82343-6.

BIOGRAPHIES OF AUTHORS



Athanasia Ntafou (D) (S) (S) is a Ph.D. candidate at the University of Córdoba, Spain and works in the Municipality of Piraeus, Greece. She is an Economist and Guidance Counselor. She is an adult trainer at the Hellenic National Center for Public Administration and at the Scientific Association for the Promotion of Educational Innovation. Her research interests cover lifelong learning with an emphasis on adult education, local government, human resource management and consultancy. Her publication topics are virtual reality in education and adult education. She can be contacted at email: athanasiantafou@gmail.com.



Noelia N. Jiménez-Fanjul is an Associate Professor in the Department of Mathematics, field of mathematics education, at the University of Cordoba (Spain). She got a Ph.D. in Education at University of Cordoba focus on mathematics education. She has been working in the department of mathematics since 2010, lecturing in early childhood and primary teacher training degrees as well as secondary teacher training at master level. Noelia does research in mathematics education; evaluation, impact, and diffusion of science; history of mathematics; attitudes towards mathematics; and teacher training. She has been working, and currently works, as a researcher in several research projects. She can be contacted at email: noelia.jimenez@uco.es



David Gutiérrez-Rubio (D) SI (S) is Associate Professor in the Department of Mathematics, Mathematics Education, at the University of Cordoba (Spain). He holds a Ph.D. in Mathematics from the University of Seville. He has been working in the Department of Mathematics since 2015. His main research interests are: mathematics education; evaluation, impact and diffusion of science; teacher training. He can be contacted at email: dgrubio@uco.es.