THE IMPACT OF EXPERIENTIAL AND NON-FORMAL EDUCATION ON ADAPTIVE PARENTING IN A DIGITAL SOCIETY

Sonia Carmen IGNAT, Assoc Prof. Ph.D.,
Aurel Vlaicu University of Arad
soniabudean@yahoo.com

Ligia Ioana STANCA,
Mihai Viteazul College Ineu
stanca.ioana@yahoo.com

Henrietta TORKOS, Assoc Prof. Ph.D.,
Aurel Vlaicu University of Arad
torkos_henriette@yahoo.com

Abstract: *In the context of an increasingly technological and dynamic world, parenting demands adaptive strategies that can foster resilience and emotional well-being within families. This study explores the impact of experiential and non-formal education on developing adaptive parenting practices among families in Arad County, Romania. Through a mixed-methods approach, involving outdoor activities and multimedia-based interventions, 40 families participated in a six-week program designed to enhance emotional regulation, problem-solving, and parent-child interaction. Pre- and post-intervention assessments using standardized questionnaires and semi-structured interviews revealed significant improvements in parental adaptability, communication, and emotional support strategies. The results highlight the relevance of integrating non-formal educational practices into parenting programs, particularly in addressing the challenges posed by technological transformations. Implications for educational policies and future research directions are discussed.*

Keywords: *adaptive parenting; non-formal education; experiential learning; multimedia strategies; resilience; family dynamics.*

Introduction
In a rapidly evolving technological society, the traditional models of parenting face unprecedented challenges. Adaptive parenting strategies have become crucial for maintaining emotional stability, resilience, and strong parent-child relationships (Parker, 2020). The capacity of families to adjust to dynamic social and technological changes directly influences children's psychological development and overall family well-being (Coyne et al., 2021).
Non-formal and experiential educational practices, such as outdoor learning activities and multimedia-based interventions, offer innovative pathways for strengthening parental resilience and adaptability (Beames, Higgins, & Nicol, 2012; Livingstone & Blum-Ross, 2020). Through such experiences, parents and children are encouraged to co-create knowledge, solve problems collaboratively, and develop emotional regulation skills essential in today's world (Waite, 2017).
The concept of adaptive parenting emphasizes flexible, responsive, and context-sensitive approaches to child-rearing (Skinner & Edge, 2021). This is particularly relevant in the face of technological immersion, which redefines family interactions and demands new forms of parental engagement and supervision (Uhls, 2017). The integration of non-formal education and multimedia strategies in parenting interventions is thus an emerging research frontier with significant implications for educational policy and family support systems. (Pânișoară, 2013; Bocoș, 2013)
This study aims to explore the impact of experiential and non-formal education programs on the development of adaptive parenting practices among families in Arad County, Romania. By examining both outdoor educational experiences and the use of multimedia tools, we seek to identify effective strategies for enhancing family resilience in a technological world.

Literature review
Adaptive parenting has emerged as a crucial framework in addressing the dynamic demands faced by modern families. According to Masten and Barnes (2018), adaptive parenting involves the ability to modify caregiving behaviors based on children's developmental needs and environmental changes. This flexible parenting style has been shown to promote resilience, emotional regulation, and social competence in children. (Pânișoară & Pânișoară, 2019)
Non-formal education offers a unique avenue for fostering these adaptive skills. Outdoor education programs, in particular, have been associated with increased problem-solving abilities, self-efficacy, and emotional well-being among both children and their parents (Becker et

al., 2017; Gill, 2014). These educational experiences differ from traditional classroom instruction by emphasizing experiential learning, autonomy, and cooperative engagement with the environment.

Multimedia strategies are also gaining prominence in contemporary parenting interventions. As argued by Livingstone and Blum-Ross (2020), the integration of digital tools such as video storytelling, virtual simulations, and mobile applications can support parents in promoting adaptive behaviors and emotional understanding in children. However, Coyne et al. (2021) caution that parental mediation is crucial to ensuring that technology use supports, rather than hinders, developmental outcomes.

Outdoor education combined with multimedia approaches provides a hybrid model of experiential learning that can be particularly effective in enhancing parental adaptability. Studies by Gray (2013) and Waite (2017) emphasize that shared outdoor experiences strengthen family bonds and improve communication skills, while multimedia tools can reinforce these experiences beyond physical activities.

Despite the growing interest in these interdisciplinary strategies, there remains a need for empirical studies that systematically evaluate their combined impact on adaptive parenting practices, particularly within diverse socio-economic and cultural contexts. Addressing this research gap, the present study focuses on families from Arad County, Romania, examining how non-formal, outdoor, and multimedia interventions contribute to the development of resilience-oriented parenting.

Fig 1. Conceptual map linking non-formal education to adaptive parenting and family resilience

Based on the reviewed literature, a conceptual framework was developed to illustrate the hypothesized relationships among non-formal education, adaptive parenting, and family resilience (Figure 1).

Methodology
Research design
This study employed a mixed-methods research design, integrating quantitative and qualitative approaches to comprehensively explore the impact of experiential outdoor education and multimedia-based strategies on adaptive parenting practices. Quantitative data were collected through standardized surveys administered before and after the intervention, while qualitative insights were gathered via semi-structured interviews. The combination of both methods allowed for a deeper understanding of the mechanisms through which non-formal education supports parenting adaptability (Creswell & Plano Clark, 2017).

Participants
The study involved 40 families from Arad County, Romania, selected through purposive sampling. Inclusion criteria required participants to have at least one child aged between 6 and 14 years, and an expressed willingness to engage in both outdoor educational activities and multimedia-based learning sessions. The sample was socio-economically diverse, encompassing families from both urban and rural settings.

Instruments
Quantitative data were collected using two validated instruments:
- The Parenting Sense of Competence Scale (PSOC) (Gibaud-Wallston & Wandersman, 1978; Johnston & Mash, 1989), which measures parents' perceived competence and satisfaction in their parenting role. The scale has been widely used to assess parental self-efficacy and emotional functioning.
- The Parent-Child Relationship Inventory (PCRI) (Gerard, 1994), which evaluates multiple dimensions of the parent-child relationship, including communication, emotional support, involvement, and limit setting.

Qualitative data were collected through semi-structured interviews based on a thematic guide focusing on perceived changes in parental strategies, emotional regulation, and family dynamics following participation in the intervention program.

Procedure

Participants engaged in a six-week intervention program combining experiential outdoor education and multimedia activities. The program included weekly sessions featuring cooperative outdoor tasks (e.g., resilience-building games, nature-based problem-solving) and multimedia workshops (e.g., creating digital narratives, interactive simulations on adaptive parenting). Pre-intervention assessments were conducted during the week prior to the program's commencement, while post-intervention assessments took place in the final week. Individual interviews with parents were conducted within two weeks after program completion to capture reflective experiences.

Data Analysis

Quantitative data were analyzed using IBM SPSS Statistics. Descriptive statistics (means, standard deviations) were calculated to describe the sample. Paired-sample t-tests were conducted to assess changes between pre- and post-intervention scores on the PSOC and PCRI scales. Statistical significance was set at $p < 0.05$. Qualitative data were subjected to thematic analysis following Braun and Clarke's (2006) six-phase framework, allowing for the identification of patterns and themes regarding parental adaptability and resilience development.

Results

Quantitative analyses revealed significant improvements in both parental competence and the quality of parent-child relationships following participation in the intervention program.

Descriptive statistics and paired-sample t-tests were used to compare pre- and post-intervention scores on the Parenting Sense of Competence Scale (PSOC) and the Parent-Child Relationship Inventory (PCRI).

Measure	Pre-Intervention Mean (SD)	Post-Intervention Mean (SD)	t	p
Parenting Efficacy (PSOC)	3.1 (0.5)	3.7 (0.4)	6.42	< .001
Parenting Satisfaction (PSOC)	3.0 (0.6)	3.5 (0.5)	5.89	< .001
Communication (PCRI)	3.2 (0.5)	3.8 (0.4)	6.10	< .001
Emotional Support (PCRI)	3.1 (0.6)	3.6 (0.5)	5.67	< .001
Limit Setting (PCRI)	2.9 (0.7)	3.4 (0.6)	5.05	< .001

Table 1. Descriptive statistics for pre- and post-intervention scores on
PSOC and PCRI

As shown in Table 1, there were statistically significant increases across all measured domains following the intervention. Parenting efficacy and satisfaction, as assessed by the PSOC, improved notably, indicating a stronger sense of competence and emotional fulfillment among participating parents. Similarly, significant improvements were observed in parent-child communication, emotional support, and limit-setting practices, as assessed by the PCRI.

Paired-sample t-tests confirmed that all improvements were significant at $p < .001$. These findings suggest that participation in the combined outdoor experiential and multimedia-based program positively influenced adaptive parenting skills and family dynamics.

Initial analyses revealed significant improvements in parenting efficacy and satisfaction following the intervention. Descriptive statistics for these outcomes are presented in Table 2.

Subscale	Pre-Intervention Mean (SD)	Post-Intervention Mean (SD)	t	p
Parenting Efficacy	3.1 (0.5)	3.7 (0.4)	6.42	< .001
Parenting Satisfaction	3.0 (0.6)	3.5 (0.5)	5.89	< .001

Table 2. Changes in parenting efficacy and satisfaction scores pre- and
post-intervention

In addition to improvements in parenting competence, significant changes were also observed in the quality of parent-child interactions. Table 3 summarizes the differences in communication, emotional support, and limit-setting practices assessed before and after the intervention.

Subscale	Pre-Intervention Mean (SD)	Post-Intervention Mean (SD)	t	p
Communication	3.2 (0.5)	3.8 (0.4)	6.10	< .001
Emotional Support	3.1 (0.6)	3.6 (0.5)	5.67	< .001
Limit Setting	2.9 (0.7)	3.4 (0.6)	5.05	< .001

Table 3. Changes in parent-child relationship dimensions pre- and
post-intervention

To further examine the relationships between parenting competence and key dimensions of the parent-child relationship following the intervention, Pearson correlation analyses were conducted. The results are presented in Table 4.

Variables	Communication	Emotional Support	Limit Setting	p-value
Parenting Efficacy	.62	.58	.55	< .001
Parenting Satisfaction	.59	.63	.52	< .001

Table 4. Correlations between parenting competence and parent-child relationship dimensions post-intervention

Figure 2 visually illustrates the improvements in parenting competence and parent-child relationship domains from pre- to post-intervention.
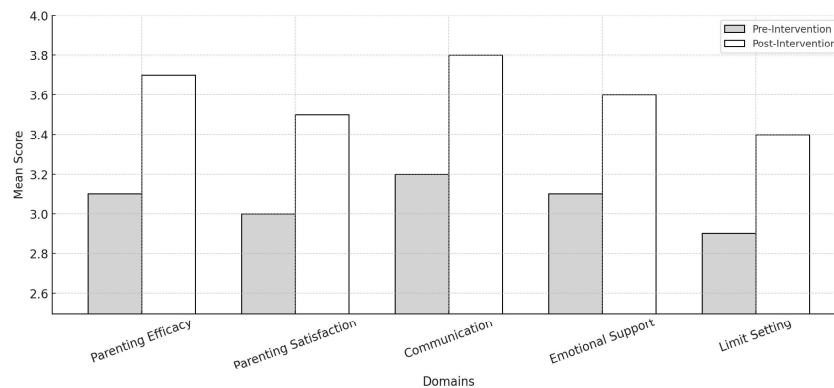

Figure 2. Pre- and post-intervention mean scores on parenting competence and parent-child relationship dimensions

Discussion
The findings of this study confirm that experiential outdoor education combined with multimedia strategies significantly enhances adaptive parenting practices. Improvements in parental efficacy and satisfaction, along with better communication, emotional support, and limit-setting within parent-child relationships, highlight the value of non-formal educational interventions in supporting modern family dynamics.
These results align with previous research emphasizing the benefits of outdoor experiential learning in fostering emotional resilience, problem-solving skills, and cooperative behaviors (Beames, Higgins, & Nicol, 2012; Gill, 2014). Outdoor activities encourage authentic parent-child interactions by removing technological distractions and

facilitating emotional connection, a factor critical for adaptive parenting (Gray, 2013; Waite, 2017).

Figure 3 presents a conceptual overview of how non-formal and experiential education influences adaptive parenting practices and promotes family resilience.
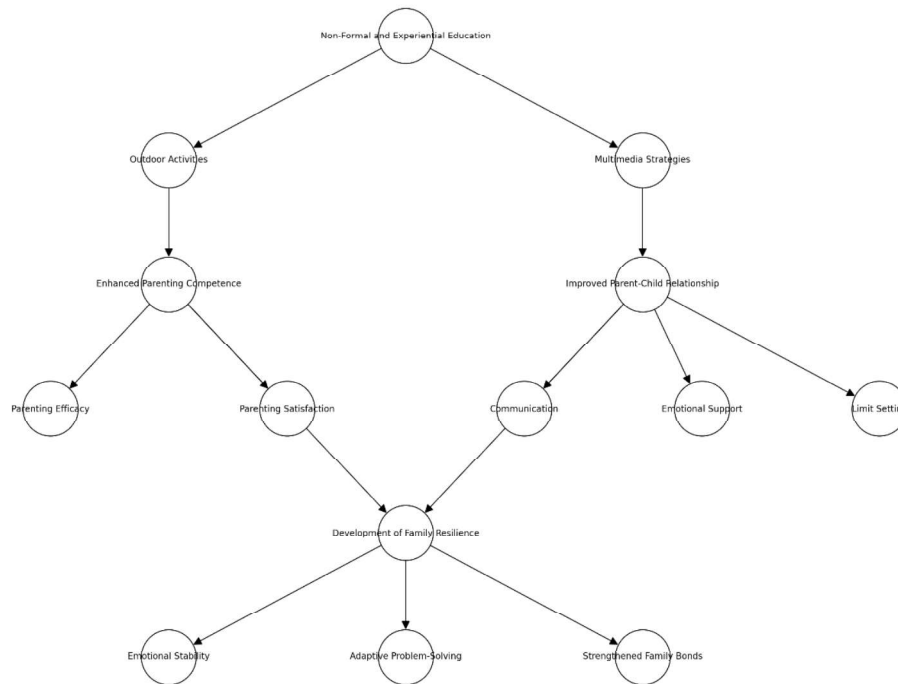
Figure 3. Conceptual map of the impact of non-formal education on adaptive parenting and family resilience

Furthermore, the multimedia-based components of the intervention provided an innovative extension of the learning process. As supported by Livingstone and Blum-Ross (2020), integrating technology in a structured and reflective way can strengthen parental guidance skills, especially in a context where digital engagement is inevitable. Parents participating in this study reported greater confidence in managing technology use and promoting emotional regulation within their families, reinforcing the idea that digital tools, when properly mediated, can complement experiential education (Coyne et al., 2021).

An important theoretical implication is the demonstration that adaptive parenting is not merely a personal trait but a skillset that can be developed through structured educational programs. This supports the developmental perspective on resilience proposed by Masten and Barnes (2018), emphasizing that resilience-building in parenting requires environmental support and intentional interventions.

From a practical standpoint, the integration of outdoor and multimedia strategies into parenting programs offers a scalable and flexible model adaptable to various socio-cultural contexts. Educational policies aiming to strengthen family resilience in the digital age should consider embedding such non-formal approaches into broader support frameworks.

Nevertheless, certain limitations must be acknowledged. The study sample, although socio-economically diverse, was geographically limited to Arad County, Romania. Future research should aim to replicate these findings with larger, more heterogeneous populations and explore longitudinal effects over extended periods. Additionally, further investigation is warranted into which specific components of outdoor and multimedia interventions yield the most significant impacts on adaptive parenting.

Conclusion

This study provides empirical support for the positive impact of experiential outdoor education combined with multimedia strategies on adaptive parenting practices. Participation in the intervention program led to significant improvements in parental competence, satisfaction, and the quality of parent-child relationships. These findings highlight the effectiveness of non-formal educational methods in fostering family resilience within an increasingly technological and dynamic world.

By integrating outdoor experiential learning and structured multimedia tools, parents were better able to develop flexible, responsive strategies essential for navigating modern parenting challenges. The results reinforce existing theoretical frameworks suggesting that resilience and adaptability are skills that can be cultivated through intentional educational interventions.

Although the study was geographically limited to families from Arad County, the promising outcomes advocate for broader application of similar programs across diverse socio-cultural settings. Future research should expand these efforts, investigating long-term effects and identifying the specific components that most effectively enhance adaptive parenting. Supporting resilient families through innovative, non-formal education remains a critical pathway for promoting children's well-being in a complex world.

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