R-EACH REPORT

OF THE PROJECT

EACH – Early Childhood and Sustainable Citizenship Routes in the Digital Era

2023-1-PT01-KA220-SCH-000156194

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I. Introduction

In this R-EACH report our aim is to offer an overview of relevant information and educational interventions at European and national levels to raise awareness about digital transformation during early childhood (EC). This Report has the triple mission of: i) offering a review of essential scientific literature and European guidelines; ii) identifying relevant examples of previous projects, and iii) verifying how partners' previous experiences match scientific and governmental recommendations in order to take out advice to best guide future projects and practices. In what follows, we will adhere to this structure in order to address the challenges and objectives we have set out to achieve.

Digital transformation offers two very different kinds of directions: on one hand it seems to facilitate and support many human activities, on the other hand it makes people feel lost (lots of information, lots of new technology to learn and constantly adopt).

It is no surprise it makes a similar impact on education: teachers and students are happy to have the technological support, and yet teachers feel that it can totally transform education, and no one is prepared for the shift.

Importantly, teaching feels no longer sure of taking the adequate direction for education. The students are perhaps less aware of the long-term impact the digital transformation can have in their own lives. Mostly the student population feel the impact by recognizing that financial differences can make a great difference in how people can participate in this transformation.

General opinion about what to do is divided: some people think controlling technological use is advisable as to ensure its use in the best possible way; and other people feel education must adopt the digital transformation from the very early age as to ensure its use in the best possible way. It is by now well confirmed that Early Childhood Education and Care (ECEC) is linked to social and economic outcomes such that positivity in the short and long term are grounded on pedagogical practices.

The common understanding is that, given that it is not possible to reverse or annihilate technological development, it is of the utmost importance to guide everyone so that the technological use is the best possible. This is true and guidance will ideally be given as early as possible, even though public opinion and the experts are still divided about how to do it best in what concerns Early Childhood Education. For example, it has been documented that the difference in PISA mathematics scores between students who have primary-education versus those that do not is significant and measurable to more than a year of formal training (PISA 2013), which indicates that similar difference may count for other educational elements. Other consider that the best way to offer children guidance is by postponing technological use as much as possible until they reach an age in which it is easier to adopt a critical take on technological use. However, this control on blocking technological use seems virtually impossible with the widespread of mobile phones.

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If educators address familiarity with digital world at the Early Childhood Education and Care (ECEC) from as early as possible it may be possible to connected it from the start with a critical stance. Given that skills beget skills, introducing kindergarten children with a critical and collaborative mode of participating in the digital transformation may be key to ensure a responsible relationship with the digital world. The benefits will be far from being merely cognitive and include social and cultural adaptability for the future. Ideally the digital education should only make sense to the extent that it empowers and amplifies the meaning beyond the digital world.

Thus, the challenge may be best equated not in terms of establishing restriction to the use of technology in the classroom, but how to make it valuable for enriching the development of children, given that ECEC cannot remain indifferent in face of the ongoing digital transformation (Dias *et al.*, 2011). This does not mean letting children use their mobile phones in classrooms and schools at will, of course. It means engaging with children with education for the digital transformation that they will be incapable of using the technological devices without linking it to a meaningful life.

One important way to foster it is by elaborating and pursuing educational projects that indicate possible solutions for schools and educators. The present Report R-EACH aim is to identify the type of general social scenario that can be found in schools and universities that undertake this interest, while simultaneously identify major problems and challenges that can ground elaborating a Best Practice Report that can provide criteria to organize and guide a portfolio which can then inspire educators in the field. We will rely on information taken from essential scientific literature as well as European plans and recommendations on these matters. Unsurprisingly given the crucial importance of the issue, the literature is immense and impossible to digest for individual educators, so in what follows we will present some of the main conclusions, objectives and strategies outlined by the European Commission in order to achieve what it seems to be the common goal of fostering digital education in all European countries.[1]

[1] Digital Education Action Plan 2021-2027 - Resetting education and training for the digital age, European Commission, 2020.

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II. Review of Essential Scientific Literature and European Guidelines

The European Union (EU) has implemented various educational interventions to promote digital literacy and competencies from an early age, understanding the importance of building these skills during the formative years of early childhood. This overview aims to summarize the key initiatives, frameworks, and programs established by the EU to raise awareness and foster digital competences in early childhood education, as well the guiding principles behind all those initiatives and the priority areas and actions.

1. EU Policy Frameworks and Strategies

The Digital Education Action Plan (2021-2027):

- Focuses on enhancing digital literacy and competences across all levels of education.
- Emphasizes the importance of integrating digital technologies into early childhood education.
- Encourages Member States to develop national strategies for digital education.

The European Framework for the Digital Competence of Educators (DigCompEdu):

- Provides a detailed framework for educators to develop their digital competences.
- Highlights the need for educators in early childhood to integrate digital tools and resources effectively.

2. Key Educational Interventions and Programs

I. **Coding and Computational Thinking Initiatives:**

- EU Code Week: An annual initiative that encourages children of all ages to engage in coding and computational thinking activities. Specific resources and activities are designed for early childhood to introduce basic coding concepts in a playful manner.
- eTwinning: A platform that connects schools across Europe, allowing teachers and students to collaborate on projects that often include digital literacy components.

II. **Digital Literacy Programs:**

- Better Internet for Kids (BIK): Focuses on creating a safer digital environment for children and provides resources for educators and parents to teach young children about safe and responsible internet use.
- Safer Internet Day: An annual event that promotes safer and more responsible use of online technology and mobile phones, particularly among children and young people.

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III. **Early Childhood Education and Care (ECEC) Initiatives:**

- Eurydice Report on Digital Education at School in Europe: Provides insights into how different European countries integrate digital education into their curricula, including early childhood education.
- European Schoolnet: A network of 34 European Ministries of Education that works on innovative teaching and learning methods, including digital literacy projects targeting early childhood.

3. Resources and Tools for Educators

I. **European Schoolnet Academy:** offers online courses and webinars for educators to enhance their digital competences and learn how to integrate digital tools into early childhood education effectively.

II. **SELFIE (Self-reflection on Effective Learning by Fostering Innovation through Educational Technologies):** a free tool designed to help schools assess how well they are using digital technologies for learning. It includes specific adaptations for early childhood education settings.

III. **European School Education Platform:** provides a wide range of resources, including lesson plans, teaching materials, and best practices for integrating digital competences in early childhood education.

4. Main Conclusions from Stakeholder Consultations (Teachers, Students, Parents)

conducted from February-September 2020 (during the COVID crisis)

COVID-19 crisis emphasized the need for high-quality digital content and inclusive education.

Key concerns raised include i) managing information overload, ii) protecting personal data and iii) distinguish facts from false information and other false content online.
Urgency emphasized for i) boosting digital skills of educators and implementing effective digital education strategies, ii) integrating digital technology into education based on quality standards and guidelines, and iii) addressing digital divides, ensuring accessibility for all learners.

Parents played a significant role in enabling learning but faced challenges, related to socio-economic factors and lack of support for online learning. Socio-economic factors influenced parents' ability to support their children's learning. Given this, online learning resources and content need to be more relevant, interactive and easy to use.

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5. Guiding Principles underlying all Educational Interventions to promote Digital Literacy and Competences

- Education and training systems must adapt to digital change, with a growing momentum for sharing best practices and developing common tools at the EU level.
- Key principles include ensuring high-quality, inclusive digital education, enhancing dialogue and partnerships, and promoting equality and inclusiveness.
- Digital competence should be integrated into all areas of teacher professional development.
- Digital literacy is essential for navigating a digitalized world, and basic digital skills should be part of core transferable skills.
- There is a need for high-quality digital education content and flexible learning opportunities, including the promotion of short courses and micro-credentials.

6. Priority Areas and Actions

The European Union aims to address the opportunities and challenges of digital transformation in education and training through two strategic priorities:

1. **Fostering the development of a high-performing digital education ecosystem:**

- Promote high-quality and inclusive digital education through collaboration among governments, education institutions, private sector, and the public.
- Enhance digital capacity planning and development, including infrastructure, devices, organizational capabilities, and connectivity.
- Provide digital education content and training in digital skills for educators: launch an online self-assessment tool for teachers, SELFIE for Teachers19, based on the European Framework for Digital Competence of Educators, to help identify strengths and gaps in their digital, technical and teaching skills.
- Specifically, the The Going Digital Toolkit helps countries assess their state of digital development and formulate policies in response. Data exploration and visualisation are key features of the Toolkit. https://goingdigital.oecd.org/?_ga=2.250551173.2074542242.1706030038-595000539.1706030038

2. **Enhancing digital skills and competences for the digital transformation:**

- Develop common guidelines for teachers and educational staff to foster digital literacy and tackle disinformation through education and training: develop a European Digital Education Content Framework (guiding principles for specific sectors of education and their needs).
- Address gender disparities in the digital sector and encourage women's participation.
- Update the European Digital Competence Framework to include AI and data-related skills.

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- Propose a European Digital Skills Certificate and improve monitoring of student digital skills.
- Use Erasmus cooperation projects to support the digital transformation plans of higher and adult-education institutions.
- An important backup literature to consult is Empowering Young Children in the Digital Age (to read online) https://www.oecd-ilibrary.org/sites/30e36f0fen/index.html?itemId=/content/component/30e36f0f-en

The main bullet point involves establishing a European Digital Education Hub to support Member States, monitor the implementation of the Action Plan, and promote cross-sector collaboration. Furthermore, the Action Plan aims to increase the digital impact of the Erasmus programme and enhance international cooperation in digital education to address the global digital divide. Projects such as EACH can only address the issues that are within the reach of the educators in the classroom and thus focus mostly on designing possible pedagogical material, pedagogical approach, and self-assessment tool for ongoing educational practice.

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III. Three Difficulties

Drawing on the essential sources of information about EU policies, the R-Each report aims to provide a summary by pointing out three difficulties that educators will encounter in putting to practice the EU recommendations. One of the difficult issues about Early Education on Digital Transformation is how to provide depth and profundity in learning. Another difficulty concerns the way in which false and the fake appear in the digital world. Thirdly, the issues upon which the digital transformation does not happen in a vacuum. It is virtually impossible to provide a clear guidance by reflecting on digital transformation in the abstract that goes beyond good judgment. It is in the details that digital transformation can capture the concrete difficulty and challenge.

1. Depth of Profundity in Learning

One of the difficult issues about Early Education on Digital Transformation is how to provide depth and profundity in learning. Educators must always have in mind this issue. Not just to phrase it among themselves, and as a warning sign in their practice but as to find ways to convey continuation and increase of quality in digital technologies.

Take the case of Music: people learn to play an instrument, and this immediately mean that they first learn a piece of music, then they learn how to play it better and better, and then they continue to learn more complicated pieces of music. This provides music education with an important sense of depth that is hard to transfer to pedagogy in general. In addition, the learning of playing an instrument can also be reinforced by theoretical education (both of the history of music, as well as music theory). The fact that an instrument can be learned without formal training in music indicates how one can identify levels of proficiency and knowledge of music even in a state of ignorance, because even someone who doesn't know much about music theory understands that there is a part of the music world that one is no being taught. In addition, the world of music reveals that learning to play an instrument by the best masters it is a sufficient condition to attain excellence in performance, nor will increase practice by itself be sufficient, even if still decisive for playing well a musical instrument. This means that anyone who learns a musical instrument is inevitably also given a sense of ignorance and perspective about their limited knowledge. And by the time a person is a mature musician, that person already knows that the more you learn the more there is to learn. Almost no other area in education can offer this attitude as music does, and yet the example of music can be used as a compass as to guide educational practice in general.

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2. The False and the Fake

The trouble is so overwhelming that even adults have to be reminded of ways as to overcome the possibility of being tricked in the digital world.

There are important recommendations for safety and Educational Institutions inform how to best be cautious (see https://www.fcsh.unl.pt/nova-fcsh-assinala-o-dia-da-internet-segura-com-dicas/). These recommend the use of strong passwords, to avoid public networks which any person can access and avoid at all costs shopping online or bank account moves while using them, when strictly necessary, as well as using always a safely password to use a device such as a mobile phone or a computer, and format it as to be able to disconnect it and erase its memory in case of robbery or loss. Students can very easily from a very early age be warned to avid clicking in links which are sent by people they do not know, suspect any request which comes with urgency to act from people they do not know, and learn to interpret what sounds "too good to be true". In addition, it is crucial to educate people to react to images and languages as to identify lack of rigor in language and fake images.

Once adopted these recommendations can help live the digital education transformation more safely. However, the issue would be easy to settle if it were just a matter of following a set of recommendations.

3. Finding Subjects Matter to get Details – the Example of Sustainability

It is not feasible to provide a way to address digital transformation with all subject matters, at once nor all the time. This would require an almost complete encyclopedic knowledge to foresee how it can play out in detail in all possible topics and education fields. Nevertheless, without a subject matter of digital transformation it is not possible to understand how digital transformation will occur for the benefit of education and flourishing of humans and the planet. Yet, it is possible to illustrate it by exemplifying it with one subject area.

When there is a subject matter that grounds the digital education it is possible to set up focus group discussions and adapt the pedagogical project as to increase the educators' knowledge of the subject matter increasing the educators' ability to provide a learning experience. And because engaging educators in learning is crucial for the quality of excellence of their teaching in general, and especially important in Early Child Education, the digital transformation can contribute to elevate the quality of education.

This is observable in this very **Project Erasmus + EACH**. The various institutions involved organized focus groups for discussion of ideas relating to the subject selected. The questions are selected as to promote as much lively dialogue as possible, while collecting the educators' awareness and knowledge.

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Our questions for the focus groups were the following:

1. What is your involvement in the field of dialogical educational approaches?
2. Why do you think it is important to promote such approaches to deal with digital education?
3. Which type of training do you think is important to intelligently carry out the digital transformation?
4. What is sustainability for you?
5. What types of projects have your institution participated in within the framework of digital transformation-dialogical approaches-sustainability?

The questions can be adopted for any educational institutions that wants to use the material suggested by EACH project as to create awareness about sustainability. Fortunately, the environmental concern has been in place as to provide educators and institutions material to participate in the digital transformation intelligently. Based on the focus group we can provide the following general description (for more details see focus group summaries and results of written online questionnaire of members of all partners attached at the end).

People easily can recognize or find information that describes that Sustainability requires a holistic conception which cover three aspects: environmental, economic and social. While the environmental dimension is strongly introduced in education by teaching students good practices of recycling and that natural resources must be managed as to preserve the quality of the environment, the social and economic dimensions appear more in the background but are still part of a general educational concern as it is often recognized and taught of the value of cultural diversity and that social inclusion and elimination of poverty is needed as a fundamental condition for a just world, as well as the way in which economic activities must ensure that legal and ethical principles are respects.

In addition, the notion of sustainability and fostering it can be insightfully regarded as a concept in transformation in which people can integrate new forms of fostering and encouraging sustainability, and while the concept formation seems to be mostly cumulative, the flexibility of the notion opens the possibility to transform the meaning and still maintain its core definition.

It is crucial that digitality is connected to thinking and reflection and this is best achieved when it can also make educators and adults think. One way to promote the connection is to make sure educators are searching and focus on questions that make people think in addition to fostering moments of collaborative reflection in the classroom (either to prepare for the task, or to reflect on difficulties with the task, or as a final moment to critically dialogue about the task).

The digital transformation is in this way an opportunity to reorient the educational paradigm to processes of knowledge, and without losing sight of outcomes of knowledge acquisition, promote that the richness of acquiring skills that can be practice collaboratively with others is what makes learning worthwhile, such that even adults continue to want to learn.

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IV. Relevant Examples of Previous Projects - Best Practices and Case Studies

1. Case Study: Estonia's e-Koolikott:
Estonia has developed e-Koolikott, an online platform that provides digital learning materials for teachers, students, and parents. The platform includes resources specifically designed for early childhood education.

2. Case Study: Spain's Code & Play Initiative:
An initiative that integrates coding and digital literacy into early childhood education through games and playful activities. It aims to develop basic computational thinking skills in young children.

3. Previous Projects:

- **Youth Skills**
  Digitisation poses many dangers for children and young people, but there is a lack of scientific data on impacts and contexts of the digital activity of children and adolescents, and we still lack solid knowledge of how to avoid it. The EU-funded ySKILLS project will conduct academic longitudinal research in six European countries on risks and opportunities from the information and communication technologies (ICT) uses for children and adolescents between the ages of 12 and 17.
  https://cordis.europa.eu/project/id/870612
- **EACEA/38/2019 Erasmus+ Key Action 3**
  European policy experimentations in the fields of Education, Training and Youth led by high-level public authorities. VALIANT's objectives were to test the efficiency of Virtual Innovation and Support Networks as an approach which will contribute to overcoming teachers' sense of isolation and develop teachers' ability to operate effectively in online.
  https://valiantproject.eu/
  https://valiantproject.eu/wp-content/uploads/2021/03/VALIANT-Project-summary.pdf

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V. Recommendations

Best practice report should find ways to help educators to overcome the identified difficulties and guide Early Childhood education for the digital transformation such that it reinforces trust and the link to real-life processes that support the digital. Only this ongoing interconnection with life and the process to contribute to the digital sphere can ensure that the digital transformation empowers people and their activities in a sustainable way.

At the moment it is easy to ask that educators continue to learn how to engage with the digital transformation as to collect on a first and experience the obstacles and promises of the transformation. This helps educators have an experiential basis to communicate and transfer insights in their pedagogical methodology.

Consulting the European recommendations (translated in all languages of the EU) as well as the national recommendations is crucial for educators to verify which recommendations are already in place and which require special attention.
(https://education.ec.europa.eu/focus-topics/digital-education/action-plan)

Teachers and kindergartens as well as other caretakers should maintain a good communication with school administrators and parents as to carry on the pedagogical activities by tuning with wider social environment and the activities lived by children in other moments of their lives (schools' playground, home activities with parents and siblings).
Parents should whenever possible, do activities with children as to guide their use of digital technologies, as a way to provide examples for dealing safely with the digital environment. Importantly reinforcing whenever possible that the digital world makes sense only because there a link to life experiences with issues and people which we care about. Thus, the caring element of reflective thinking will be decisive for education for the digital transformation.

Schools should maintain an ongoing dialogue with parents and caregivers about use of digital technologies in the schools and their pedagogical methodologies that sustain the link to learning and collaborative activities. For example, it is important to collaborate with other schools and the digital world enables collaborating with schools from other countries. However, this requires following protocols and being guided by general policies of the institutions (such as ethical commissions, presence meetings, distributed collaborative work, etc.).

A final note on the variation on schools, abilities to have the necessary digital technology available for educators and children.

Nevertheless, it is also the case that not all schools nor all people around the globe can deal with the digital transformation in the same way because people and schools have access to different technology and have different manners to maintain updated about technological developments. The variation in access to technological development remains one important difficulty to overcome in the educational digital transformation and must be underlined when educators adopt EU recommendations as to maintain to end in view of a just global world.

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VI. Partners' Previous Experiences: do they match the Recommendations?

The online questionnaire as well as the institutions focus groups undergone (see excel and words in links for attachment) testify that all partners institutions have previous experience in collaborative educational practices, digital education and sustainability individually. And though there have been several EU projects and there is the suggested TPACK framework http://www.tpack.org/, no project intersected Digital education and Sustainability with cooperative learning methods as EACH suggests, making EACH outputs' crucially relevant for Early Childhood Digital Education, and explaining why all partners experience these fields without a conjoint effort to unite three areas of educational focus.

In sum, it is possible to already identify three important specific tasks for EACH in light of the R-EACH report common ground evaluation:

Specific Tasks for EACH:

1. Interconnect thinking and doing and pedagogical activities.

2. Reinforce how to analyze images by showing how they are made.

3. Install an ongoing collaborative process for activities that ensures critical, creative and caring aspects of thinking by highlighting self-corrective moments.

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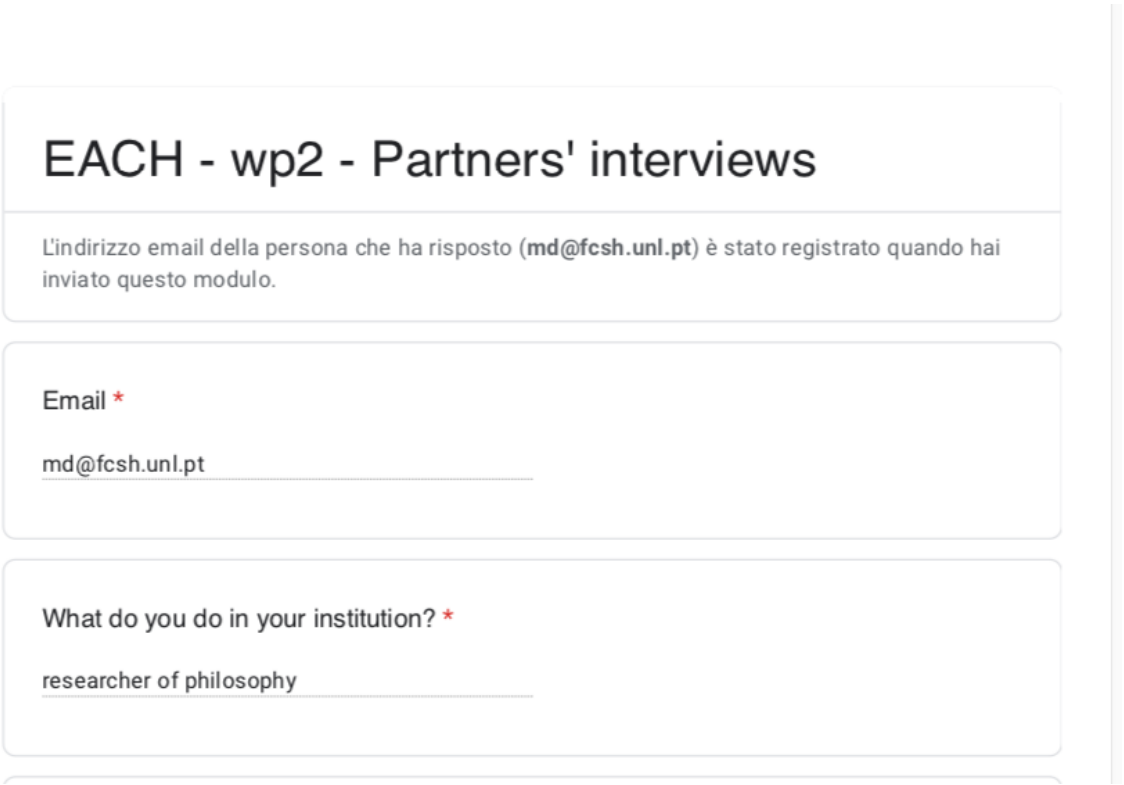
Attachments

1. Focus group and Written Questionnaire Output

Partners' Interview:



EACH - wp2 - Partners' interviews

L'indirizzo email della persona che ha risposto (**md@fcsh.unl.pt**) è stato registrato quando hai inviato questo modulo.

Email *

md@fcsh.unl.pt

What do you do in your institution? *

researcher of philosophy

For complete version see:https://docs.google.com/forms/d/19DnTR0AuxamUmrmAvcrhOX1YX-RUFp_sbI4Xho_1wzQ/edit

Output of interview in Excel Sheet:
https://docs.google.com/spreadsheets/d/1vj1vJH9Sjp-k1M0ZiNZRaOO3JGQ0ypjQT0-RnuoLHVo/edit?gid=2110710086#gid=2110710086

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2. FILO' Focus Group Summary

Date: 29/4/2024
Place: Bologna, Filò
Participants: Filò Organization (Chiara Minardi, Ilda Mauri, Carola Truffelli, Alessia Marchetti, Beatrice Gobbi)
Conductor: Luca Zanetti

Here is a reasoned summary of the conversation:

1. What is your involvement in the field of dialogical educational approaches?
The association is involved in the promotion of philosophical dialogue in educational, professional and civic contexts.

The members of the organization have received training in the pedagogy of philosophical dialogue. We have been studying and practicing a great variety of methods and approaches: Brenifier, 'Philosophical Consultation'; Philosophy for Children and for Community; Nelson's Socratic Dialogue; problem-based method (Peter Worley, Philosophy Foundation).

The core of our activity includes:

- doing dialogic laboratories in school (from childhood to university);
- organizing moments of dialogue on philosophical issues for citizenship;
- doing research on philosophical practices and dialogic pedagogies at university level.

2. Why do you think it is important to promote such approaches to deal with digital education?
Ways in which it is important:

- it creates an occasion for dialogue between children and adults and this is important, for both children and adults have to learn from one another;
- it is important to create a collective dialogue on the impact of digital transformation in our life; in other words, it is important to create a shared culture on this crucial topic;
- moreover and relatedly, most people think and experience the digital as something that we experience as individuals (to illustrate: cell phones, video games, social platforms, etc., are "places' ' where one can isolate oneself from others). In contrast, dialogue is a place for exchange and the encounter with the other. So, dialogue balances the individualist behavior often associated with digital consumption. (Digital stands to individualism as dialogue stands to collectivism)
- it creates an opportunity for critical thinking about the digital (questioning the transition without passively undergoing it); it is easier for adults to reflect because there is a distance due to the fact that they grew up without the digital.

A participant in the focus group said that she found (during a workshop in school on anger) that many children reported as a paradigmatic of increased anger the moment of losing at a video game. This is an experience, she said, that she can't quite understand. This is why she

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thinks that a dialogue between adults and children on this issue is important in order to understand each other and negotiate meanings and values.

3. Which type of training do you think is important to intelligently carry out the digital transformation?

- First of all: basic technical expertise on how certain platforms work.
- Awareness: how do we use technologies?; how do we create a critical approach to technological transformation?; how do we not uncritically undergo it?

How do we imagine training:

- It allows us to know the data on risks and benefits related to digital consumption; it gives us knowledge of the scientific literature on the subject (psychological/pedagogical).
- It allows us to settle controversies about the impact of technology on young minds.
- It provides us with competences related to the facilitation of dialogue in general and on this topic in particular. Why? One of the risks is that adults have an approach fed by their own negative and contrary prejudices against digital transformation. We should reflect on how to deal with this risk.
- It allows us to experiment with platforms (e.g. videogames). We need to know them first-hand.
- One part where experiencing these platforms has an emotional impact. Example: when you ask the child in class to put their mobile phone away, they seem to feel distress. But I (teacher) cannot understand, cannot empathize. I would like to understand.
- Have meetings with experts (psychologists, etc.) to analyze remarkable cases together.
- It would be interesting to talk not only with infants, but also with adolescents and pre-adolescents.

4. What is sustainability for you?

Sustainability has three aspects: environmental, economic and social. In fact, for me (Alessia) it is crucial to keep these three aspects together, while also focusing on the question: how to create a just society. The focus is not primarily on environment, but firstly and foremost on justice. The central aspect (for Alessia) is to create social justice, which then also becomes the pivot for environmental sustainability.

(For Ilda) sustainability cannot be colonising. (e.g., in Ghana there is waste for hybrid cars).

Educational implication:

- Sustainability must go together with a reflection on the role of the human being in the world. Therefore, it is important to keep the economic, social and also the environmental aspect together. (e.g., reasoning with children about the value of money). (Alessia)
- (Carola) When I think of sustainability I mostly think of the environment. I think it is important to reflect on the clash between individual and collective needs. Dialogue is an ideal formative context because there is individuality but it experiences the

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constraint of otherness. One experiences the conflict between individual and collective needs.

5. What types of projects have your institution participated within the framework of digital transformation-dialogical approaches-sustainability?

- Bucine Project. Sustainability project with a mixed group of adults and secondary school children. It was a library reading group.
- Project with Golinelli Foundation. Project on the ethics of artificial intelligence, reflection on ethical science and society. A more technical part and a dialogue part on the implications of this type of technology.
- Many of our dialogue projects work on the topic of digital transformation from the perspective of ethics. Example: hypothetical scenarios on the use of certain technologies (e.g. neuro link). Would you implant neurolinks in your brain? Ethical questions are then developed from these questions. E.g. train dilemma; car dilemma; corporate and insurance debates.
- Difficulties when it comes to issues of environmental sustainability: it is difficult to question certain assumptions (e.g., the belief that one should respect the environment, that one should take care of it, etc.); so the risk is that it becomes a fairground of the already heard; it is difficult to create debate and discussion.

FILO' Focus Group Summary Audio & Video:
https://drive.google.com/drive/u/0/folders/17aEtOwv3usdw0H7dq62C6T8633I--OWQ

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3. University of Gdańsk Focus Group Summary

Transcribed, edited and prepared by:
Jarosław Jendza, UG_PL

This document presents the summary of a group interview, a focus group that met to reflect together on the questions proposed by the representatives of the 'EACH' project. The people taking part in this interview are six members of staff from the Institute of Pedagogy at the University of Gdansk and 2 graduate students who support the 'EACH' team. From the University of Gdansk website.

1. What is your involvement in the field of dialogical educational approaches?

As a consequence of asking the first question, it became clear that the focus group participants are involved in dialogical educational approaches in several ways. Academic teachers mentioned that they practise the dialogical approach in their work with student-teacher candidates, but also offer this type of solution to schools cooperating with the Institute of Pedagogy. In the course of the discussion, it also emerged that all those taking part in the discussion, at different stages of their careers, actively practised dialogical education in their work with children, which means respecting children's individual needs, listening to their voices, taking individual interests into account and being ready to change professional conduct.

2. Why do you think it is important to promote such approaches to deal with digital education?

As a consequence of asking the second question, it became apparent that a key element in promoting this type of approach in digital education is to act as a person invited into the digital world by the children, rather than as a guide to the digital world. In other words, in order to promote digital education in the spirit of dialogue, it is necessary to assume that children - already at the pre-school stage - have some knowledge of this area, and this should be taken as a starting point.

3. Which type of training do you think is important to intelligently carry out the digital transformation?

In order to carry out digital transformation effectively, the focus interview participants focused around the need to recognize the characteristics of the generation with whom one wishes to work. This recognition of the characteristics of a generation refers to their life world, psychological characteristics and interests, values and cultural norms.

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Having recognized the children's lifeworld, one should plan activities that are in line with the previous analysis. The final element is the construction of methodical scenarios.

4. What is sustainability for you?

Sustainability, in the view of those taking part in the focus group, is a constant tension between the desire to make the world a better, fairer and more prosperous place and caring for the environment.

5. What types of projects have your institution participated within the framework of digital transformation-dialogical approaches-sustainability?

The University of Gdańsk has participated in numerous projects relating directly or indirectly to digital education, and dialogical education linked to sustainable development is a kind of DNA of the Institute of Pedagogy. These projects have varied in nature, from the promotion of social entrepreneurship, through didactic and educational projects, implementation activities related to new technologies, to strictly research projects.

Gdańsk, 05.06.2024

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4. Montessori Foundation Focus Group Summary

Conducted by Paweł Turowski – coordinator of the project

Participants:
Dorota Turowska – Co-president of the Fundation
Katarzyna Szymańska - Co-president of the Fundation
Alicja Dubaj – Teacher from Be Montessori preschool Jagiellonka
Agata Jednacz – Forest educator from Be Montessori Wilczek
Aleksandra Knapkiewicz – Director from Be Montessori preschool Beskidzka
Natalia Choromańska - Teacher from Be Montessori preschool Beskidzka
Monika Blandzi – Teacher from Be Montessori preschool Beskidzka
Aleksandra Wronowska – Teacher from Be Motessori prechool Suchanino

Introduction:
We are meeting on the google meet platform to hold a meeting on the EACH + project (EACH - Early Childhood and Sustainable Citizenship Routes in the Digital Era) the title of the project I would translate as: Early Childhood and Sustainable Citizenship Routes in the Digital Transformation Era.

In today's world, contact with modern technologies by children is inevitable. Therefore, it is worthwhile for these technologies to develop complex thinking and social skills and not just for watching cartoons, for example. New technologies also make it possible to introduce children to the idea of sustainable development, which is also important for the project.

The aim of the project is to develop cross-cutting key competencies (critical thinking, social and metacognitive skills) and digital competencies in kindergarten activities through the implementation, (with the support of digital technologies), of participatory learning activities contributing to the collaborative construction of knowledge. The integrating framework for all planned educational activities will be awareness of the challenges of climate change. This choice is based on the urgent need for a strong commitment to environmental sustainability. That is, in short, the goal is: to build awareness of the idea of sustainable development and develop social and cognitive skills through the use of modern technology and participatory forms of work, in preschool children.

The meeting is being held to learn about teachers' perspectives on the use of modern technologies in education and awareness of sustainability.

1. What is your involvement in the field of dialogical educational approaches?

Dorota Turowska: Every place from our institution except “WIlczek” are working in Montessori conception which is based on more like being correspondent to children then academic lecturer. In this conception it relevant to treat children with equality or like Jesper Juul mentioned with equal dignity. The point is that the needs of children and adults are treated equal. Opinions of children are as important as the opinion of adult in some topics. In “Wilczek” the decision process are also very important and crucial in some cases but Agata will say

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more about that. My involvement in the field of dialogical educational approaches is being a initiator of those in our institution, the same like Kasia. Weare also doing this from Toddler's to primary school studnet's. Important to as is that children are growing up in the atmosphere of independence and decisiveness with support of wise and experienced adults.

Agata Jednacz: Like Dorota said in "WIlczek" opinion of a child is relevant. Our normal day starts from meeiting where we make democratic decision where we gonna go for the expedition this time.

Katarzyna Szymańska: I think that the difference between Wilczek and our Montessori places is that we have some Montessori rules that we have to stick to. But I and Dorota often say that we are not closed only to the Montessori conception. There are so many possibilities in modern education that we have to derive from there. We cannot be closed only for Montessori. We start from Montessori and this is our base. So, it is not a one-sided message to the child but a child is invited every time. It does not matter if it is a Montessori place or a Forest preschool. We always ask ourselves if we can invite a child somewhere and if yes we just do it. No matter if it is a Forest or Montessori place.

Aleksnadra Knapkiewicz: Dialogue is on every step in our preschool. We start a day by meeting in the circle with children called "Circle" and there children take an active part in that and can give their opinions about different topics. We accompany to children on every step with discovering yourself. The rules that we have in our group are made with children also by the start of a year and are constantly updated according to children's needs.

Aleksnadra Woronowska: The dialogue is also in children's conversations. When some children are new in the group, they ask other children many questions, and the old ones help them. A new child is feeling important and heard and this is also important. Also, when some change is take place in preschool children are previously informed. It satisfies their needs the need for agency.

Monika Blandzi: When we are talking about children with parents, we are trying to invite them to talk to not let them feel that they are next to us. And the dialogue between a child and an adult. Children often take everything for adults like an axiom but for example when we are guesting physicist in our kindergarten and he sometimes makes some jokes that are not true. Then we do some dialogue where children can ask questions, and think is it really true?

Natalia Choromańska: I have to monition the table of peace. This is a place where children resolve conflicts by they our. Only with the support of adult sometimes.

2. Why do you think it is important to promote such approaches to deal with digital education?

1. Communicating with equal dignity breeds trust.
2. Communication with the child builds healthy self-esteem.
3. Fuels intrinsic motivation in the child, as the teacher makes it clear that what the child does and says is important and valuable.

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4. Influences the building of agency in children and a sense of influence.
5. Develops empathy.
6. Allows better recognition and naming of emotions and feelings of themselves and others.
7. Allows one to see the perspective of different people or different social groups.
8. Develops an attitude of tolerance and acceptance of diversity.
9. Promotes self-reliance.
10. Involves children in making decisions and bearing the consequences of their actions (at the child's level of responsibility).
11. Personal and social responsibility of the child is built.
12. Dialogue promotes a lack of passivity when talking through communicators.
13. Dialogue is critical in an era of information overload it is important to teach children to think critically and develop their ability to select information.
14. It helps teach the child to ask questions and have doubts.

3. Which type of training do you think is important to intelligently carry out the digital transformation?

Falling answers:

- Use of AI in the eductaion and not only.
- Training in soft skills development, social skills, team management.
- Training on knowing the risks in working with new technologies.
- Training on what children need in terms of new technologies and where to draw the line.
- Use of modern technologies in educations. Also, cameras, new programs, microscopes.
- How to accompany children in the use of new technologies to not get left behind.
- How to develop digital competence in adults. What adults should know about the digital lives of children and young people.
- Social media training. An adult needs to know what dangers await a child online.
- How to prepare a child in kindergarten to acquire digital competencies.
- What training children need to find their way in digital reality and know how to use it safely.
- Dangers in the use of AI.
- Classes on critical thinking that will prepare to select information.
- Classes on how to navigate the so-called "information dump", how to be close to one's values and not give in to opinions expressed online.
- Rules of good manners on the web. How to comment, why to comment? How not to give in to critical opinions.
- Heyt - what it is and how to prevent it.
- Digital hygiene of children and young people.

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4. What is sustainability for you?

Falling answers:

- Sustainability is operating in the local market.
- It's development while considering the welfare of others
- It's thinking about the impact of one's activities
- sustainability goals and implementing projects to achieve them
- It's education on how to reduce consumerism
- It's using new technologies in a hygienic way that doesn't harm the individual or communities
- It's knowing how to use what has already been produced so as to give objects a second life
- It's the association with weight on one side of the benefits on the other side of the side effects. Sustainability can be a symbol of caring for both sides so that both sides develop and grow.
- Using technological innovations but in a way that does not harm the environment
- Cause-and-effect thinking whenever we introduce new elements into the natural environment.
- Environmental education
- Volunteer activities and support for NGOs
- Involvement in the local community
- Development while seeing the needs and caring for individuals and communities
- Economic and social development while caring for the environment

5. What types of projects have your institution participated within the framework of digital transformation-dialogical approaches-sustainability?

- "BEE THE FUTURE annual school and kindergarten project about what role bees play, how to take care of the environment so that bees have the opportunity to work and live. What the lack of bees can mean for our environment. Establishment of flower meadows, preparation of leaflets and bee boxes - social action in Gdansk Old Town, in which children dressed as bees distributed prepared leaflets and bee booms (mixed flower grains with dirt).
- ECOLOGICAL FAMILY - a year-long school and kindergarten project on promoting everyday pro-environmental behavior.
- NETWORKERS - about safe e-behavior and hygienic behavior in working with a smartphone computer, and consequently with social media.
- GREAT MONTESSORI LESSONS: On the scientific formation of the world, Man and his appearance on Earth - are panoramic stories that on the timeline show successive events taking place in the history of our planet. In our facilities, the scientific version applies. Great lessons show all the connections between man and the natural world.
- SWEET Habits - workshops on healthy eating.
- Spring fair of exchanging items, toys and clothes.
- Swap Shop - exchange of clothes-teachers bring clothes they no longer wear and excha
- Social fridge – Making sandwiches and meals to, eat-sharing fridges in Gdańsk. Also packing and delivering food from every dinner in kindergartens to these places.

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- The second life of boxes and waste paper at the day care center
- Protection of frogs - an action co-financed by the Wokewood Environmental Protection Fund. Moving frogs from places dangerous to them to a body of water.

The next meeting should take place according to the plan of the main coordinator of the project.
Report prepared by Pawel Turowski.

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5. IFILNOVA Focus Group Summary

Online Meeting: Susana Cadilha and Dina Mendonça
IFILNOVA, NOVA FCSH, UNL – Lisbon, Portugal
Date: May 10, 2024
Focus group conducted in partnership
Summary made by Dina Mendonça with support from Zoom summary AI Tool.

The Focus group highlighted the crucial importance of dialogue for education, especially in what concerns digital education, and then Susana and Dina had a more general discussion concerning the use of technologies and its impact of socialization and the important need for education and proper training of professionals for the digital transformation. Pointing out the challenges of sustainability and how efficiency played an important role for economy and for society more generally. The focus group concluded that developing pedagogical material and guidelines for a future oriented take on digital transformation is a must.

Susana and Dina identified some of the ways in which they have been involved in educational practices, and the way in which Dina's practical application of Philosophy for Children enabled them to write the paper on the importance of meta-cognition in discussions regarding ethical issues. Even though Susana expressed feeling she didn't have as much experience as Dina in schools and other experiences of the practical application, it was agreed that dialogue and thinking dialogue is crucial to overcome risks of the wide spread use of technological devices by the population in general. Not only dialogue fosters raising awareness of the risk associated with technological development and increase use of technological gadgets, as it helps to better identify the diversity of students needs and the variation in students' abilities, which is needed if the digital transformation is to be inclusive and beneficial for all the population.

Even though both Susana and Dina agreed that digital technologies can be very beneficial in the educational context, they also make an increase demand of furnishing students, teachers and educators in general on how approach these with a critical attitude. Dialogue and collaborative thinking habits seems very appropriate to provide the social interaction that can install an ongoing critical attitude in face of technologies. Also, the digital transformation in education requires that all involved become aware of the way in which a healthy balance must be in place between digital, in person interactions and auto-didactic moments. Susana expressed the importance of making clear the rational for restrictions on digital use as to make everyone a participant and not merely subjecting others to institutional will.

Susana and Dina also pointed out the role of the Universities, in collaborating with other educational levels and contexts, and the importance of work institutions to protect their workers and students of excessive work limiting social gatherings, and leisure activities. This also made them think that the transformation of education offered by the digital transformation was ideal to address once again difficult questions and challenges of education and philosophy of education and move beyond the need for introducing basic technical skills in educators and students, and integrate the digital transformation beyond the common good

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sense parameters and make these values more concrete to be applied in educational contexts.

Also, they recognized that part of the difficulty with these issues is that complex issues about the value of technology, uncertainty of the world, as well as the opaque interaction between language and thought are at stake making it more difficult to find practical orientations easy and ready to use. Also, even when people have the appropriate theoretical knowledge, they still need to have an understanding of how to transfer it to situations in which practical application needs to be contextually and situationally adapted. And that, just like the conversation here in the focus group advances by incorporating insights from Dina and Susana, so the digital transformation needs to incorporate insights from teachers, students, and administrators as much as possible given the difficulty of the task.

Then Susana and Dina moved to consider the issues of sustainability and identified the environmental, social and economic dimensions of fostering sustainability. They both thought it was clear that socio-economic inequalities make it even more difficulty to implement sustainable practices and for individuals to internalize personal obligations. The social pressure to integrate and make usual behavior sustainable practices not only depends on personal choice as it requires the adoption of a more holistic general approach by those in decision making policies.

The discussion showed that the notion of efficiency in economic activity has a huge impact on different levels of sustainability and variations in personal finances, savings, and environmental concern modify practical concrete attitudes of sustainability. This means that it is extremely difficulty to demand a generalized behavior within a country, and even more difficult to generalized worldwide approaches. The best theoretical approach is to consider very specific measures and actions and avoid abstract considerations and Susana and Dina hoped that pedagogical recommendations of the project can contribute to this effort.

In addition, the denial and disregard for scientific facts of parts of the uneducated population present a specific type of challenge because it highlights that scientific education must help people to continue to assimilated scientific outputs after mandatory schooling, and that the scientists foster good dissemination of research outputs. Reference, for instance, to the US withdrawal from the Paris Agreement shows that this issue sometimes also affects politicians, which again reinforces the need for dialogical practices beyond school settings. Even if Universities, such as NOVA engages in projects on sustainability and on digital transformation, is Universities remain closed from other social spaces their research focus risks remaining within the university scope.

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Nevertheless, Susana and Dina agreed that digital transformation is an opportunity to being about positive changes, and this is already visible in their own lives. So the demand to adapt life and work to digital technology can be seen as a way to accept change and cultivate directing it to positive outcomes for all. Thus, the developing of pedagogical material as it appears in the project can greatly help to cultivate looking for adaptability and fostering positive changes.

IFLNOVA Focus Group Audio & Video:
https://drive.google.com/file/d/1reM5ciLvIiyNrMWW0J154cWWI39S0kym/view?usp=sharing

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6. Externato João XXIII Focus Group Summary

Date: 29 of May 2024

Location: Classroom at Externato João XXIII

Person that conducted the focus group: Aléxis Trindade

Participants:

Joana Valente – Speech Therapist. She will be part of the project at Externato João XXIII; Rita Rodrigues – Preschool educator. She will be part of the project at Externato João XXIII. She is currently developing her work with a class of four years old; Cátia Conceição - Preschool educator. She is currently developing her work with a class of four years old; Carla Gomes – Preschool educator. She is currently developing her work with a class of three years old; Inês Nogueira – Preschool educator. She is currently developing her work with a class of three years old; Susana Rodrigues – Preschool educator. She is currently developing her work with a class of five years old; Sofia Batista – Preschool coordinator and educator. She is currently developing her work with a class of five years old; Aléxis Trindade – Philosophy for Children facilitator and teacher of Citizenship and Development – Philosophical Practice. It's planned that he will follow the project at Externato João XXIII.

1. What is your involvement in the field of dialogical educational approaches?

Joana: In my area of intervention, verbal communication is essential. It is necessary to help the child understand the concept you are discussing, whether it is an academic or behavioral issue, to ensure their comprehension and determine the next steps to take.

If we need to place them in a situation to make them see another perspective, we must understand the malleability of the child's thinking to show different perspectives of situations.

Rita: As Joana says, I think the important thing is that whether it is an academic issue or another topic such as exploring the world, society, home, or the playground, we must move away from traditional teaching, where the teacher deposits information and the student is passive.

I always try to approach them based on their ideas—the students speak first, and then, through dialogue, we try to transmit the information without the children just being repositories of it.

It is necessary for them to speak and maintain a dialogue, not only between the teacher and student but also among themselves. Dialogue is essential in the transmission of knowledge, not just listening.

Inês: Yes, the guidelines we have for preschool education emphasize this approach. It is not just about transmitting knowledge; it is about fostering dialogue.

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There must be interaction between the educator and the group, even more so than between the educator and individual students.

Although we teach content, we make the most of what comes from home and what the child brings with them. I believe we are all working towards this goal.

Cátia: Exactly. This approach is essential to promote reflection on the part of the students.

Carla: That's right. These moments of dialogue encourage students to think, discuss, and consider other points of view. The exchange of ideas is important.

(The group discusses the difficulties they experience in promoting these moments of dialogue and the possible reasons for them.)

Rita: Yes, this allows them to see and hear another perspective, and it doesn't mean that one is right or wrong; it simply enables them to think differently.

Aléxis: I can say that my field of expertise is education through dialogue. There is no direct or vertical transmission of knowledge; I am not a traditional teacher, and I explain this difference to the children (between a teacher and a facilitator). I always want to listen to their ideas, work with their ideas, and encourage dialogue among them with their ideas.

2. Why do you think it is important to promote such approaches to deal with digital education?

Joana: Firstly, it is necessary to explain to them (children) that there are real risks they are unaware of. They don't understand the disadvantages. Dialogue is essential to explain both the advantages and disadvantages, highlighting what is beneficial and what is not.

Rita: They don't understand the disadvantages. Dialogue is essential on this issue, it is necessary to explain the advantages and disadvantages, what is beneficial and what is not.

(The group discussed whether there are appropriate ages for contact with digital devices.)

Susana: It is important to talk to them because most of the actions they see from adults involve excessive use of digital devices. We need to provide them with other examples and experiences.

Aléxis: Dialogue is essential because it is a fundamental tool for acquiring skills that are not gained through digital education, such as interacting with others, listening, and mutual respect. Education through dialogue should complement what they already have or will have (through digital education), helping them become more critical and sociable.

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3. Which type of training do you think is important to intelligently carry out the digital transformation?

Susana: I think we need to learn to use and understand the tools ourselves.

Joana: We need to understand the risks, advantages, and disadvantages, and determine which platforms are beneficial for certain ages and purposes. This knowledge will help us become good examples for them.

(The group discussed whether students should have contact with digital devices.)

Inês: It is necessary to reflect critically on this digital transformation. We need to consider whether it is worthwhile, and whether the associated risks are acceptable. For this, we need appropriate training.

4. What is sustainability for you?

Joana: Sustainability follows all existing developments.

Susana: Its impacts.

Joana: Yes.

Susana: And is it positive or negative?

Joana: It's negative and positive. But this does not mean that we cannot continue to evolve in order to overcome the negative impacts of this development.

Rita: Sustainability is the balance we have to have in our actions.

Joana: Yes. It's a tool that we need to know how to use to balance our impact on the planet. We must understand what we have and need, and consider how to use this tool to positively influence our planet.

Rita: It is a consciousness that thinks not only of itself, but of others and the planet.

Joana: Yes. It is necessary to look, think and understand how I can, in my daily life, make my life more sustainable and pass these ideas on to future generations.

Aléxis: I share the definition that says sustainability is the ability to satisfy our needs without compromising the needs of future generations.

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5. What types of projects have your institution participated within the framework of digital transformation-dialogical approaches-sustainability?

Sofia: Firstly, we educate our students on this topic, sustainability, through dialogue.

Susana: We do specific actions, like the end of the year party. We reuse and repurpose various materials.

Rita: We talked to them about excess consumption. We created several projects with the reuse of materials, such as Father's and Mother's Day gifts.

Susana: We repurpose clothes from our students' uniforms.

Rita: In terms of digital transformation, we use virtual school, it is not a project, but an educational complement.

Aléxis: In our school matrix, dialogical practices are part of our Educational Project. Then there are subjects that address the themes of digital transformation and sustainability within its curriculum and teach this kind of content, like the Citizenship and Development – Philosophical Practice class.

Rita: There are actions that should be transversal and across all school cycles so that we can call them projects.

Sofia: There is also the vegetable garden.

Susana: Yes, but to be considered a project, perhaps it should be transversal to the entire school community.

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https://drive.google.com/drive/u/0/folders/17aEtOwv3usdw0H7dq62C6T8633I--OWQ

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7. CADIAI Focus Group Summary

Date: 30th April, 2024
Institution: Cadiai - Bologna, via Bovi Campeggi 2/4e
Location: online (Zoom Meeting)
Person who conducted the focus group: Nicoletta Chieregato
Participants: Alice Casadio, pedagogical coordinator of early childhood services (1 nursery school, 1 pre-school, 1 play centre). She earned a Master's degree in family mediation and she is an anti-violence worker at Spazio Donna – Centre for Women's Empowerment. She is an expert in parenting support and group psychodynamics.

Loredana Cava, pedagogical coordinator of early childhood services (5 nursery schools and – till last year – 2 preschools, too). She has a specialization in Clinical Pedagogy with a bio-psycho-social approach. Her areas of interest are parenting support (0-6 age range and as accompaniment to birth). Please note: due to personal reasons, Loredana was unable to participate in the focus group on Tuesday, April 30th (she does not appear in the recording) and therefore responded in writing to the 5 proposed questions. Her reflections have been summarized together with those of the other two colleagues.

Federica Gazzoli, pedagogical coordinator of early childhood services (1 nursery school and 2 preschools) and biosystemic counselor. Expert in parenting support for childhood and adolescence. She earned a Master's degree in sociology of health and non-conventional medicine.

Main emerging issues and points of dialogue

1. What is your involvement in the field of dialogical educational approaches?
In recent years, three preschools managed by Cadiai have been involved in training programs related to:

- Education in Critical and Complex Thinking and Digital Technologies in Early Childhood (two-year training)
- *Philosophy For Children* in preschool (one-year training)

Cadiai strongly believes in dialogic educational approaches in early childhood (3-6year range) as **part of a transversal skills curriculum, particularly (but not only) addressed to citizenship education**.

However, Alice points out that "*in the working groups that I have coordinated in recent years, **critical thinking ability has dramatically decreased** [...]. Educators/Teachers are increasingly unable to dissent and to argue their own point of view. The ability to disagree is poor, so either one joins the others' thinking, or one avoids contradictory because he/she doesn't see it as a resource, while as a destructive form of conflict*".

Today, teachers' tendency is to define an a priori goal – qualifying/quantifying it in terms of knowledge/skills to be acquired (e.g. *when talking about the use of water resources, the goal*

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is to understand how important turning off the tap while washing one's hands or teeth is) – and to evaluate the process based on goals' achievement/not achievement. This means there is no real co-construction of knowledge: **there are rather answers the teacher believes to be correct, toward which she/he steers children, through questions** which are closed to new perspectives and solutions, while **converging toward the goal** and not admitting any non-preset answer. Therefore, **anything "outside" or "ancillary" to the set objective** (e.g. while talking about water resources, reflections on the meaning of life and death arise: "*What happens if there is a fire and there is no water? They all die! And where do they go after they die? Into the sky? No, underground* **..."**) **is left on the side and scattered**, not understood nor revamped and brought into the dialogue, because of the need to go back to the "a priori defined topic".

Therefore, there are **3 different problems in implementing dialogic educational approaches**:

1. The one related to the **teachers' posture**. Teachers are still very much guided by the rigid and dogmatic model of *absolute rationality* ("one best way", i.e. the best alternative among the possible ones) and accustomed to evaluate if defined objectives have been reached or not.
2. The **difficulty in welcoming and accepting what is unexpected** (unplanned, "inconsistent" with the defined objectives, "off-topic") **without being overwhelmed and without losing the sense of the discussion**. Integrating the unexpected into the discussion requires effort, commitment and a lot of competence (as well as habit) to "**constantly recalculate the route**". Teachers have problems in pausing in the question and display the urgency to get to the answer. Therefore, they often prefer to "drop out" anything that deviates from the defined path and is not controllable to some extent.
3. Although not across all working groups and schools, the **fear of "loss of authority"** is also there. What is the teacher if not the one who knows the right answers? If one accepts that he/she does not know THE answer from the very beginning (and, first of all, recognizes that there is not only one right one, but there are different possibilities and interpretations) and considers the possibility that new questions might arise from the dialogue without getting to assertive conclusions, does one not risk losing credibility and authority? Could he/she turn out to be incompetent? What happens to professionalism? These are some fears that teachers seem to carry.

What could help:

- **Stepping out the perimeter of "absolute rationality" through "acting playfully"** (using open-ended game formulas, such as the box with de-structured objects of various kinds, with which children have to invent a game. E.g.: "*I take the string and start jumping rope, or I weave a net, then we talk about how the different games can be joined and integrated, negotiating ways and rules*"). If one clings to the thinking and cognitive dimension, it is difficult to get out of the "there is a right answer – which the teacher knows – and a wrong one, from which one has to get away" belief. On the other hand, if children and teachers are involved in "doing together" knowing that there is no "given and final" knowledge to get to, a new attitude might appear and be trained.

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- **Strengthen teachers' training, to increasingly deconstruct the paradigm of transmissive teaching** assessed according to a performative logic.

But until this is a reality, it is unlikely that a teacher who struggles with critical, complex, and open thinking is able to support educational processes fostering open, critical, and complex thinking skills.

2. Why do you think it is important to promote such approaches to deal with digital education?

3. Which type of training do you think is important to intelligently carry out the digital transformation?

1. **Training programs should help to overcome prejudices** (which seem to limit digital education to the use of devices and PCs only) **and the resulting mistrusts**. That takes into account the differences that characterize the contexts and recipients of training (whether adults/teachers or children).
2. Digital education should be addressed first of all to adults with educational responsibilities: **digital illiteracy among adults** is still particularly high and it creates the perception that approaching and learning about the digital world requires a lot of **effort** and a special **commitment**. Sometimes, while talking to educators, it seems that talking about digital education is close to climbing Mount Everest: so many things to know, new things to get used to, the need to constantly keep up to date with evolutions (e.g., new Apps, new features) and consequently demand for time ... **When the perceived fatigue is excessive, there is a risk that the training has no real impact in the everyday life of educational contexts, especially in the medium-long term**. This is why digital education for adults should be awareness education, designed with **multi-year training programmes** that provide – after an initial "basic training" – **consultancy/advising over time** by educational staff experts, such that **digital can be made an element of everyday educational action** (and not an "extra" to worry about). **Technicians in early childhood services/schools** (pedagogical coordinators, pedagogical referents, etc.) should also be **trained and engaged** on the topic.
3. **Digital education in schools should be accompanied by a wise and focused involvement of families**. Even in families, there are adults with a relatively high digital illiteracy, and this leads them to polarize on extreme positions when speaking of digital in schools: either absolutely opposed (so-called "apocalyptic"), because they are scared that DTs will "anesthetize" their children's thinking skills, or a-critically promoting (so-called "integrated"), because they are sure that the use of digital is positive in any form and under any conditions (without constraints or further thought), as it can increase their children's chances of achievement and success.

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Thus, there should be training programs that promote a paradigm shift and support a view of DT as an integral and complementary element to others in communication, as "a building block" of communication (and not as a stand-alone, self-standing element).
This is why dialogic and participatory approaches can be particularly effective in stimulating critical and complex thinking, making a difference from a passive approach that lacks meaning, research, and motivation.

4. What is sustainability for you?

To the focus group participants, **environmental sustainability means first and foremost being able to think about the place and role of human beings in the world in a way that is strongly interconnected *to* and respectful *of* every element of the environment**.

Educating environmental sustainability should therefore mean educating ourselves to step **out from oneself, to think and reflect on how interconnected we are to all the other elements on Earth, how we are part of a whole, which needs to be respected**.

The development of an ecological culture is based on the principle of an "extended responsibility" which could be translated into caring for the network of relationships of which one is a part, both human and biological. For this to happen, a new cultural horizon, a new ethics and a new paradigm are required: in order to move away from an instrumental view of Nature, a change at the level of thinking is first necessary; **otherwise, we will continue to treat the symptoms instead of the disease. The "errors of action"** (e.g., the waste of food resources, water resources, over-exploitation of natural resources, global warming, etc.) **find explanation in the "errors of thinking"** (in particular, in thinking of human beings as superior to everything and entitled to use/exploit for their own benefit everything they have at their disposal, like a "great puppet master") **and the latter should mainly "be educated".**

Unfortunately, in schools today, **the topic of environmental sustainability is still mainly in the background (it is not perceived as a priority) and addressed in ways and practices that are sometimes superficial and trivializing**. For example, through:

- **actions** against food and water waste or supporting paper recycling. However, the reasons for these choices are still too often simplified with explanations such as *"Don't waste your food: in other parts of the world there are children dying of hunger"*, *"If we all waste water, we will run out of it and end up with no more to drink"*, *"Let's re-use drawing paper, so the trees won't die"*. These are motivations distant from the daily experience of the children who attend our schools, **not very tangible, not very meaningful, and not very understandable, especially if they are simply "slogans"** (e.g. a project "far from the daily experience of children" carried out with an external agency on the topic of sustainable fishing in the Italian seas; the project aimed to let children know what types of fish it is correct to catch at each time of the year). What can we say instead about the possibilities – unfortunately often untaken – that arise from children's questions such as "*Teacher, why do we humans waste food and animals do not?*". A valuable input which is wasted if the teacher's answer is limited to "*Because animals have no taste, they eat everything*". Or, why not, for example, using the tablet to watch a video on what happens to environmentally dispersed plastic when a child asks why to sort plastic or how it is possible to reduce the environmental impact

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of clothing production through the practice of reuse, instead of just very simplified and trivial answers?

- the "condemnation" (which often becomes an **a-critical and unproblematized stigmatization**) of specific behaviours. What about, for example, phrases (by teachers) such as "*I love animals and do not allow/accept you [children] to kill them, not even the poor insects*". Why not – instead of hastily blaming children – thinking together of the meaning of the existence of other living beings and their relationship to the world (human and otherwise)?

Therefore, there is a **need for an educational approach** that stimulates critical thinking and **shifts reflection from** "*in order to respect the environment one must do* ..." **to** "*why* should I care about respecting the environment?".

In addition, it would be important to think about **systematic and reliable tools to assess impact of educational design in this area** (and not - or not only - evaluation by objectives of the specific project, which is likely to remain isolated).

5. What types of projects have your institution participated within the framework of digital transformation-dialogical approaches-sustainability?

- Two-year research & training program managed by the University of Bologna on complex thinking and digital technologies, with experimentation in schools (in the second year, Filò was present in preschool "*Abba"* with a P4C project on the theme of identity and growth, also using Stop Motion. In preschool "*1-6"*, on the other hand, the activities design was focused on the topic "the universe of emotions").
- Research-training with University of Bologna on P4C in preschool in yr. 23-24.
- Projects in collaboration with local private entities on the theme of sustainability (recycling, use of water resources, sustainable fishing, etc.). E.g. https://ragazzi.gruppohera.it/scuola-dell-infanzia.

CADIAI Focus Group Audio Summary:
https://drive.google.com/file/d/1IdnnkXZ8wxTYa6zmPhxPkao1bdNVja87/view?usp=sharing

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8. UNIBO Focus Group Summary

Date: May 13th 2024
Institution: UNIBO - Bologna
Location: Department of Education, Unibo.
Person who conducted the focus group: Silvia Demozzi
Participants: Pietro Corazza, Marta Ilardo, Eleonora Bovini, Chiara Borelli.

1. What is your involvement in the field of dialogical educational approaches?

Marta. Yes, in university teaching. I use theatre of the oppressed. In university teaching I use dialogue within the framework of transformative pedagogy. In general, I favour peer work in groups, trying, where possible, to remove myself from the learning process.
Pietro. Trained in Philosophy for Children at the University of Padua. I have a background in theatre of the oppressed. I have used these approaches mainly with adolescents. The background framework is Freire's Pedagogy of the Oppressed.
Chiara. I have worked in kindergarten and currently work in experiential education. In both contexts the role of dialogue and more generally of learner-centred processes are central.
Eleonora. I have no teaching experience, nor training in Philosophy for Children. Perhaps the experience I had closest to the themes of the question was the experience of improvisation in the context of dance. Stimuli are provided and responded to through the body in a dialogue with the other dancers and the stimulus.
(It would be nice to thematise the relationship between dialogue and body in pre-school).

2. Why do you think it is important to promote such approaches to deal with digital education?

Yes! (Chiara). Because the risk with digital ed is that educators play a passive role in the transmission process. Instead, dialogue allows them to critically receive content. All the more so with the youngest, for whom the risk of passive reception of content is even higher.
Marta. Through dialogue, one can also learn to understand the nature of the digital and digital tools. For example, one can study the nature and manipulation of code. Dialogue also allows one to understand that there is a difference between me and the digital sphere.
In addition to dialogue,' says Eleonora, and the others agree, 'it is very important to reflect on the role of the body in the relationship with the digital. Marta brings up a few examples in this regard, including the use in kindergarten of software to decipher the size of trees. In that experience, the teachers insisted on integration with the body (e.g., seeing sizes with one's senses).
In addition to the dialogue dimension, it is important, Peter emphasises, to attend to the critical dimension. This includes, on a spectrum, the ability to ask questions about the origins of content on the Internet, the origins of technologies, the nature and manipulation of coding, etc. To this end, Chiara emphasises, it is important to understand that the technological object (software and hardware) has been built and therefore there is a mind behind it, which has intentions, values and beliefs.

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3. Which type of training do you think is important to intelligently carry out the digital transformation?

Often, says Chiara, I have encountered teachers who lacked basic literacy on certain technologies or digital content. This was an obstacle during the training I had to do on a video game. The basics were missing. Therefore, it is essential to provide basic literacy (nature of the medium, code, etc.). The context was a training on Minecraft. It was fundamental to experiment the game on oneself. Here it was fundamental and significant to also activate the body, to create the bridge between reality and virtuality.
Pietro mentions, with curiosity, the hacker pedagogy approach. It could be useful to experiment with adults.
Marta emphasises the importance of holding together the theme of digital transposition and the inclusion of the theme of citizenship. It is important to foster the creation of a positive and critical culture around digital.
Eleonora, on the other hand, reports her experience in which she used Tic Toc to teach Italian to foreigners. She then had the teachers try it out.
In addition to mistrust of technology, many adults fear technology. Getting first-hand experience, through fun and play, with technologies can help adults overcome their fears.
Another issue is whether and how to use technologies. It is also important for adults to create their own responsible and critical digital diet.

4. What is sustainability for you?

Marta: It is a form of intelligence; it is a way of responding to problems by holding complexity together, a systemic approach.
Chiara: There are two aspects. On the one hand, there is the idea of 'putting a patch' on a tsunami that is overwhelming us. On the other, sustainability in the sense of finding a sustainable (intelligent) way to be sustainable. That is: environmental sustainability is fundamental, it is fundamental to curb the problem, but this must not jeopardise other crucial aspects of our lives, including social resilience, for example.
Pietro: the issue is no longer the question of solving climate change, because it cannot be solved. The issue is how society will change and how to think about and educate ourselves on that change. The issue is: how do we learn to live with the coming situation? So the political and collective dimension is crucial. But the first step is an awareness that our worldview is about to collapse; this has a central existential and philosophical impact, for which the individual must be responsible. The stage of grieving is crucial. In this regard, he mentions the project 'The Work that Reconnects' (https://workthatreconnects.org/). He mentions it as an example of a training course that can help teacher training.
For me, the word 'sustainability' refers first and foremost to a practice. Thinking in a systemic perspective, the reaction cannot be individual; it is necessary to colour the individual in a structure which in turn is in dialogue with an institutional dimension. Sustainability must become an everyday practice. If these values are taught from an early age, then it can become viable. One cannot be sustainable if one is racist, for example. So there is a very broad field of reflection of which the issue of sustainability can be the centre of gravity.

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5. What types of projects have your institution participated within the framework of digital transformation-dialogical approaches-sustainability?

Pietro did his doctoral thesis on these topics (in particular dialogical practices and digital transformation) and the future will focus on sustainability issues. In addition, there are many P4C projects. Pietro also mentions one of his projects in which he created podcasts on the topic of sustainability
Marta worked on a research project (for an Italian funding scheme called PON) which focused on the question of whether there are pedagogical foundations within school projects on sustainability topics. The first answer is that no, for the most part those who go into the classroom do not have pedagogical skills or a particular reflective look at the pedagogical foundations of their work. From this emerges the difficulty of holding together a plurality of topics that are nevertheless connected: thus not only sustainability, but also social, civil, political, economic issues, etc. It also emerges that teachers are afraid to address these issues with children because they fear it will trigger anxiety, distress and fear in them. From this emerged the need to reflect on 'climate anxiety' in education.
Chiara worked on several projects related to the topic of sustainability. In particular, she has worked on the role of experience and contact with nature in sustainability education. Experiencing immersion in natural environments can be a central aspect of sustainability education. Her doctoral research, on the other hand, focused on the topic of consistency/inconsistency in teacher behaviour in relation to sustainability issues (environmental and social).

UNIBO FOCUS GROUP SUMMARY Audio

https://drive.google.com/file/d/1_P9MlYgwR9cZ7SYTy_FkX5d7y2w88AOP/view?usp=drive_link

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