

**PARENTS' PERSPECTIVE ABOUT THE USE OF DIGITAL  
TECHNOLOGY BY CHILDREN IN A RURAL COMMUNITY  
– BIHOR COUNTY, ROMANIA –**

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**Abstract:** *The access and use of digital technology by rural pupils are two very little explored issues in Romania. Research on these issues is sporadic, targeted and there is no sustained research over time - longitudinal research - to track the factors that determine changes in the use of technology by pupils in these environments. In an article published in 2021 we made a brief synthesis of the Romanian literature regarding the use of Information and Communication Technology (ICT) by students (Cosma, 2021). The studies showed an increase in access to digital devices, but also its use for different purposes. The most accessed devices were phone and laptop or computer, followed by tablet. The main online activities were school activities (reports, presentations, projects, homework, etc.) and entertainment activities (music, videos, video games, etc.). In the meantime, in Bihor county, digital equipment has been purchased through the funding lines opened for town halls and schools for this purpose. We mention here Roșia , Budureasa , Remetea etc. In Lăzăreni the project "Improvement of digital content and systemic ICT infrastructure in the field of e-education in Lăzăreni, Bihor County" was implemented in the period 20216 - 20227. This project purchased tablets for students, laptops for teachers and other digital equipment totaling 1.170.673,63 lei. The use of this equipment, however, is dependent on the teachers' competence to effectively use this equipment, applications and platforms, but also on the parents' support, motivation and perception of the usefulness of digital technology in the use of it by children. Through this study, we aim to analyze these issues: to explore parents' perceptions of the benefits and risks to which pupils are exposed when using information and communication technology (ICT).*

**Key words:** *digital technology; rural; perspective.*

**Rural pupils' use of technology. Literature Syntheses***a) Use of information and communication technology by pupils, parents and teachers*

Equipping schools with digital equipment and using technology also stand out as strategies to attract students to school. Three schools in Bihor County have been equipped with interactive whiteboards through the National Program for the Reduction of School Dropout (PNRAS): Secondary School No. 1 in Avram Iancu; Secondary School "Lucreția Suci" in Oradea and Secondary School No. 1 in Batăr.

Moreover, although the teachers from Bihor County stood out in 2020 as "the most active" in the "Teacher Online" course, a weakness of the course strategy is that it was not followed up by any subsequent monitoring of the implementation of the knowledge gained.

Parents' perspectives on the usefulness of digital technology and their children's online activities, however, have been little studied - especially those in rural areas. Too little emphasis has been placed on the importance of parents' perspectives on their children's use of technology, although studies in the literature point to the undeniable effects it can have. Some of the negative effects of technology use found in the literature include: *physical effects*: obesity, musculoskeletal and/or sleep problems (Dhanain, 2023; Nahar et al., 2018); *cognitive and social effects*: potential developmental problems and reduced interpersonal skills (Mashrah, 2017), *academic effects*: low academic performance (Juhaňák et al., 2018; Kim et al., 2017; Vincze, 2018). However, technology can also have positive effects, encouraging *creativity, critical thinking and bonding* among children when used appropriately (Dhanain, 2023).

*b) Rural parents' perception of children's use of ICT*

Although online activities can keep children engaged in learning, they can improve both their ICT skills (Gyeltshen, 2022) and school performance (Mensah, Quansah, Oteng and Nii Akai Nettey, 2023), some parents have expressed concern about the quality of education conducted through digital technology, especially in terms of monitoring children's academic progress. Online platforms, games and activities constitute a controlled environment for monitoring students' learning activities, with data clearly showing a significant correlation with school performance (Zaldivar, Pardo, Burgos and Kloos, 2012). Effective implementation of ICT requires taking into account different learning and assessment styles in the design of digital tools and adapting activities to different learning environments and communication modalities (Bulbarela, 2008). Therefore, despite its potential, the use of digital technology alone cannot fully capture the complexity of students' progress, requiring a more complex, comprehensive approach that

combines the use of technology with psycho-pedagogical expertise. The pandemic has increased the role of parents in monitoring their children and emphasized the need for them to train/develop their digital skills (Lestari, Yulianingsih, Widodo, and Widyaswari, 2022; Ludji and Marpaung, 2021; Matthes, Thomas, Stevic, and Schmuck, 2021; Susetyo, 2021). Despite recognizing the need for online education during the pandemic, parents generally prefer traditional schooling (Joseph, Kuppaswamy and Shetty, 2021; Sumathi, 2021). They also support the importance of supporting students with lower academic performance and providing regular feedback especially in online learning environments (Cavalcanti, Mello, Miranda and Freitas, 2020). Although parents support the use of ICT for educational purposes, they are concerned about the potential risks and threats to children's cybersecurity (Vandoninck, d'Haenens and Šmahel, 2014). In rural areas, parents perceive the internet as having more negative than positive effects on their children's health, with many expressing concerns about excessive internet use by their children (Lo, Lai, Ng and Wang, 2020). Children are accessing electronic devices at increasingly younger ages (Holloway, Green and Brady, 2013), parental mediation is essential as unsupervised internet use can lead to risky behaviors (Ly et al., 2021; Vannucci, Simpson, Gagnon and Ohannessian, 2020; Wang and Lee, 2020). To cope with these challenges, parents use various control and limiting strategies such as rule setting, both positive (e.g., explaining, talking) and negative (e.g., disagreeing, criticizing) forms of mediation, or restrictions of face-to-face interactions with peers, friends, or strangers (Livingstone et al., 2017; Rodríguez-de-Dios, van Oosten and Igartua, 2018).

Studies, which are precarious, on how rural Romanian parents perceive the use of ICT by their children show that rural people were often hesitant to embrace modernization and faced various difficulties in adapting to mandatory ICT tools for education during the COVID-19 pandemic: lack of access to digital devices, interrupted internet connection and absence of peripheral digital devices (such as copiers, scanners, etc.), all of which lead to significant challenges in the educational context (Grigore-Filip, 2021; Néma, 2024). These technical shortcomings have inhibited students' ability to fully engage in digital activities, thus limiting their access to online resources, communication opportunities and productivity.

In conclusion, although the pandemic has led to the widespread equipping of schools with high-performance digital tools and facilitated the development of teachers' digital competences and the rapid adaptation of students to the online learning environment, parents' perceptions of these transformations have been insufficiently documented in the Romanian context. Therefore, the present study,

although limited in terms of sample size, represents an attempt to explore this under-researched dimension.

## **Methodology**

### ***Objectives:***

- Exploring the perceptions of parents of rural pupils on the use of digital technology in general (in learning or entertainment activities);
- Analysis of the constants and differences in parents' perceptions of the benefits of students' use of digital technology, by comparison with the literature;
- Developing a research culture of parents by administering/completing scientific questionnaires to the rural population.

### ***Sample presentation:***

The sample of subjects consisted of 14 parents of 3rd grade pupils and 25 parents of 6th grade pupils, from Secondary School No. 1, loc. Lăzăreni, com. Lăzăreni, jud. Bihor.

The subjects' responses were collected between February and April of the 2023-2024 school year by means of a questionnaire (Appendix 1.), their participation in the study was voluntary, with the possibility of answering *or not* to any question in the questionnaire.

### ***Analysis procedure:***

In spite of the small sample size, the study aimed to analyze the differences in parental responses according to the child's level of schooling. The responses were processed and analyzed using the specialized software NVivo 12, a tool that allows a systematic and rigorous approach to the interpretation of textual data. The open-ended nature of the questionnaire items determined the choice of this qualitative analysis tool, offering advanced functionalities for coding, categorizing and interpreting the unstructured responses of the study participants. Thus, the responses were structured along thematic dimensions and analyzed using the thematic analysis method and Grounded Theory.

### ***Dimensions explored through parental questioning:***

Participants' responses were analyzed and structured into seven thematic dimensions as follows:

*Dimension 1. Student use of technology;*

*Dimension 2. Advantages and disadvantages of students' use of technology;*

*Dimension 3. Types of activities children do online;*

*Dimension 4. Methods used by parents to distract students from excessive use of technology;*





'school stuff'; and it affects them in a positive sense, with easy access to information.

There is a certain lack of awareness of the effects of technology, a lack of correlation and consistency of answers from one question to another. On the other hand, we could deduce that, in the parents' opinion, the fact that their children watch videos and play for hours on end has "good effects". A few exceptions to this rule are 'aggression', 'rejection' and 'addiction', which would require further analysis.

**Dimension 4. Methods used by parents to distract students from excessive use of technology:**

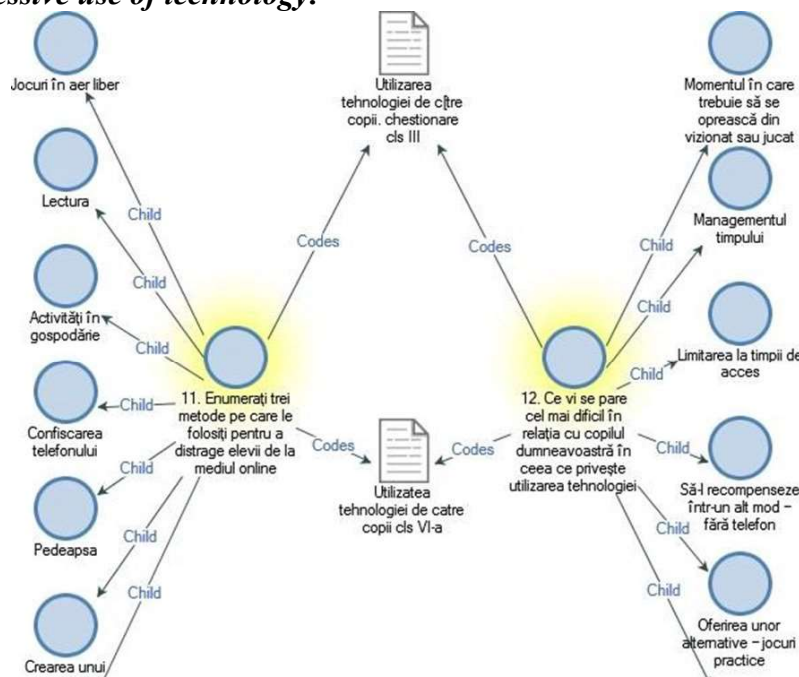


Fig. 1.1. Comparison of the categories of participants' answers regarding the methods used to distract children from the online environment and the challenges they face in managing children's online time

When asked about the methods they use to distract their children from online, parents' responses ranged from "playing outdoors", "reading", "household activities", "giving responsibility" and "creating a schedule" to "confiscating the phone" or "punishment".

We can observe that, unlike in urban areas, in rural areas there is a more diversified range of opportunities and "responsibilities" due to the characteristic constitution of the household: dwelling, yard and garden.

**Dimension 5. Difficulties encountered by parents in managing children's appropriate use of technology:**

Although the specifics of activities in rural areas may be more diversified than in urban areas, the opportunities do not seem to be "to children's liking" when it comes to choosing between them and digital technology. When asked about the most difficult aspects of managing children's time online, parents reported situations where they "have to stop watching or playing", time spent online, rewarding and offering alternatives to non-media games and activities.

***Dimension 6. Benefits of children's use of technology as seen by parents:***

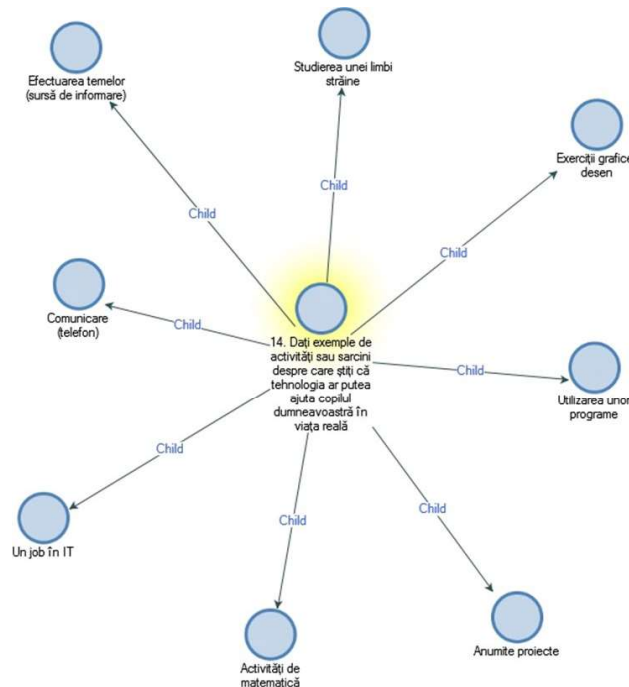


Fig. 1.2. Ranking of responses on the benefits of children's use of technology as seen by parents

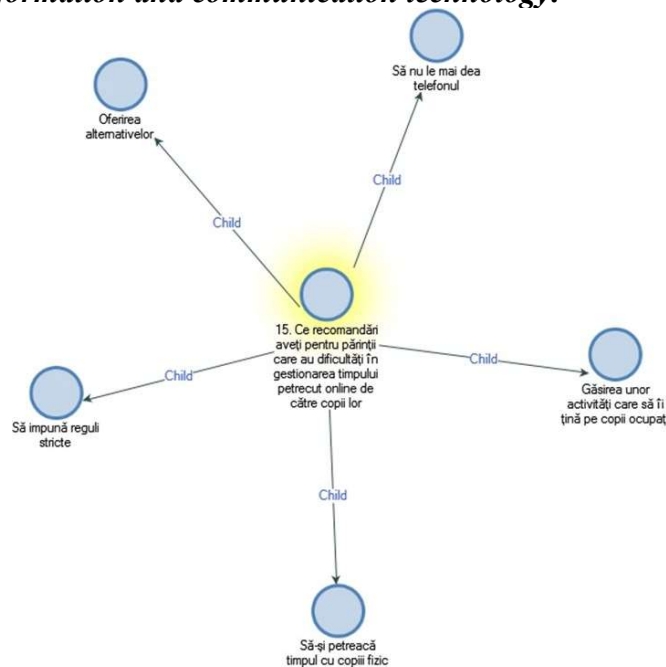
Although online activities are predominantly for entertainment (see sections above), parents recognize the (rather) potential benefits of using technology by referring to professional IT activities (e.g. 'a job in IT', 'using platforms' or simply for 'communication') or school activities (e.g. 'maths activities', 'some projects', 'doing homework', 'studying a foreign language' or 'graphing, drawing').

We draw attention to the apparent inconsistency between the responses regarding these benefits and the activities mentioned above. Moreover, parents have no information about the skills that entertainment activities and online games can train or develop in children. These include reaction speed, attention to detail, concentration, strategic thinking, creativity development, etc., all of which have the potential to be beneficial or risky for children, depending on how the technology is used and the awareness of internal psychological processes (memory, attention,



thinking, etc.)

***Dimension 7. Parents' recommendations on how to manage students' use of information and communication technology:***



***Fig. 1.3. Categorization of participants' responses on their recommendations for managing children's digital use***

Asked what recommendations they have for other parents who are faced with the challenge of managing their children's online time, participants mentioned both general activities such as spending time with children physically, offering alternatives and finding activities to keep them occupied, and more specific activities such as imposing strict rules or even banning the phone (stop giving them the phone).

### **Conclusions**

Although seemingly precarious, the responses of the parents participating in the study suggest a dispersion of perceptions of the benefits of children's use of technology, with its use for educational purposes missing from the home in most cases. These responses indicate a lack of knowledge or skills in the use of technology for educational purposes, with rural children prioritizing time spent outdoors and in household activities. A pertinent observation here is the need to study the extent to which parents spend time with their children in these activities that do not include the use of technology, in the context of studies confirming that rural parents are spending less and less time with their children, for reasons related to the nature of their place/type of work, and that the use of technology can become a refuge for children

(Iurea, 2022).

Limitations of the study involve the variable/inconsistent number of participant responses across questionnaire items, with participants having the option of not answering questions they do not wish to answer. There was also skepticism among rural parents as to how the data would be processed and the purpose of data collection, although they were informed

about the study, with the risk of undesirable answers being given. Lastly, possible methodological errors related to the lack of criteria on the gender of the parent (it was not controlled whether mother, father or grandparents answered the questionnaire), educational level, social status or other factors that could shape the participants' answers.

Although the concerns of rural parents differ from those of urban parents, and their digital skills also differ, one of the recommendations for future research is the level of digital skills of rural parents and the barriers they face in supporting their children to use digital technology correctly (for educational purposes).

The parents' answers are short, and it is considered irrelevant to reproduce them in the results section, while at the same time the possibility of contextualizing these answers is affected. In this respect we recommend individual or focus group interviews with urban versus rural parents.

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