

Rethinking Learning Practices in the Covid-Era: Indications for Teachers and Educators

Maria Luisa Iavarone, Francesco Vincenzo Ferraro

Abstract:

The pandemic produced changes in the organisation of the socioeconomic tissue. The educational system, in particular, underwent a forced reconsideration of classrooms' space and time. To preserve inclusivity and wellbeing and to compensate for the lack of body-cognitive experiences, our research team worked with the educational systems before and during the pandemic, providing educators with effective indexes concerning didactic practices. What emerged from our studies is the necessity to help students and teachers to cope with isolation, boredom, and bullying. The following document aims to report the multidisciplinary approaches developed by the international team from the University of Naples Parthenope (Italy) and the University of Derby (United Kingdom).

Keywords: Anti-social Behaviours; Civic Education; Digital-Ecosystems; Education

1. The COVID-Era Call for Action: It Is Time of Profound Change in Education

The following session summarised part of our research finding along with the hypothesis and theories that are leading our research proposals and ideas. A reflective perspective upon the current situation in light of the latest pedagogic theories. During the pandemic, we understood the need to rethink our lives profoundly. In only one year, we have assisted to profound changes in the organisation of our life systems: in health, socio-economic, work organisation and education (Save The Children 2020; Sarkodie and Owusu 2021; Yang and Deng 2021). In particular, the school system has undergone a forced reorganisation that has affected the characteristics and quality of the teaching space, the learning environments, the forms and times of learning and knowledge (Basri et al. 2021). Additionally, governments have reacted differently to the pandemic with different lockdown and restriction strategies, which has additionally produced socio-economic gaps with profound influences in the educational system (Katić et al. 2021). What the pandemic has generated can be, in other words, synthe-

Maria Luisa Iavarone, University of Naples Parthenope, Italy, marialuisa.iavarone@uniparthenope.it, 0000-0002-9246-2696

Francesco Vincenzo Ferraro, University of Derby, United Kingdom, f.ferraro@derby.ac.uk, 0000-0002-4902-7760

Referee List (DOI 10.36253/fup_referee_list)

FUP Best Practice in Scholarly Publishing (DOI 10.36253/fup_best_practice)

Maria Luisa Iavarone, Francesco Vincenzo Ferraro, *Rethinking Learning Practices in the Covid-Era: Indications for Teachers and Educators*, © Author(s), CC BY 4.0, DOI 10.36253/979-12-215-0151-3.19, in Vanna Boffo, Regina Egetenmeyer (edited by), *Re-thinking Adult Education Research. Beyond the Pandemic*, pp. 219-228, 2023, published by Firenze University Press, ISBN 979-12-215-0151-3, DOI 10.36253/979-12-215-0151-3

sised in a sort of *educational atopy*, in the literal etymologically sense, from the Greek language alpha privative *atopos*, meaning without places. Hence, teaching during the pandemic has lost the proper places of education related to the coordinates of space and time characteristics of traditional teaching referring to a physical place (e.g., the classroom) and the time of lessons. The changes we experienced have therefore produced the era of post-didactics characterised by the *sunset of class time* where many pupils, and also many teachers, have experienced a severe discomfort in recognising themselves within a system deprived of the essential coordinates of orientation that act as an anchor for the formative experience: bodies, spaces and times codified, tangible objects, books, notebooks, blackboards and desks (Ferraro et al. 2021). The time we are living makes it necessary to monitor the growth of these *new digital-ecosystems* to reduce inequalities, prevent the risk of exclusion and protect students and teachers from antisocial behaviours (Riley 2007; Sandford et al. 2008). Hence, it is necessary to monitor the educational sustainability, of these new ecosystems, for a *civil-digital*, which means careful digitalisation to include as many citizens as possible in the processes of information and education in a lifelong learning perspective (Iavarone 2019). These areas of interest have become nowadays extremely topical, as the gap between education and metaverse is being filled (Duan et al. 2021; Sparkes 2021). In the *atopos* schools, the bodies learning experiences connected with educational, physical activities and personal experiences (i.e., embodied theories) (Shapiro and Stolz 2019) came out deeply mortified. However, it is well established how much the body experiences constitutes an essential pillar in the teaching-learning relationship (Immordino-Yang and Gotlieb 2017). It is also known that the absence of body-related experiences can produce a deep gap in the socio-cognitive interaction of adolescents (Von Hofsten and Rosander 2007; Pollatos 2015; Kosmas et al. 2019). Therefore, to preserve opportunities for inclusion and well-being in adolescence, our research team worked on embodied theories and reported the education system's effects before and during the pandemic with young adolescents (age range 13-19 years old), providing educators and teachers with effective indexes on how to support educational and didactic practices that can compensate the lack of body-cognitive experiences during distance learning (Katić et al. 2021).

What emerged from our studies is the necessity to help students and teachers to cope with phenomena of isolation, boredom and bullying, caused by a lack of physical interactions and cognitive experiences (Ferraro et al. 2020). The research team also showed how important it is to integrate embodied theories and physical activities in asynchronous *emergency-teaching*. These aspects are necessary to produce post-COVID education and regain positive cognitive interactions. On this pattern, by integrating motion-physical activities and learning outcomes, we have recently demonstrated how an intervention of unstructured dance practice, named Bodytasking (Aruta and Ambra 2020), is beneficial to be used with young students with positive results in terms of engagement and cognitive outcomes (Aruta et al. 2021).

In the past months following the lockdowns period, teachers and students have returned to class with a blended approach (Chimbunde 2021), in which is observed a combination of asynchronous, synchronous, distanced learning along with in presence, in class, teaching. However, the scenario does not keep into consideration left-behind children, or students that cannot afford high-speed internet connection and high-tech devices, as we have reported being an issue in the urban areas where the risk of delinquency is high (Ferraro et al. 2020; Iavarone and Trocchia 2020). Additionally, students perception of working remotely might leave behind the less motivated students that need to be able to self-manage their time and improve their Information and Communications Technology (ICT) skills in order to keep up with teacher expectations (Kant 2020; Tropea and De Rango 2020; Ares et al. 2021). Moving forward in the post-pandemic scenarios we believe that a blended approach can be successful only if it addresses the potential lack of engagement and the necessity to bring all students to the same level of inclusivity and technologies (Bussey 2021). Additionally, we propose an integration to the blended approach with the combination of sport-related intervention that would positively affect students' engagement (Ambra et al. 2020; Aruta and Ambra 2020; Aruta et al. 2021) and will decrease the concurrent risk of sedentary behaviours (Meyer et al. 2020). Our research has used a dance-based approach, however future studies should be introduced to introduce additional distanced-sports activities (Bates et al. 2021).

2. The COVID-Era Call for Action: The Methodological Approaches

The following session summaries the approaches described in the previous section. The aim is to clearly describe the rigour and robustness of the methods that lead our research approaches and upon which we are rethinking the pedagogical theories. Finally, we aim to share these approaches hoping that this information will produce a solid starting point to open discussion upon education and how we all can rethink it. Our methodological approaches started with the development of a predictive questionnaire: the SMART. The SMART is an acronym for the words Sports, Meals, Activities, Relationships and Technologies. It was initially developed to produce a predictive index of students' behaviours that can be used by teachers and tutors to help young adolescents cope with situations of danger (such as criminality, domestic, drug or technology abuse) (Ambra 2019). The SMART has been fully published, and now the multidisciplinary team is working on its validity and reliability. The following steps would be to translate the questionnaire (currently in Italian) and adopt it in other territories where the risks of youth antisocial behaviours are equally high. In parallel to this research, the multidisciplinary team is exploring the potential use of telecommunications or synchronous online interventions in order to produce a high level of engagement with adolescents and students. Due to the pandemic synchronous online teaching structure, and Distanced Learning, has become the new normality. Hence, we have been collecting interviews and data from our students who reported a lack of engagements and interest in distances learning

classes. To cope with this, we are currently experimenting with interventions that combine physical activities with teaching. In particular, the first approach that we developed was to introduce a dance-based intervention, called Body-tasking, similar to some extent to the well-known Biodanza intervention (Toro 2008; Altamirano Quevedo et al. 2021), that combines a holistic unstructured dance base practice tailored for young adolescents. The first study that we have published using an unstructured interview showed great engagement from the students who were able to follow their dance instructor from their home via dedicated training rooms (e.g., Skype, Zoom, Microsoft Teams). The results have been integrated in further studies in which we will be looking at comparisons between the Bodystaking in distanced learning with other forms of dance-based intervention to increase the link between physical activities and cognitive capacity in the novelty of the metaverse (Ning et al. 2021). Following a similar approach, the multidisciplinary research team is also working on Functional Advanced Didactic (FAD). The project is extremely novel and is designed to integrate physical activity with standard didactic in order to develop a physical oriented approach in which young students can learn while they play. The Functional Advanced Didactic is currently under investigation and soon we will be able to provide the first evidence and guidelines to share with the national (in Italy) Ministry of Education. We are hoping to experiment with the Functional Advanced Didactic in schools in 2022 and progress on the development of this intervention. Another aspect that the research team is investigating, is in relation to prevention and rehabilitation in particular the role that education has in producing a higher level of awareness in populations at risk (e.g., older adults or minority socio-cultural groups). As a result of that, the University of Naples Parthenope (Italy) has currently fostered the Master in Media Education. Whereas in the broad area of training management, the course prepares qualified figures in distance learning technologies and experts in digital media education with particular reference to social inclusion and discomfort prevention activities within schools, organisations or cooperatives (Iavarone and Iavarone 2004; Iavarone 2009, 2019). The aim is to produce graduates that will find employment in public and private organisations (such as schools, third sector entities, social cooperatives, government institutions, etc.) as an expert in the design and implementation of educational, learning and media education interventions concerning to inclusion activities social and discomfort prevention. This pioneering master's degree, developed at the University of Naples Parthenope (Italy), intends to combine the previous research and increase the knowledge on the topic. Another important aspect of our research concerns postoperative and intensive care unit rehabilitation and the perception that patients had of their treatments and experiences. The purpose is to increase awareness, self-management, and overall wellness in the public health system. A recent example of our work can be found in the latest publication about respiratory muscle training and respiratory physiology (Ferraro 2021) in which clinical, sports and educational approaches are linked together under the aim of increasing people wellness. Finally, we are currently elaborating an integrated technology-didactic system that would

allow students to learn to live why perfume physical activates (such as biking or running) in a virtual environment. The purpose is to increase awareness, inclusivity and motivation in the younger generation, who are more comfortable engaging with technologies (Tootell et al. 2014; Jha 2020; McCrindle 2021).

The articles and research described above are part of the activities that the research team based at the University of Naples Parthenope (Italy) (supervised by Professor Maria Luisa Iavarone) and at the University of Derby (UK) (supervised by Dr Francesco V. Ferraro) have organised to understand and develop novel approaches that would allow and increase the discussion upon education. We have summaries the structure of our methodological approach in Fig. 1.



Figure 1 – The simplistic structure of the graph is an opportunity to consider the key steps that we are taking in developing novel interventions for education. In between each point, there is the collaboration of the whole research team that is collecting data, with mixed methods, developing intervention and reporting the results in open access journal that would increase accessibility and discussion on the topic.

3. Conclusion

The document reported our ideas on education and how we intend to rethink the educational approaches in the post-COVID scenarios. In particular, we have reported part of our results and publications and described in detail our methodological approaches. Our studies from the beginning of the pandemic are partially summarised in Tab. 2.

Table 2 – Part of the most recent work that the multidisciplinary team has produced since the beginning of the pandemic and that have been informed our theories and practices in re-thinking education.

Authors	Year	Title	Results
(Iavarone et al.)	2019	An Experiment of Civil Education the Master of Parthenope University in “Sports educator for risk prevention”	The manuscript explores the experience carried out in a shared vision of ‘civil pedagogy’ and ‘education for territoriality’, presenting the novel project related to the Master in Sports Educator for risk prevention now activated at the University of Naples Parthenope.

(Ambra et al.)	2019	Lo Sport come dispositivo educativo nell'ottica della Pedagogia del Benessere. Una ricerca pilota nell'ambito del Progetto Vivere SMART	The document produces a brief preliminary evaluation of an early stage of the SMART questionnaire with 128 young adolescents.
(Ferraro et al.)	2020	Evaluation of Health-Habits with the S.M.A.R.T. Questionnaire: An Observational Study	This paper is the first to report the use of the SMART questionnaire with a sample of 501 adolescents. The results showed a high response rate (93%) and significant differences in the use of technologies and relationship with food in different sex and age groups, respectively.
(Ferraro et al.)	2020	Distance Learning in the COVID-19 Era: Perceptions in Southern Italy	The study is amongst the first to report the effect of the pandemic from a student-centred perspective and produces information to develop future research on asynchronous learning. In particular, the results showed significant variation in the level of study related anxiety.
(Aruta et al.)	2021	Bodytasking. Analysis and perceptions of a distance dance experience	The study showed the first results of a dance-based approach (i.e., Bodytasking) performed in distanced learning with 6 to 10 years old students. Results showed good adherence to the activity and a high level of engagement to the programme. The results are auspicious and suggest implementing the pedagogic discussion toward physical activities in distanced learning.
(Ferraro et al.)	2021	Students' perception of distanced learning: a retrospective analysis	The documents follow up from previous research on students' perception of distanced learning and deeply explore the variation of perception from the early pandemic to the more recent period. The results suggest that students have normalised the current situation and feel more negligible effect by distanced learning.

(Katić et al.)	2021	Distance Learning during the COVID-19 Pandemic. A Comparison between European Countries	The research is a comparison between Italian and Central Slovenia students. In particular, the manuscripts explore the students' perception and investigate the potential correlation between the two EU countries. The results showed that it is recommended to foster collaboration between EU countries and to work to prevent students' social isolation.
(Aruta et al.)	2021	The ARTUR LAB: a social intervention for a sustainable well-being education	The operational guidelines of the National Strategies and the 2030 European Agenda for Sustainable Development towards educational activities underline the importance of fostering creative, inclusive, and positive communities in resilient territories; on this topic, The ARTUR Lab described in the document aims to implement pedagogic interventions to ensure the timing and effectiveness of education in territories at risk of adolescents' antisocial behaviour.
(Ferraro et al.)	2021	Preliminary Data from a Dancing Practice in Distanced Learning	The manuscript investigates the effects of a validated dance intervention in distanced learning. 25 adolescents (3 male, 22 females; age range 14-17 years old) were recruited and performed 15 lessons of 2 hours each. Preliminary data are currently under investigation.
(Aruta et al.)	<i>In press</i>	Pedagogic intervention for health: Biodanza a narrative systematic review	The document, currently reviewed and in press with the Journal <i>Movimento</i> , produces a systematic narrative review of the well-known Biodanza Intervention and compares some of the findings relative to Biodanza with the dance-based approach developed by the research team named: Bodytasking.

The aim of the whole manuscript is to open a table of discussion and reflection on pedagogic topics, and in particular of the high level of disengagement and dropouts that some EU areas are experiencing due to distanced learning and blended approaches. Our studies have been carried out in difficult socio-cultural areas in the South of Italy to raise awareness of the current issue in relation to high level of youth antisocial behaviours (Iavarone and Trocchia 2020; Ferraro et al. 2021). In conclusion, it is really important to explore new scenarios and take the current dramatic situation as an opportunity to rethink education. To build more engaging, more inclusive, more productive, greener, and

more positive schools for our students now (cross-pandemic) and after (post-pandemic). In other publications, we have called this a *call for action*, a call for responsible adults, responsible tutors that need to provide support and assist the younger generation in coping against the post-COVID Era and the raising complex social, cultural, economic and health challenges. Therefore, we recommend future publications to explore more in detail the overall mental health and its association with learning outcomes in the younger generation and build an up to date database that would allow to monitor and predict situations at risk of antisocial behaviours.

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