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Educators, Covid-19 and Online Interaction: A Qualitative Research

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Abstract
The Covid-19 pandemic has completely changed the conventional interaction among people. The face to face interactions are very restricted due to confinement measures of Covid-19. Inhabitants, public people and institutions have undertaken a lot of initiatives for promoting online interaction and improving life quality. People read online newspaper to avoid buying the newspaper at the newsstand. Schools activate the distance learning. People use online platforms to interact with parents, friends, colleagues, etc. People are quickly adapting their daily routine to the complete changes in social habits. The whole population is learning and improving skills in the use of technological tools. The Italian school was ready to start the distance teaching thanks to the 13 years of digitalization plans for school: PON, Programmazione Operativa Nazionale 2007-2013, the digital agenda, the 107 Law, the Piano Nazionale Scuola Digitale. These plans are focused on the specialization of schools in the use of technology. During this sanitary emergency the school provided support for the students and their family, reduced the digital divide, and allowed the continuation of teaching. School designed the weak student's life projects in collaboration with educators provided by the local administrations. In this way the improvement of life quality of children with special needs, elderly people, and their families was largely granted, even if at distance. Based on this situation, the research team wanted to explore how do the educators realize their work since the quarantine of Covid-19 started, and the modality of offering their support turned from "in presence" to "at distance". To answer this question, the researchers chose to carry out a qualitative research, 30 Italian educators being involved through a semi-structured interview. The interview questions were divided into four topics to be explored: profession, profession and Covid-19, the use of technologies, and training thought as useful during the emergency. The research is still in progress, due to the Covid19 emergency prolongation, and the data collected represent at the moment a starting point. In this paper the results of the respondents' answers will be presented. The results reveal practical lines of action that educators have consciously chosen to respond to the lack of contact in presence. The lack of in presence interaction is connected to the failure of online interaction. The role of the mediator played by the family results as necessary and fundamental in the success of online activities with weak students. The outcomes are useful to design educators' training and for the evolution of policies that improve the modus operandi of this category of workers, especially during a health emergency.
Keywords: educator, Covid-19 pandemic, distance teaching, educators' training

Introduction

People around the world have known the consequences and the effects of Covid-19 pandemic. Pandemic has changed and is changing our private and public daily routine. People had to change their own lives to avoid the virus infection. We couldn't meet families, parents and friends. The shops were closed, we could only go to the supermarket once a week for each family. Gyms, swimming pools, sports fields were closed. Schools, kindergartens, meeting centers couldn't accept kids, teenagers, adults and elderly people. Places of worships couldn't be visited. Hospitals were full of sick people; medical examinations were deleted, apart from those connected to the virus infection. Doctors and nurses took long shifts at work. Many family members and friends were ill. Death have achieved unimaginable sums. Daily life has suddenly changed. (Chakraborty, I., & Maity, P., 2020) People around the world have immediately reacted to the several containment measures imposed by each government. In Italy, the first European country to be impacted, visiting the website of the minister of health, the containment measures taken can be read (Ministro della Salute, http://www.salute.gov.it/portale/nuovocoronavirus/dettaglioContenutiNuovoCoronavirus.jsp?lingua=itali

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The Aim of the Survey

Boys and girls with special needs are frequently supported by an educator in addition to the class teacher and the support teacher. As the scholastic activities were interrupted because of the pandemic, teachers, educators, and operators have started to use the distance learning. (Marshall, A. L., & Wolanskyj-Spinner, A., 2020)

In this paper, the research teams have chosen to give a voice to the figure of educators who work both at school and in social contexts.

The research team wanted to examine the ways of observing, interacting, and designing activities and tools during the pandemic from Covid-19. The aim of the research is to know the strategies and tools put in place during the quarantine by the educators and understand if and how technological tools were considered useful. Moreover, how did the educator re-develop his professionalism during the Covid-19 emergency?

Method

Thirty educators were involved, being selected on the basis of two criteria: residing in Le Marche region in Italy and have been working as a school assistant and/or home attendant for at least two years. The first criterion is connected to the easy availability of contacts, the second criterion is the need to have educators with experiences before and during the Covid-19 pandemic.

The 30-person study group is formed by 23 females and 7 males and meets both selection criteria. The people interviewed are between 23 and 52 years old. The average age of women is 36.1 years and men is 38 years. The average age of the whole people interviewed is 36.6 years.

Table 1. Shows the Respondents' Gender and Average Age

Study group	F	M	Total
Respondents	23	7	30
average age	36,1	38	36,6

The tool used to collect data is a semi-structured interview, characterized by 6 parts: the introductory part on the research and methodology chosen; 4 parts on the chosen topics; a part on the interviewee's demographic data (gender, chronological age, residence, educational qualification, and profession); the date, time, and name of the researcher who carried out the interview were also noted.

The research team conducted the interviews through a call to the people of the study group and each interview was recorded in order to be able to better analyze the data that will emerge. The data of the interviewees are treated with respect for anonymity. The interview was transcribed immediately after its conclusion and prior to the execution of the next. Each interview was transcribed respecting the person's narrative order and trying to use the words and phrases used by the respondents.

The analysis of the interviews took place inductively, from the particular to the general. The research team carried out two analysis steps: longitudinal and transversal. The first analysis took place longitudinally. Each individual interview was analyzed individually: initially by connecting the answers given to the questions asked and subsequently to the topics. The second analysis took place transversely: initially, all the answers of each respondent was been connected to the topics that were transcribed in a single file; subsequently, the answers were compared to have conceptual labels which were in turn collected into broader thematic categories. This qualitative research began in April 2020 and is still ongoing, since on the one hand we are trying to expand the sample to other educators and on the other hand we want to have a diachronic view of the research results given the prolongation of the pandemic from COVID-19.

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ICLEL 2020 / July 13-16, 2020 / Internatinal University of Sarajevo- BOSNIA & HERZEGOVINA

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Findings

The research teams will illustrate the results of the cross-sectional analysis for the quantity and quality of data that emerged in this paper.

As for the study group, all the interviewees fall within the selection criteria. All the people interviewed are school assistants or home assistants and both (Table 2).

Table 2. Educational Jobs of Respondents

Study group	N
School Assistant	7
Home Attendant	6
School Assistant and Home Attendant	17
TOTAL	30

In addition to carrying out the profession of school assistant and/or home attendant, some interviewees also carry out other professions in parallel: educators at centers (4), psychologists (2), pedagogists (3), and O.S.S., Operator Sanitary Partner (2).

All respondents carry out their educational profession with a minimum of 3 and a maximum of 5 people. The people with whom they work are spread throughout the life cycle especially for the figure of the Home Attendant, psychologists, pedagogists, and the OSS. The work of a school assistant is mainly carried out by the kindergarten to the secondary school of II grade for an age range from 3 to 19 years. The figure of the school assistant is present in a smaller number: 4 at the Nido Kindergarten (3 months-3 years) and 1 at the University from 19 years of age. The problems of the people with whom the interviewees work are different: Autism Spectrum Disorder, Down syndrome, Developmental coordination disorder, family problems, social problems, Learning disability, ADHD, Attention Deficit and Hyperactivity Disorder, Generalized Developmental Disorder, Intellectual Disability, Visual Impairment, Prader – Willi syndrome and Tuberous Sclerosis. (Table 3)

Table 3. Problems of Person

Problematic	N
Autism Spectrum Disorder	29
Down syndrome	14
Developmental coordination disorder	14
family problems	15
social problems	13
Learning disability	10
ADHD, Attention Deficit and Hyperactivity Disorder	9
Generalized Developmental Disorder	8
Intellectual Disability	7
Visual Impairment	4
Prader–Willi syndrome	1
Tuberous Sclerosis	1
TOTAL	125

During the Covid-19 pandemic, all respondents conducted educational activities with at least one person with problems.

From the comparison of the answers, from the subsequent cataloging and comparison of the conceptual labels, 5 conceptual categories emerged: "change"; "technology: choice, and purpose"; "online and face to face interaction: the strengths and the weakness"; "mediation of families"; "necessity of training on the online education"

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FOR ALL

The conceptual category "the change" is clearly visible from the answers of the respondents both as regards working hours and work routines and as regards educational planning and educational objectives. Significant text units were transcribed in Table 4 that allowed the research teams to choose this category:

Table 4. Significant Text Units for the Thematic Category "Change"

Significant text units
"I worked from Monday to Saturday, 5 hours a day as a school assistant and 4 hours as a home assistant. Before closing from Covid-19 they would have increased my working hours by 6 hours. In total I should have done 34 h." "Right now, I work 7 and a half hours a week with the three children I followed at school and 2 and a half hours with the new boy. More or less about 9/10 hours per week. I don't work more than half an hour a day per child." (A., Male) "The professional routine was different. As for educational assistance: in the morning I was at school every day, where I carried out the activities planned with the support teachers or the individualized activities in agreement with the crew of the "Santo Stefano" rehabilitation center. In the afternoon, as an educational assistant ", I arranged socialization activities to be carried out once a week with some classmates. With the children assigned by the court, the activities were centered on the performance of the tasks and recreational-recreational activities." "Now I am making video calls: with children with autism spectrum syndrome, I plan and share activities previously with parents who help me make the video call (mother acts as mediator); for the children of the court: with one we carry out homework or play games online, with the other we talk to the child and support the mother in parenting. Now I do 5 / 6 hours per week." (A., Female) "The work routine was divided between morning and afternoon. In the morning I work at school: 2 hours at the nursery school, from 9:30 to 11:30 at primary school from Monday to Friday, on Saturday from 9 to 12 at primary school. In the afternoon I was from 14:00 to 16:00 at the kindergarten. From Tuesday to Friday I attended home care from 5:00 pm to 7:00 pm. I carried out 26 h per week." "Now we have activated video calls only for school users and I make 1 hour per week maximum. The activities are focused on clipping, drawing, cards, pre-writing activities. I tried with recreational activities, but the user did not react well, losing attention." (C., F., 28 years)

From the analysis of the text units and the reading of those transcribed above, the research team believes that the macro category "change" assumes a dual nuance. On the one hand, there is a change in the number of working hours and in the working routine, on the other in the planning and choice of activities.

Before the pandemic from Covid-19, the minimum working time carried out by a respondent was 18 hours, and the maximum working time of 40 hours carried out by 5 total interviewees. These working hours were carried out in attendance in schools, centers, and private studies. After the lockdown, the minimum working time carried out by an interviewee is 0 working hours and the maximum working time is 10 hours. These hours are all done online. Both before and after the pandemic, respondents say that team meetings, interviews with families and other professionals that co-design the life project for the people they work with, were and are free. The weekly routine was centered on the person: punctual and predictable schedules; home, school, rehabilitation, and sports activities. During the pandemic, the only routine was the family routine and video calls with educational figures: educators, assistants, and teachers.

The planning of the activities before the pandemic was full of objectives and purposes that could be carried out in the presence and centered on the potential of the users. The interactions with the rest of the world were very important especially in some problems: autism, women who survive violence, ... During the pandemic, the activities mediated by technology according to all the respondents are very limited and their success is connected to the executive functions that each person owns. The interviewees mainly plan recreational activities rather than individualized activities aimed at the life project of people. "Video calls are a time to keep in touch with users for us and for them." (M., M.), "Half-hour video calls are not enough to continue the person's life project. They are mostly support to the family. " (R., F., 46 years). As emerges from the interviewees' words, the activities carried out thanks to the calls are centered on the support of users and their families, although this competence does not fall within the educational work of these figures. Thanks to the collaboration with the support teachers, only 3 interviewees continued to support teaching for three children with disabilities aimed at preparing for the state exam for secondary school. Some interviewees who also carried out other professions have considerably reduced the

number of enhancement courses, individual and couple therapies, and online psycho-pedagogical consultations compared to in-presence. The motivation according to the interviewees is twofold, on the one hand, the technological tool limits the interaction, on the other the re-planning of the meeting for some disabilities is difficult. The second conceptual category is "technology: choice, and purpose". Before inserting the significant unit of text that brought out this category, it is necessary to make a clarification in the choice to activate this service for families. The choice to activate the video call service was born from the collaboration between municipalities and cooperatives that coordinate the educational figures of school assistants and home attendants. Within the same collaboration, the daily duration of 30 minutes of video calls was chosen for each person taken in charge by the educators. The educators proposed this service to the families of the people taken in charge. Based on the acceptance of families and the skills and technological possibilities, respondents chose the person-centered technological tool. In Table 5, the significant text units for this category are shown:

Table 5. Significant Text Units for the Thematic Category "Technology: Choice, and Purpose"

Significant text units
"Video calls are on WhatsApp and are used to feel close even being far away. The relationship is blocked by the screen, it is not immediate and simple with the screen. The crisis situations of children are not easily managed independently, since the support of a third person is needed." (C., F., 28 years)
"I use WhatsApp, as it is a tool used by everyone. Video calls allow us to maintain at least visual presence, they are used to say: "We are there, you are there. See you, feel how they are. I really like hearing them and I am very pleased to see them, I feel them close even if far away." (C. F., 48 years)
"Before the pandemic I did not use any technological tools. Sometimes the computer. At a working level, I use the app for computer learning and zoom and messenger with my mobile phone. Zoom is very useful, since I can share the screen and the connection is good. These technologies are useful for keeping in touch with the people followed by seeing us and chatting." (E.)
"I use WhatsApp, Zoom and Skype for work. During the pandemic I met and used Zoom for the first time. It is very valid, although I prefer to use WhatsApp. [...] The absence of presence and the lack of seeing non-verbal communication are the weaknesses of technologies. Their immediacy, speed and collective usability are strengths. At worker level, the disability with which we work can be a source of obstacles in the use of technologies." (Fed.)
"I use technology to maintain the relationship and give children a routine with the activities I plan. I too would be very pleased to maintain the relationship with the children. The simple calls have no weaknesses, the performance of the activities are different online than vis a vis." (G., F., 27 years)
"The tools used are calls and video calls via whatsapp in agreement with the family members without having to install new apps and having to train." (G., F., 28 years)

The cross-sectional analysis revealed that some interviewees used technological devices with the people taken in charge before the Covid-19 pandemic. 4/30 the computer was the technological means of reassurance during the stereotypies of children with autism spectrum syndrome and 2/30 exchanged messages, photos, and videos with family members on the activities required to be carried out in the afternoon. During the pandemic, the technological tools chosen by the interviewees for the following people are WhatsApp (26/30), Skype (8/30), Zoom (4/30), WeSchool (3/30), Google Meet (2/30), Jamboard (1/30), Messenger (1/30), Learning app (1/30). (Table 6)

Table 6. The Choice of the Technological Tools

Technological tools	Number of respondents
WhatsApp	26/30
Skype	8/30
Zoom	4/30
WeSchool	3/30
Google Meet	2/30
Jamboard	1/30
Messenger	1/30
Learning app	1/30

In Table 7, the research team summarized the purposes in the use of technologies for the interviewees: keep in touch with one of the reference figures: school assistant and/or home attendant; support families in managing the difficulties associated with the lockdown in response to the behavior of the people taken in charge; encourage a daily routine of activities also with the assistant; support in the use of technology for educational activities.

Table 7. The Purposes of Using the Technology

Purposes	Number of respondents
Keep in touch with one of the reference figures	23/30
Support families in managing difficulties	20/30
Give a daily activity routine	5/30
Support in the use of technology for educational activities	3/30

The third conceptual category was called "online and face to face interaction: the strengths and the weakness". In Table 8, you can read the significant text units that led the research teams to choose it as a conceptual category.

Table 8. Significant Text Units for the Thematic Category "Online and Face to Face Interaction: The Strengths and the Weakness"

Significant text units
"Conducting online education is very difficult: I cannot go home and monitor the situation from the inside." […] "With children with autism spectrum syndrome, the screen is not a facilitator, it lacks attention and little understanding of the purpose." (V.) "Home attendant cannot be done online." (R., F., 46 years)
"Online interaction allows a lightening of everyday life. The online relationship is different, the difficulty of understanding given that some of the children have phonological problems, their presence, their gaze. Online it is difficult to understand the non-verbal behavior related to children's requests. In presence we could understand each other with a glance. Contact in presence with some disabilities is different from online." (L., F., 35 years) "The online work is very limited." (L., M.) "The lack of the person in presence and the inability to carry out actions is negative in online interaction. If the boy or girl has a lowering of attention and goes from the front of the screen, I cannot chase them and bring them back to the activity." […] "If they understand online activity and enjoy doing it, they increase attention. Pleasant activities are not always possible." (G., F., 28 years) "Interaction with the computer is an attractive tool for some people and I can work well with them. Despite losing some practical skills such as the use of fine manual skills, the use of the pen, handling, …" (G., F., 35 years) "The learning process is blocked, despite the increase in the relationship of trust, thanks to the calls and video calls on Skype." (F.)

The fourth conceptual category is "mediation of families" thanks to which according to the interviewees, the use of technology for the purposes indicated above could not have achieved the same objectives set. (Table 9)

Table 9. Significant Text Units for the Thematic Category "Mediation of Families"

Significant text units
"Online interaction does not lighten the family, but the creation depends on the half hour spent with me. Ex: person with phonetic problems, the mother plays an important mediation role, prepares the cards sent by me previously or repeating the delivery, ..." (L., F., 35 years) "A child, thanks to the support with her mother, manages to work and is very happy to see us and spend time with us; with the child with an autistic spectrum, work is more difficult, since he has been doing aba for many years and since it is based on contingent reinforcement, on video call I cannot give it to him despite the presence of his mother." (G., F., 35 years) "I prepare and share activities previously to parents who help me make the video call, mom plays the role of mediator." (A., F.) "It is very difficult, since I follow as an autistic child who is difficult to manage, the work is very limited, I have to thank the parent who supports me in the activities." (l., M.) "Distance teaching is very difficult for the children I follow both in terms of attention and interest. Parent support is always needed." (C., F., 49 years)

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FOR ALL

The fifth and final conceptual category that emerged from the longitudinal analysis and confirmed by the transversal one is the "necessity of training on the online education". The research team reverses the significant text units for this category in Table 10.

Table 10. Significant Text Units for the Thematic Category "Necessity of Training on the Online Education"

Significant text units
"I trained myself on platforms that I didn't know" (P.)
"Train yourself on how to manage crises or vulnerable situations of remote children and how to make video calls as effective as possible." (C., F., 28 years)
"We would need distance learning training, we invented a bit in this period." (P.)
"Train yourself on how to do a distance lesson and on distance guidelines." (C., F., 23 years)
"A course organized to talk about user privacy in the use of technology." (R., F.)
"Laboratory activities through the learning of disciplines or curricular teaching that stimulate children with simple activities." (A., M., 43 years)
"Train yourself on how to relate and how to support yourself with parents." (A., F., 35 years)
"Train yourself on new learning strategies in multimedia and technological emergency situations." (E.)

Results, Conclusions and Recommendations

In this paper, the research team presented the results of the cross-sectional analysis that compared the previously performed longitudinal analysis. Starting from the research question, which the researchers asked at the beginning of the qualitative research: "How did the educator re-design his professionalism during the Covid-19 emergency?" the results transcribed previously reveal a clear answer.

The educators have re-designed their professionalism in the first place by including technological ones in the multitude of educational tools. The technological tools chosen are those best known by the families of the people taken in charge and in whom the people themselves had a strong competence. The most used technological tool is WhatsApp. The whole population has been using it for many years. WhatsApp does not have the same features as Skype or Zoom but is known by all and the most immediate in use. The people have taken in charge by the interviewees already knew how to use it and could have it on the smartphone, device owned by any family in Italy. In addition to adding new educational tools, the respondents had to re-plan their working hours and their routine by putting aside salary hours on the one hand and educational hours on the other. The lockdown in Italy severely penalized the private sector within which the educational figures interviewed work, reducing an extremely important axiom for the educational sector: face-to-face interaction. A fundamental interaction for all the problems that people have taken on by respondents. It is no coincidence that the lack of face-to-face interaction generated the failure of online interaction: the lack of eye contact, the lack of understanding of non-verbal behavior, the possibility of crisis management of the person with a disability,… life projects designed with all the figures revolving around the person with problems have stopped. The interviewees have set aside individualized activities aimed at strengthening deficit areas with recreational and activities and with support for the family and the user. This support is normally not assigned to educators, but in this Covid-19 pandemic, data shows that the same families requested support in the management of their child in the organization of the new routine, in the management of the crisis, in the management of possible domestic violence,… The more serious the difficulties faced by the respondents were, the greater the demand for family support from users. A request for support that cannot be completely answered online, also giving greater skills to the parent. The parent himself was asked to play the role of mediator in the activity carried out since online interaction was not enough to be able to carry out the activities designed by the respondents. Parents during this period have been a very important and necessary resource. They have been asked to take on roles that can normally be carried out by people trained with a minimum of 3 years of degree or course. This request for family mediation has a cause in the low technological competence of educational figures. The lack of technological competence emerged from the responses and the request for targeted training on the online design of activities that favor the maintenance of attention, the continuation of

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learning even online, the support strategies, and crisis management not in attendance. In addition, the request for family mediation lies in the difficulty of planning for all problems individualized activities, and support mediated by technology on the basis of in-house planning. Designing online activities and planning face-to-face activities have different objectives, purposes, and tools. Precisely for this reason, the research team distances itself from the definition of teaching given during the pandemic period by Covid-19. One cannot speak of Distance Learning, but one must speak of Emergency Teaching. With the known tools educational figures have tried to continue the acquisition of learning, but the known tools are not those functional to online learning.

Thanks to this qualitative research, the researchers gave voice to the educational figures who are experiencing this emergency firsthand and who can bring out the strengths and weaknesses of their design during the quarantine.
This qualitative research represents a starting point because the researchers are carrying out other interviews with the job category of the interviewees and also annexing other categories of workers: teachers and engineers. The geographical selection criterion of the Marche region is certainly a limit, which has already been overcome in interviews with other categories of workers. The strong point is the possibility of all those who deal with training to understand the work done during the pandemic, the training requests of educators, and design targeted training on online training for and with educational figures.

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