



## Smart Parenting in the Digital Era: A Literature-based Framework for Enhancing Emotional Development in Early Childhood

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### Abstract

This study aims to use a conceptual framework of smart parenting to support emotional development in early childhood within the context of the digital era. Using a qualitative literature review, 20 studies published between 2010 and 2023 were analyzed to identify key themes. The findings reveal that Smart Parenting combines emotional responsiveness, digital literacy, and cultural sensitivity. Emotionally attuned parenting, enhanced by appropriate digital tools, fosters children's emotional intelligence, empathy, and regulation skills. However, unsupervised or excessive screen use can hinder emotional bonding. Cultural context also shapes how Smart Parenting is practiced, highlighting the need for adaptable strategies that respect local values and resources. This framework offers a holistic approach to parenting that bridges traditional interaction with modern technology. The study contributes to parenting science by integrating digital tools, emotional neuroscience, and cultural dimensions into a unified model. It offers insights from parents, educators, and policymakers to promote healthy emotional growth in early childhood.

**Keywords:** *smart parenting; emotional development; digital tools; early childhood; parenting practices*

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## A. INTRODUCTION

Early childhood is a critical developmental period that lays the foundation for an individual's cognitive, social, and emotional well-being. Among these developmental aspects, emotional competence is pivotal in determining a child's ability to interact effectively, manage stress, and establish meaningful relationships later in life (Denham et al., 2012). The parenting landscape has undergone significant transformation in recent years due to technological advancements and shifting societal expectations. This change has introduced the concept of Smart Parenting, a hybrid model that blends traditional caregiving practices with digital tools and strategies to better support children's holistic development, particularly emotional growth (Baharun & Finori, 2019; Suargani et al., 2023).

The emergence of smart parenting aligns with the growing demands of the digital age, where access to information and technological interfaces increasingly influence how parents engage with their children. While this trend offers unprecedented opportunities to enhance emotional literacy and communication within families, it also poses unique challenges. Studies have shown that excessive reliance on digital tools can reduce direct parent-child interaction, potentially hindering emotional bonding and the development of emotional intelligence in young children (Veraksa et al., 2021; Wenling et al., 2023).

Emotional development in early childhood entails the child's ability to identify, understand, regulate, and express a range of emotions. This process is highly influenced by caregivers' parenting style and emotional responsiveness (Edwards, 2012; Mafaza & Mayang Sarry, 2022). Responsive, warm, and consistent parenting positively influences the child's emotional competence. In this regard, Smart Parenting offers an integrative approach by combining neuroscientific insights, digital resources, and socio-cultural sensitivity to equip parents with tools for nurturing emotional growth in a more informed and adaptive manner (Bornstein, 2024; Crouse et al., 2023).

However, existing literature on Smart Parenting remains fragmented. Some studies emphasize digital parenting techniques and emotional coaching using apps and online platforms (Nichols & Selim, 2022), while others focus on traditional emotional modeling and attachment-based practices (Sabey et al., 2024). Furthermore, research tends to overlook the cultural dimensions of parenting, especially in non-Western contexts where child-rearing practices are deeply embedded in local norms and family dynamics (Hossain & Eisberg, 2020).

This fragmentation presents three critical gaps in the literature. First, there is a lack of a comprehensive framework that bridges the dichotomy between digital parenting and traditional interaction-based models, particularly in early childhood education settings in developing countries (Ingrassia & Massimo, 2020; Salsabila et al., 2024). Second, few studies have effectively integrated emotional neuroscience, cultural adaptation, and technology into a unified Smart Parenting model (Dix, 1991). Third, although emotional dysregulation linked to early media exposure has been well-documented (Crouse et al., 2023), its connection to structured Smart Parenting interventions remains underexplored.

Addressing these gaps requires rethinking how Smart Parenting is conceptualized and operationalized in real-world contexts. A more integrative understanding of Smart Parenting would empower parents, educators, and policymakers to cultivate emotional competence in children by leveraging both cultural values and contemporary tools. Such a framework would acknowledge children's emotional needs, parents' emotional literacy, and the digital realities that increasingly shape family dynamics. This study seeks to articulate a comprehensive framework of Smart Parenting that is emotionally informed and culturally grounded. Drawing from interdisciplinary insights and recent advances in parenting science, the study aims to contribute a more cohesive understanding of how Smart Parenting can support the emotional development of preschool-aged children in today's digitally mediated world. This integrative perspective is crucial for promoting healthy emotional growth and ensuring children have the emotional intelligence necessary to thrive in complex social environments.

## **B. METHOD**

This study adopts a qualitative literature review approach by systematically analyzing various academic sources to develop a comprehensive smart parenting framework for early childhood emotional development. The review identifies thematic trends, theoretical models, and empirical findings that connect parenting strategies, especially those incorporating digital tools, with children's emotional outcomes.

### **1. Article Selection and Scope**

Researchers initially identified 100 scholarly documents through a comprehensive search across multiple academic databases, including Scopus, ScienceDirect, ERIC, Google Scholar, and the National Library of Indonesia. The search included peer-reviewed journal articles, academic books, and conference proceedings published between 2010 and 2023. Classical references prior to 2010, such as Bowlby (1980) and Goleman (1995), were retained due to their foundational significance in the field of emotional development and attachment theory.

The search for articles referred to the inclusion criteria. To ensure the relevance and quality of the reviewed literature, the following inclusion criteria were applied: articles explicitly addressing Smart Parenting, emotional development in early childhood, or the impact of parenting styles in the digital age; empirical and theoretical works published in peer-reviewed journals; publications available in English or Bahasa Indonesia; and studies involving children in the early childhood stage (ages 3–6).

Conversely, exclusion criteria included articles without clear methodology or lacking relevance to the study focus, opinion pieces, blogs, or unverified sources, publications before 2010 except seminal works, and studies focused solely on adolescent populations or parenting practices unrelated to emotional development. The inclusion and exclusion criteria are in Table 1.

Tabel 1. Inclusion and Exclusion Criteria

No.	Inclusion	Exclusion
1.	Articles explicitly address smart parenting, early childhood emotional development, and the impact of parenting styles in the digital age.	Articles without clear methodology or lacking relevance to the study focus.
2.	Empirical and theoretical works published in peer-reviewed journals.	Opinion pieces, blogs, or unverified sources.
3.	Publications are available in English or Bahasa Indonesia.	Publications prior to 2010 (except seminal works).
4.	Studies involving children in the early childhood stage (ages 3–6)	Studies focused solely on adolescent populations or parenting practices unrelated to emotional development.

2. Search Procedure and Selection Process

The literature search was conducted using specific keywords such as “*smart parenting*,” “*emotional development in early childhood*,” “*digital parenting*,” and “*parenting styles and emotional intelligence*.” Boolean operators (AND, OR) were applied to refine results and shown in figure 1.

The selection process proceeded in three stages:

- a. Initial screening of titles and abstracts reduced the initial pool of 100 documents to 50 articles.
- b. A full-text review was evaluated thematic relevance and methodological rigor, resulting in 30 eligible articles.
- c. Quality appraisal involves assessing the credibility of the sources, the impact factor of journals, clarity of research design, and the academic reputation of authors. Based on this final appraisal, 20 high-quality articles were selected for in-depth analysis and synthesis.

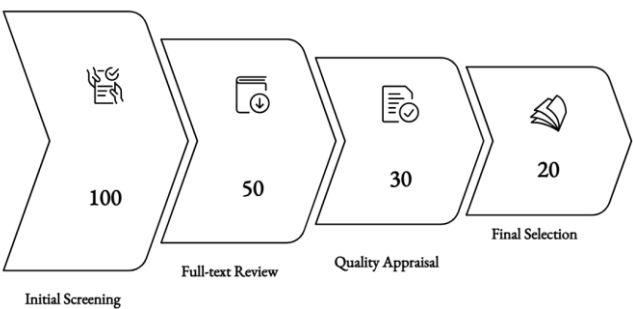


Figure 1. The selection process SLR

3. Data Analysis

A thematic content analysis was applied to the selected literature. Each article was examined to extract core themes related to Smart Parenting, including its components (e.g., digital monitoring, emotional coaching), parenting responsiveness, cultural

dimensions, and links to emotional competence outcomes in children. Thematic coding was used to group findings into coherent categories, allowing for cross-comparison between studies.

Additionally, the analysis paid attention to:

- a. Patterns of convergence and divergence in parenting models.
- b. Cultural variability in Smart Parenting practices.
- c. Research gaps, including the lack of longitudinal studies and integrative models combining neuroscience, digital tools, and socio-cultural factors.

This analysis developed a conceptual framework to illustrate the interplay between Smart Parenting strategies and emotional development outcomes during early childhood. This framework serves as the study's theoretical contribution and provides a foundation for future empirical validation.

## **C. RESULT AND DISCUSSION**

This study offers a comprehensive synthesis of literature on smart parenting and its influence on emotional development in early childhood. Through systematic review and content analysis, five interconnected thematic domains emerged: (1) core characteristics of Smart Parenting; (2) emotional responsiveness in early childhood; (3) the dual impact of digital tools on parent-child emotional interaction; (4) cultural and contextual influences on parenting practices; and (5) identified research gaps and future directions. Each theme is discussed in depth below.

### **1. Core Characteristics of Smart Parenting**

The literature consistently describes Smart Parenting as a multidimensional and adaptive approach that integrates emotional intelligence, responsive caregiving, and digital awareness. Rather than being defined merely by technology, Smart Parenting emphasizes the intentional and strategic use of digital tools to strengthen emotional bonds and developmental support. This model extends beyond traditional parenting by fostering emotionally attuned relationships in an age where screens are ubiquitous and information is readily accessible (Suargani et al., 2023; N. E. Veraksa & Belolutsкая, 2021).

Central to this concept is the idea that parents must be emotionally present and technologically competent. Emotionally intelligent parents can better understand their children's feelings and respond in ways that support emotional growth. It includes validating a child's emotions, helping them label feelings, and guiding them through appropriate coping strategies (Goleman, 1995). When integrated with digital tools, such as educational applications, animated stories, or media prompts, these practices create enriched emotional learning environments that can adapt to the child's developmental level.

Thus, Smart parenting is not a rigid formula but a flexible framework that allows parents to tailor their strategies based on individual child temperament, situational demands, and cultural context. This approach's strength lies in its emphasis on conscious

parenting decisions, where digital tools are used not to substitute but to complement direct emotional engagement.

## **2. Emotional Responsiveness in Early Childhood**

Emotional responsiveness remains a foundational aspect of early childhood development and is repeatedly highlighted in the literature as a predictor of emotional intelligence and social competence. It refers to the caregiver's ability to recognize, understand, and respond appropriately to the child's emotional cues. Responsive parenting builds secure attachment, encourages self-regulation, and models healthy emotional expression (Dozier & Bernard, 2023; Slavković, 2020).

During the early years, typically between ages 3 and 6, children experience rapid growth in emotional awareness but often lack the tools to manage their emotions independently. At this stage, emotionally responsive parenting plays a pivotal role in external emotional regulation, where children learn to understand their internal states through co-regulation with caregivers. For example, when a parent empathically comforts a frustrated child and helps name that frustration, the child begins to internalize both the language and strategies for dealing with such feelings.

Smart parenting reinforces this responsiveness by using interactive media as emotional scaffolding. Story-driven applications or animated videos portraying emotional situations can serve as mirrors through which children recognize their experiences. When parents engage in co-viewing and actively discuss characters' emotions, they create meaningful opportunities for emotional learning.

Importantly, research indicates that emotional responsiveness is not about perfection but consistency. Children benefit most from predictable, warm, and validating responses that help them develop trust and confidence in managing their emotions (Giráldez et al., 2025; Jeon & Park, 2024). Smart Parenting strengthens this consistency by offering parents ongoing learning resources, reminders, and emotionally intelligent content that reinforce these interactions even amid busy routines.

## **3. The Dual Impact of Digital Tools on Parent-Child Emotional Interaction**

The rapid growth of digital media has fundamentally altered family dynamics and parenting practices. In early childhood, where emotional development depends on rich, face-to-face social interaction, digital tools can function as either enhancers or inhibitors of emotional growth, depending on how they are used. This duality is a recurring theme in the literature.

On the positive side, digital tools provide novel opportunities for co-engagement. Interactive apps, story-based animations, and emotion-labeling games have been shown to promote emotional understanding, especially when parents use them together with children (Indrajaya et al., 2024; Rout & Bhoi, 2024). These tools can reinforce emotional vocabulary, present relatable scenarios, and offer immediate feedback, aiding young learners. Furthermore, digital resources provide accessible coaching for parents, enabling

them to learn about emotional development and responsive strategies without needing to attend formal training.

However, multiple studies also caution against the overuse of screens or unsupervised media exposure. Livingstone and Blum-Ross (2020) describe the “digital parenting contradiction,” wherein technology meant to support parenting inadvertently undermines emotional connection by replacing rather than complementing interpersonal interaction. Children who spend prolonged periods on screens without parental engagement may experience emotional dysregulation, difficulty recognizing social cues, and increased irritability (Baharun & Finori, 2019; Wenling et al., 2023).

This evidence supports the importance of active mediation, where parents do not merely monitor or restrict digital content but engage with it meaningfully alongside the child. Smart Parenting thus promotes a model of interactive, emotionally reflective digital use, transforming screens into tools of connection rather than disconnection.

#### **4. Cultural and Contextual Influences on Parenting Practices**

Cultural values, societal expectations, and contextual realities deeply influence parenting behaviors. Therefore, the application of Smart Parenting cannot be separated from the socio-cultural environment in which it operates. This theme emerged strongly from the reviewed literature, underscoring the necessity of contextual adaptation in parenting strategies.

Cultural norms shape how families express, manage, and interpret emotions. In collectivist cultures such as East Asia, emotional restraint, social harmony, and deference to authority are emphasized, often leading parents to discourage overt emotional expression (Blandon, 2015). In contrast, individualist cultures often promote emotional autonomy and open discussion of feelings. Smart Parenting must navigate this tension by recognizing that emotional development may take different forms across cultural settings.

Regarding economic context, resource disparities significantly impact parents' capacity to use digital tools. Thompson et al. (2023) found that parents from low-income backgrounds often face technological and informational barriers that limit their participation in Smart Parenting practices. These families may not have access to stable internet, quality devices, or curated content and thus rely more heavily on traditional methods, sometimes without guidance or support.

Moreover, Mamauag et al. (2021) argue for culturally grounded parenting programs that reflect local values while integrating evidence-based practices. This means that smart parenting must not be imported wholesale from Western contexts but should be co-designed with communities, integrating local languages, parenting idioms, and social structures.

In short, Smart Parenting should be understood as a culturally flexible and context-sensitive framework. It can be molded to fit the emotional needs of children across diverse settings while still maintaining its foundational commitment to emotional intelligence and responsive caregiving.

## **5. Identified Research Gaps and Future Directions**

While the existing literature offers valuable insights, it also reveals several significant gaps that future research must address. First, most studies examine digital parenting, emotional responsiveness, or cultural context in isolation. There remains a lack of integrative models that combine these dimensions into a cohesive theoretical and practical framework.

Second, there is a notable shortage of longitudinal studies. Emotional development is a cumulative process, yet few studies have examined how smart parenting practices influence children over time. Longitudinal designs are needed to determine whether early interventions or habits persist into middle childhood or adolescence.

Third, the role of fathers in Smart Parenting is significantly underrepresented. Much of the existing literature centers on maternal influence despite growing evidence that fathers play crucial roles in emotional modeling, especially in problem-solving, boundary-setting, and emotion regulation (Mafaza & Mayang Sarry, 2022). Future research should intentionally explore paternal roles across cultural contexts.

Fourth, implementing Smart Parenting remains a challenge. Many parents lack access to practical, evidence-based tools that are affordable and culturally relevant. Governments, schools, and organizations can contribute by developing modular programs, community-based workshops, and mobile apps that translate research into everyday strategies.

Finally, the field needs greater attention to digital emotional literacy for children and parents. As media becomes a primary channel for learning, parents must develop skills to evaluate emotional content, choose age-appropriate digital materials, and scaffold conversations that promote self-awareness and empathy. By addressing these gaps, future research can refine the theoretical understanding of Smart Parenting and provide the scalable, inclusive, and context-aware solutions needed to support emotional development in diverse family environments

## **D. CONCLUSION**

This study highlights smart parenting as a holistic, emotionally responsive, and digitally adaptive framework supporting early childhood emotional development. By integrating emotional literacy, relational consistency, interactive digital engagement, and cultural sensitivity, Smart parenting provides a valuable guide for caregivers in navigating the complexities of raising emotionally competent children in the digital era. The findings call for developing culturally grounded parenting programs, emotionally intelligent digital tools, and cross-sectoral policies that embed emotional learning into early childhood education and family support systems. Future research must validate this framework across diverse socio-cultural settings, incorporate longitudinal designs, include diverse caregiver roles such as fathers, and explore neuroscientific and digital literacy dimensions to strengthen theory and practice.



## E. REFERENCES

- Baharun, H., & Finori, F. D. (2019). Smart Techno Parenting: Alternatif Pendidikan Anak Pada Era Teknologi Digital. *Jurnal Tatsqif*, 17(1), 52–69. <https://doi.org/10.20414/jtq.v17i1.625>
- Blandon, A. Y. (2015). Mothers' and Fathers' Responses to Children's Negative Emotions: Family and Physiological Correlates. *Family Relations*, 64(3), 431–445. <https://doi.org/10.1111/fare.12125>
- Bornstein, M. H. (2024). Parenting Science and Emotion Regulation: Principles, Effects, Determinants, and Supports. In I. Roskam, J. J. Gross, & M. Mikolajczak (Eds.), *Emotion Regulation and Parenting* (pp. 3–34). Cambridge University Press. <https://doi.org/10.1017/9781009304368.003>
- Bowlby, J. (1980). *Attachment and Loss: Vol. III*. Basic Books.
- Crouse, J. J., LaMonica, H. M., Song, Y. J. C., Boulton, K. A., Rohleder, C., DeMayo, M. M., Wilson, C. E., Loblay, V., Hindmarsh, G., Stratigos, T., Krausz, M., Foo, N., Teo, M., Hunter, A., Guastella, A. J., Banati, R. B., Troy, J., & Hickie, I. B. (2023). Designing an App for Parents and Caregivers to Promote Cognitive and Socioemotional Development and Well-being Among Children Aged 0 to 5 Years in Diverse Cultural Settings: Scientific Framework. *JMIR Pediatrics and Parenting*, 6(1). <https://doi.org/10.2196/38921>
- Denham, S. A., Bassett, H. H., Mincic, M., Kalb, S., Way, E., & Wyatt, T. (2012). Social-Emotional Learning Profiles of Preschoolers' Early School Success: A Person-Centered Approach. *Learn Individ Differ*, 22(2), 178–189. <https://doi.org/10.1016/j.lindif.2011.05.001.Social-Emotional>
- Dix, T. (1991). The affective organization of parenting: Adaptive and maladaptive processes. *Psychological Bulletin*, 10(1), 3–25.
- Dozier, M., & Bernard, K. (2023). Intervening Early: Socioemotional Interventions Targeting the Parent–Infant Relationship. *Annual Review of Developmental Psychology*, 5(1), 115–135. <https://doi.org/10.1146/annurev-devpsych-120621-043254>
- Edwards, N. M. (2012). Understanding Emotional Development: Helping Early Childhood Providers Better Support Families. *NHSA Dialog*, 15(4), 355–370. <https://doi.org/10.1080/15240754.2012.725490>
- Giráldez, V. A., Sanmiguel-Rodríguez, A., Alvarez, O., & Padín, R. (2025). Emotional and Social Development in Early Childhood Education. In *Globalizing Approaches in Early Childhood Education*. IGI Global Scientific Publishing. <https://doi.org/https://doi.org/10.4018/979-8-3693-0634-5.ch010>
- Goleman, D. (1995). *Emotional Intelligence*. Bloomsbury Publishing.
- Hossain, Z., & Eisberg, G. (2020). Parenting and Academic Socialization of Young Children: Sociocultural Context for Early Childhood Development in South Asian Families. In *Parents and Caregivers Across Cultures* (pp. 89–103). Springer, Cham.

[https://doi.org/https://doi.org/10.1007/978-3-030-35590-6\\_7](https://doi.org/https://doi.org/10.1007/978-3-030-35590-6_7)

- Indrajaya, M. A., Chao, W.-H., Semwaiko, G. S., Pusparani, Y., & Yang, C.-Y. (2024). Enhancing parent-child interaction through the gamification of parenting: An exploration of digital interventions. *E-Learning and Digital Media*. <https://doi.org/https://doi.org/10.1177/20427530241310505>
- Ingrassia, L. B., & Massimo. (2020). Digital Parenting: Raising and Protecting Children in Media World. In *Parenting - Studies by an Ecocultural and Transactional Perspective weekends*. <https://doi.org/http://dx.doi.org/10.5772/intechopen.92579>
- Jeon, J., & Park, D. (2024). Your feelings are reasonable: Emotional validation promotes persistence among preschoolers. *Developmental Science*, 27(5), 1–10. <https://doi.org/10.1111/desc.13523>
- Livingstone, S., & Blum-Ross, A. (2020). The Contradictions of Digital Parenting. *Parenting for a Digital Future*, 8. <https://blogs.lse.ac.uk/parenting4digitalfuture/2020/12/09/digital-parenting-contradictions/>
- Mafaza, M., & Mayang Sarry, S. (2022). Emotional Regulation Ability in Early Childhood: Role of Coparenting and Mindful Parenting. *Journal An-Nafs: Kajian Penelitian Psikologi*, 7(1), 35–49. <https://doi.org/10.33367/psi.v7i1.2000>
- Mamaug, B. L., Alampay, L. P., Lachman, J. M., Madrid, B. J., Hutchings, J., Ward, C. L., & Gardner, F. (2021). A South-to-South Cultural Adaptation of an Evidence-Based Parenting Program for Families in the Philippines. *Family Process*, 60(4), 1202–1216. <https://doi.org/10.1111/famp.12625>
- Nichols, S., & Selim, N. (2022). Digitally Mediated Parenting: A Review of the Literature. *Societies*, 12(2). <https://doi.org/10.3390/soc12020060>
- Rout, B., & Bhoi, T. (2024). SEL and Technology : The Role of Digital Tools in Promoting Emotional and Social Skills. *International Journal for Research in Applied Science & Engineering Technology (IJRASET)*, 12(XII).
- Sabey, A. K., Lafrance, A., Furrow, J., Diamond, G., & Hughes, D. (2024). A family reunion of “clinical cousins”: Attachment and emotion in four family-oriented therapy models. *Family Process*. <https://doi.org/https://doi.org/10.1111/famp.13001>
- Salsabila, Hasanati, N., & Pahmiah. (2024). Exploring Digital Parenting: A Systematic Review of Approaches, Challenges, and Outcomes. *JSRET (Journal of Scientific, Research, Education, and Technology)*, 3(4), 1856–1867.
- Slavković, A. (2020). Early attachment and emotional regulation. *Research in Pedagogy*, 10(2), 462–475. <https://doi.org/10.5937/istrped2002462s>
- Suargani, G., Surya, J., & Maullasari, S. (2023). Smart Techno Parenting for Early Childhood Socio-Emotional Development in the Digital Age. *GENIUS Indonesian Journal of Early Childhood Education*, 4(2), 133–150. <https://doi.org/10.35719/gns.v4i2.116>
- Thompson, D. A., Jimenez-Zambrano, A. M., Ringwood, H., Tschann, J. M., & Clark, L.

- (2023). Parenting a Toddler in the Era of Pervasive Screens: Interviews with Low-Income Mexican American Parents. *International Journal of Environmental Research and Public Health*, 20(8). <https://doi.org/10.3390/ijerph20085461>
- Veraksa, A. N., Bukhalenkova, D. A., Chichinina, E. A., & Almazova, O. V. (2021). Relationship Between the Use of Digital Devices and Executive Functions Development in Preschool Children. *Psychological Science and Education*, 26(1), 51–59. <https://doi.org/10.31857/S020595920018769-1>
- Veraksa, N. E., & Belolutskaia, A. K. (2021). Emotional and Cognitive Development of Preschool Children: Overview of International and Russian Studies on Role of Dialectical Thinking in the Regulation of Affect and Recognition of Complex Feelings. *RUDN Journal of Psychology and Pedagogics*, 18(1), 104–121. <https://doi.org/10.22363/2313-1683-2021-18-1-104-121>
- Wenling, L., Muhamad, M. M., Fakhrudin, F. M., Qiuyang, H., & Weili, Z. (2023). Exploring the Impact of Emotional Education in Parent-Child Interactions on Early Childhood Emotional Intelligence Development. *International Journal of Academic Research in Progressive Education and Development*, 12(3), 691–699. <https://doi.org/10.6007/ijarped/v12-i3/18462>