



## RESEARCH ARTICLE

Section: *Digital Humanities***Parental knowledge of digital transformation and young children social behavior**Juju Saepudin<sup>1</sup>, Kartini<sup>2</sup>, Marpuah<sup>1</sup>, Shiyamu Manurung<sup>1</sup>, Badruzzaman<sup>1</sup> & Rahmi Utami Syarifah<sup>3\*</sup><sup>1</sup>National Research and Innovation Agency of Indonesia, Indonesia<sup>2</sup>Department of Islamic Education, STAI Publisistik Thawalib Jakarta, Indonesia<sup>3</sup>Department of Early Childhood Education, Universitas Panca Sakti Bekasi, Indonesia\*Correspondence: [syarifah.elamien@gmail.com](mailto:syarifah.elamien@gmail.com)**ABSTRACT**

The ongoing development of technology provides many opportunities for society. However, many challenges accompany this development, one of which relates to children's social behavior. Children are the core of civilization; their growth and development certainly influence the future of society. Parenting styles in substance influence children's social behavior, especially when it comes to social interaction and technology use. This research is a humanistic investigation that seeks to analyze the parents' knowledge of digital transformation in parenting practices that influence children's social behavior. This research employs a quantitative approach by examining data gathered from six prominent cities in Indonesia. Certain criteria defined a demographic from which participants were randomly selected. The research identified a correlation between parental knowledge of digital transformation, parenting styles, and children's social behavior. This study demonstrates that parents' ignorance regarding digital transformation in technology leads to their apathy towards its impact on children's social behavior. The impact was revealed through how children behave when interacting with others.

**KEYWORDS:** digital transformation, early childhood education, social behavior, technology use, technology transformation

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## Introduction

Education is vital as it differentiates humans from other species. Education enables individuals to acquire knowledge, which facilitates transformation through information and understanding, ultimately leading to an improved quality of life (Anwar, 2014). Knowledge enables individuals to earn respect, pursue a fulfilling profession, and adhere to cultural norms (Romlah, 2017). Early childhood exhibits a distinctive trajectory of growth and development encompassing physical, cognitive, and socio-emotional dimensions, which influence social behavior (Garungan, 2004). However, people rarely recognize this connection. Various factors, including the family's parenting style, influence the development of children's social conduct. The evolution of social behavior in childhood significantly influences an individual's future growth.

Parenting constitutes a process, a behavior, and a strategy. Parenting encompasses the comprehensive aspects of nurturing, supporting, educating, sustaining, and facilitating the healthy and steady development of individuals (Djamarah, 2014). Parenting influences children both favorably and badly (Djamarah, 2014). Schochib (2000) characterizes parenting as a framework of responsibilities, guidance, leadership, or administration. Parenting encompasses the methods by which parents (father and mother) direct, nurture, and instruct their children (Djamarah, 2014). Nurturing encompasses providing care, education, and support, including training (Santrock, 2007; Titis, 2013). Schochib (2000) asserts that parenting is an ongoing endeavor to nurture and direct children from infancy through puberty, characterized by consistent parental behavior. Stevi, Onibala, and Bataha (2017) assert that parenting differs among families. Parents fulfill numerous tasks, particularly in childcare (Nelson, Kushlev, & Lyubomirsky, 2014). In parenting, culture is an additional influential component beyond the parents themselves. Cultural values of parents shape their child-rearing practices, as these values affect their behaviors, attitudes, and mindset (Bornstein et al., 2010; Tarmuji, 2012; Titis, 2013).

Arafat et al. (2020) identify three parenting styles: authoritarian, permissive, and democratic. Authoritarian parents are defined by their rigidity, strictness, punitive measures, and insensitivity. They frequently compel children to adhere to their values and conform to their standards of behavior. Permissive parenting permits children to operate independently with minimal supervision or instruction. This approach appears apathetic and inactive about child development, as it focuses on material demands at the expense of emotional needs. This parenting style affords children greater autonomy and diminished oversight, typically resulting in increased lawlessness or diminished ethical standards (Stevi, Onibala, & Bataha, 2017). Democratic parenting is a parenting style that consistently promotes children's interests. People regard democratic parenting as the most effective method among the three parenting techniques. This parenting approach is flawed due to the parents' minimal influence over their children. This parenting approach is particularly appropriate for parents of adolescents to young adults (Arafat et al. 2020). Permissive parenting grants children unrestricted independence.

Accelerated technological advancements have rendered all aspects digital, hence influencing an individual's lifestyle both directly and indirectly. Devices facilitate nearly all tasks (Nariyah, 2018). Since the advent of digital technology, it has supplanted nearly every area that formerly utilized mechanical technology. The emergence of computers, the internet, and mobile phones has catalyzed this advancement (Nariyah, 2018). Subsequent advancements have integrated digital technology into everyday life. The digital realm engenders a digital civilization that is threefold larger than the physical society (Nariyah, 2018). The digital society originated with digital identity. A single individual does not possess this identity; some individuals have multiple digital identities (Wuryantai, 2004). This condition is not only positive; it also possesses negative aspects. The concept of digital identity enables an individual to operate without impediments (Wuryantai, 2004).

Recently, increased accessibility has produced several consequences, one of which is a decline in individual perseverance while confronting challenges (Santosa, 2015). Nariyah (2018) posits that digital technology adversely affects the physical and psychomotor development of children and adolescents, as well as impairs their communication abilities. This research aims to investigate the correlation between parents' knowledge on digital transformation and children's social behavior.

## Theoretical Framework

### *Digital transformation*

Digital transformation is an integral component of technological trends (Khan, 2016) that can influence changes

in almost all aspects of life (Stolterman & Fors, 2004). The evolution of digital technology has three phases: digital competence, digital use, and transformation (Lankshear & Knobel, 2008; Jin, 2021). Enhancing digital knowledge through transformational capability fosters innovation and creativity in digital products that enhance and innovate traditional offerings (Lankshear & Knobel, 2008). Digital transformation, an initiative toward a paperless paradigm, influences the efficacy of both individual and societal endeavors across all fields and activities (Patel & McCarthy, 2000; Roy, 2006). Khan (2016) stated that digitalization and digital transformation are unclear concepts. The digital revolution, encompassing versions 3.0, 4.0, and 5.0, has transformed numerous facets of human existence. Organizations employ the integration of information and communication technologies to enhance production and efficiency for the sustainability of the enterprise (Nurdiyah, 2023). Digitalization, a numerical framework that evolved into an electromechanical computing system, catalyzed the digital transformation (Tropp, 1993). Digitalization permeated government and other public sectors in the early 21st century, effecting societal transformation (Khan, 2016). The digitalization process has enhanced the efficiency of communities, business enterprises, and social matters. Changes in rules, competition, the shift to online industries, how customers act and what they expect, understanding the benefits of digital technology, and being ready with resources have all driven digital transformation (Hadiono & Santi, 2020). Digitalization employs sophisticated information technology to leverage digital technology and data (Baker, 2014; Bounfour, 2016). Digitalization entails the utilization of analog-to-digital converters for data digitization (Jin, 2021). Since the late 20th century, digitalization has escalated owing to the utilization of the internet (Lankshear & Knobel, 2008; Bounfour, 2016). Digital transformation transcends the mere process of digitalization (Khan, 2016). Rainer and Prince (2015) emphasized that digital transformation requires assessing the impact of new technologies on products, processes, and organizations. The advantages of digital transformation are clearly visible in several vital aspects (Khan, 2016; Collin et al., 2015) so that it has a significant influence on the development of the younger generation (Bohnert & Gracia, 2020).

#### *Social behavior and social development of children*

Social development is critical to children's development. Social development enables youngsters to comprehend their feelings and those of others, cultivate significant relationships, and maneuver through their social environment. This social growth is intricately linked to their social behavior. Children's social conduct includes their interactions with others, including communication, cooperation, and dispute resolution. This social conduct is shaped by personality, emotions, parenting, and environment (Ding & Ding, 2024). Children's social behavior may be either constructive or detrimental. Matson (2017) delineates positive social behavior as encompassing collaboration, generosity, and empathy, whereas negative social behavior includes aggressiveness, exclusion, and bullying. Social development and behavior are intricately linked to parenting (Jaga, Ke Lomi, & Hornay, 2023). Children's social development is derived from their interactions with family, influenced by parenting styles at home, as well as how they interact with peers and adults. The social development during early life influences the establishment of social interactions, hence determining social conduct (Ningrum, Utami, & Sumadi, 2024). Merrell and Gimpel (1998) assert that social behavior encompasses the actions exhibited by people toward society. They perceive social conduct as adaptive behavior. Gresham, Van, and Cook (2006) delineate conflicting maladaptive habits that frequently obstruct the enhancement of social skills.

Children progressively acclimate to the norms, ethics, and traditions of society. Hurlock (2017) argues that we can use behavioral indicators to understand the intensity, frequency, transience, individuality, and variability of children's emotional expressions as they grow. Parents, educators, and others overlook children's social development. Children's social development closely correlates with their emotional development. Social development entails engagement with others. Children with inadequate emotional growth will demonstrate poor social behavior, whereas those with robust emotional development typically display positive social behavior. Children are born devoid of social skills and the capacity to interact harmoniously with others. Children require parental direction to comprehend social interactions and daily traditions. Children's social development refers to their capacity to react to others' actions in accordance with societal standards and expectations (Desmita, 2010). The treatment youngsters get at this critical period significantly impacts their social development.

## *Parenting and Child care*

Every child grows and develops differently. According to Yuliani (2006), children who receive sufficient stimulation from the environment and school develop effectively. Children get knowledge from their family from a young age. Children mostly acquire knowledge at home. Parents educate their children through auditory, visual, tactile, and experiential means (Richard, 2004). With the progression of science and technology, an increasing number of women are entering the workforce. Nowadays, a mother not only can be a breadwinner but also can look after her family. Close family members, like grandparents, as well as nannies, provide childcare. They are only assisting parents to educate children. Yet, the habit shown by the nanny influences children's social development (Marini & Andriani, 2005). Therefore, when parents primarily entrust the care and education of their children to the nanny, the nanny's parenting style takes precedence over their own. Education is vital in familial, academic, and communal contexts. Parents bear the principal responsibility for child-rearing within the family, succeeded by the nuclear family. Children adopt formal educational parenting styles after assimilating familial parenting patterns. Setiawan (2017) contends that children in the 5.0 era require an appropriate parenting framework due to their inseparable relationship with technology.

Parents play a crucial role in the digital age by managing their children's technology addiction (Setiawan, 2017). Initially, this assertion may appear accurate; nevertheless, upon closer examination, it becomes evident that parents are preoccupied with fulfilling the family's requirements for apparel, housing, and sustenance. Due to the constant proximity of parents to their children, this assertion seems inaccurate. Faisal (2016) asserts that parents should prioritize a blend of physical and psychological requirements, encompassing security, affection, and socialization. In the digital age, caregivers must adopt a more authoritarian approach to mitigate technology addiction (Faisal, 2016). Aslan (2017) argues that technology has more influence on individual social development than parental guidance in children and adolescents. Hurlock (2017) states that in the digital era, parenting is the most reliable predictor of child growth. This parenting pattern is a role model for children (Tridonanto, 2014). Parents need to understand more about the developmental needs of their children that continue to grow as they grow older. However, in reality parents rarely follow their children's development and adapt to these developments, especially those related to digital technology. This has a fairly significant effect on their decisions in raising children. Hayyumas (2016) and Gunarsa & Gunarsa (2008) stated that the speed of parents in following technological developments often lags behind children's knowledge of the same technology. So, their role as controllers becomes a little more difficult, but this must still be done to ensure that the child has positive and good social development and behavior (Murdoko, 2017).

## **Method**

This research employs qualitative approaches utilizing descriptive techniques in assisting the data analysis. Furthermore, we examined the data using Microsoft Excel for correlation and ANOVA analysis. We collected data through questionnaires and interviews. Data collection occurred in six Indonesian cities: Bandung, Jakarta, Semarang, Yogyakarta, Surabaya, and Denpasar. The study population comprised 12 kindergartens, with a sample of two selected from each city. Interviews were conducted with kindergarten teachers, and questionnaires were given to parents of children aged three to six years enrolled in those kindergartens. Informants were randomly selected from the relevant kindergartens. Researchers devised this questionnaire and questions for the interviews to gather data on children's social development during their school time. These were used to assess and scrutinize children's social development and interrogate them on this subject. Of the six locations, researchers delivered 600 questionnaires. A total of 453 surveys were collected from 600, although only 363 were deemed appropriate for data analysis due to their provision of consistent and comprehensive information as specified in the questions (see Table 1). The survey sought to gather data on children's emotional development at home, parental perspectives on digital transformation and device usage, and parenting strategies about technology utilization.

Table 1. Detailed data obtained from each location

Origin	N
Bandung (B)	63
Jakarta (J)	70

Semarang (Sm)	55
Yogyakarta (Y)	56
Surabaya (Sb)	71
Denpasar (D)	48
Total	363

There are three indicators used in the analysis, namely: digital transformation, Parenting related to technology use to show parenting patterns, and children's social behavior. From each indicator, there are three points observed. The initial data was then analyzed by categorizing information using descriptions (see Table 2) and scaling using a 5-scale Likert scale from very good (5) to bad (1), while a 4-scale Likert scale was applied to determine the level of children's emotional development from very good (4) to bad (1). Meanwhile, to measure the ability of variables, this study applied 5 scales (see Table 3).

Table 2. Variables and indicators used to examine parenting patterns towards digital transformation and children's social behavior.

Indicator	Information
Digital transformation (DT)	1. Knowledge in technology transformation 2. Knowledge of digital technology 3. Use of digital technology
Parenting related technology use (P)	1. Importance of parenting for children's social behavior 2. Knowledge of digital technology on children's behavior 3. Use of digital technology in child care
Children's Social Behavior (CSB)	1. Demonstrating an attitude of tolerance and sympathy towards others 2. The demonstration of children's ethics in social behavior 3. Children's interpersonal skills

Table 3. Categories for Score Range

Average Score	Information
0.00 – 1.00	Very Poor
1.01 – 2.00	Poor
2.01 – 3.00	Adequate
3.01 – 4.00	Good
4.01 – 5.00	Very good

Ethical approval was granted by the Indonesian National Research and Innovation Agency (with assignment letter Number B-8765/III.8.7/TK.04.06/10/2023) as well as permission from the kindergartens selected as research locations. To confirm participants' understanding and willingness to take part as respondents in the study, a statement was included at the beginning of the survey, in which respondents confirmed that their responses would be used as data in the study. Participants were informed that they could participate voluntarily and withdraw at any time without facing consequences. They could also choose not to answer any questions. Prior to the semi-structured interviews, we asked participants to provide informed consent.

## Results and Discussion

### *Respondent Characteristics*

Table 4. Respondent Characteristics

Information	N	Percentage (%)
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Age		
• Under 21 years	16	4.44
• 21 – 25 years	143	39.72
• 26 – 30 years	174	48.33
• 31 – 35 years	20	5.56
• Over 35 years old	7	1.95
Work		
• Government employees	88	24.44
• Teacher/Lecturer	108	Rp. 30,000
• Private sector employees	89	24.73
• Entrepreneur/businessman	75	20.83
Educational background		
• Senior High School	11	3.06
• Diploma	5	1.39
• Undergraduate School	317	88.05
• Graduate/Postgraduate School	27	7.50
Family members		
• 3 (with one child)	148	41.11
• 4 (with one child and a grandparent)	12	3.33
• 4 (with two children)	117	32.50
• 5 (with two children and a grandparent)	78	21.67
• More than 5 (with more than two children)	5	1.39
Financial Capability (monthly income)		
• More than Rp. 20 million	1	0.28
• Rp. 10 – 20 million	5	1.39
• Rp 2 – 10 million	284	78.89
• Less than Rp 2 million	70	19.44

This research shows that of 360 respondents, 88.05% aged between 21 and 30 years, 39.72% aged between 21 and 25 years, and 48.33% aged between 26 and 30 years. These ranges of age indicated that parents considered as Generation Z (Gen Z), encompassing those born between 1997 and 2012 as well as Generation Y (Gen Y), comprising individuals born from 1981 to 1996. These results showed that all respondents are familiar with or have used gadgets or other digital technologies. Furthermore, based on financial capacity and employment data, the researcher determined that all respondents possess the means to acquire personal gadgets and utilize them actively. The educational background indicates that the respondents possess a commendable level of education, as evidenced by 88.05% holding a bachelor's degree. This study revealed that 41.11% of respondents belonged

to small families with one child, while 32.5% had two children. The data indicates that the responsibility of caregiving within the family rests with the parents (refer to Table 3). Regrettably, the information acquired did not reveal any caregivers who assisted parents in the care of children. Data suggests that over 21.67% of households had other individuals, such as grandparents, who assist with child care.

### Data analysis

This research determined a mean score for each indicator utilized in each location (city), as presented in Table 4. The statistics show that for the digital transformation variable, people's technology skills have an average score of 3.25, which is considered satisfactory (see Table 3). On the other hand, for the other two areas (understanding how to use technology and its applications), the mean scores from the six locations are 2.46 and 2.44, indicating a need for improvement. Comparable outcomes are observed in the domain of children's social development. All indicators used to assess show sufficient category, ranging between 2.01 and 3.00. These are showed from indicators of showing tolerance and sympathy at 2.71, the ethics at 2.68, and the interpersonal skills at 2.86. Overall, the results indicate that children's emotional development is considered adequate. However, the results pertaining to the parenting variable indicate that all three indicators exhibit mean scores ranging between 1.01 and 2.00, categorizing them as low. The mean score for understanding the importance of children's social behavior is 1.78; for Knowledge of digital technology on children's behavior is 1.65; and use of digital technology in child care is 1.63.

Table 5. Average scores obtained from the indicators used at each location

Indicator	Score							
	B	J	Sm	Y	Sb	D	Total	Mean
Digital Transformation (DT)								
Knowledge in technology transformation	3.32	3.50	3.09	3.14	3.35	3.12	19.52	3.25
Knowledge of digital technology	2.62	2.57	2.36	2.36	2.55	2.29	14.75	2.46
Use of digital technology	2.41	2.31	2.42	2.77	2.45	2.29	14.66	2.44
Parenting related to technology use (P)								
Importance of parenting patterns for children's social behavior	1.63	1.81	1.84	1.84	1.82	1.75	10.69	1.78
Knowledge of digital technology on children's social behavior	1.56	1.73	1.67	1.77	1.68	1.48	9.88	1.65
Use of digital technology in child care	1.46	1.84	1.64	1.64	1.75	1.46	9.79	1.63
Children's Social Behavior (CSB)								
Demonstrating an attitude of tolerance and sympathy towards others	2.83	2.60	2.75	3.30	2.65	2.15	16.27	2.71
Demonstrating children's ethics in social behavior	2.30	2.74	2.80	3.21	2.66	2.35	16.07	2.68
Children's interpersonal skills	2.38	2.87	3.00	3.38	2.86	2.65	17.13	2.86

The result of the correlation test revealed a substantial positive association among the variables. The test demonstrates the positive and significant influence of digital transformation on parenting styles, proved by a correlation score of 0.924, which is close to 1.00 indicating its significance. Yet, its influence on children's social behavior shows comparatively weaker significance proved by its correlation score of 0.595. Meanwhile, the correlation between parenting patterns and children's social behavior is highly positive despite lower than the correlation score between digital transformation and parenting proved by its correlation score of 0.681 (see Table 6).

Table 6. Correlation of Indicators Used

	DT	P	CSB
DT	1		
P	0.924	1	
CSB	0.595	0.681	1

## Results

Data analysis using mean scores and correlation tests reveals that respondents demonstrate commendable knowledge of digital transformation. This finding was substantiated by the mean scores of all respondents, which fell within the range of 2.01 - 3.00 for indicators of knowledge and use, while one indicator reached a range of 3.01 - 4.00 for technology use. Simultaneously, respondents rated all indicators of children's social behavior as sufficient, with scores ranging from 2.01 to 3.00. Nevertheless, in the parenting variable, all indicators exhibited subpar outcomes. These results suggest that the parenting skills of parents in the current digital revolution era are comparatively inadequate. The correlation test corroborates the results, demonstrating a substantial positive association for each employed variable. Furthermore, the data obtained from the interview indicated that children's social behavior in school was deemed adequate (see Figure 1). All indicators categorize children's emotional development as sufficient, with certain aspects appearing favorable. This finding is consistent with the average CSB data analysis, which shows the score is adequate. These results confirm the correlation between parenting styles during the digital transformation and child development, indicating that these parenting styles have a significant impact on children's social development. Furthermore, it is seen that parenting practices related to the implementation of digital transformation are categorized as suboptimal, even though parents' understanding of technology is considered adequate. This situation indicates that parents' lack of understanding of digital technology and its application to parenting patterns causes a lack of appropriateness in determining effective parenting strategies in the context of digital transformation to develop children's social behavior.

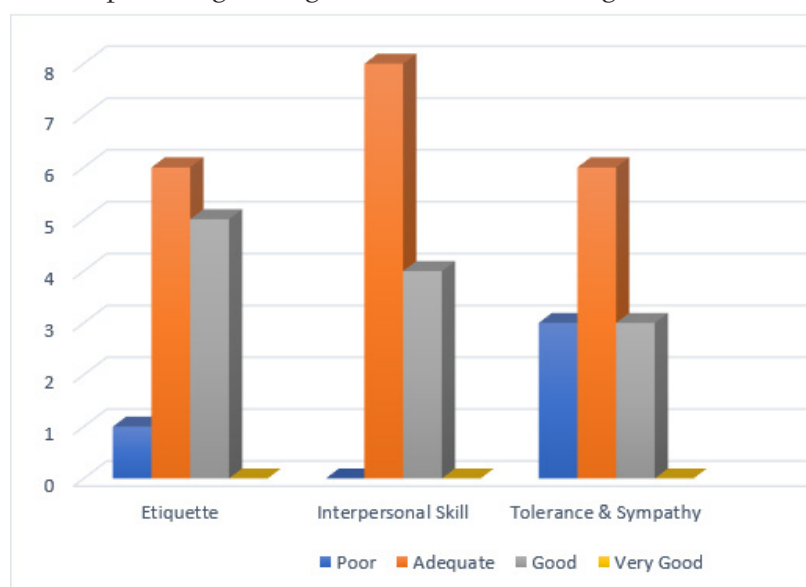


Figure 1. Children's social behavior at school

## Discussion

Growth is an easily measurable bodily change. Development refers to the enhancement of the body's structural and functional complexity. Growth refers to the manifestation of measurable quantitative changes. Development refers to the enhancement of the body's structural and functional capabilities, which is highly intricate. Play, learning, speech, and behavior all reflect development (Seefeldt, Wasik, & Seefeldt, 2006). Numerous internal and environmental influences affect the growth and development of children. Internal factors in children encompass gender, age, racial differences, genetics, and chromosomes. External elements encompass the social environment, diet, economy, and psychological stimulation. The area of child development has evolved into a vast and intricate domain of knowledge. Human development encompasses three primary domains. Initially, physical growth encompasses alterations in dimensions, posture, appearance, motor abilities, perception, and overall physical health.

Cognitive development refers to alterations in an individual's intellectual capacities, encompassing memory, academic and practical knowledge, problem-solving skills, imagination, creativity, and linguistic proficiency. Third, emotional and social development encompasses alterations in an individual's emotional communication, self-awareness, comprehension of others, interpersonal skills, friendships, relationships, and moral reasoning and conduct (Berk, 2012). Child social development is influenced by different influences,



which are generally categorized into three domains: home, school, and society. The family constitutes a system comprised of interrelated and interacting components. Relationships are inherently reciprocal. The views and parenting styles of parents will directly or indirectly influence a child's emotional regulation capabilities. Effective parenting within the family can enhance a child's intellectual and physical capabilities, as well as foster emotional and social growth (Purnama, 2017). A school is a formal educational institution that administers instruction, supervision, and training programs to facilitate the holistic development of children in moral, spiritual, intellectual, emotional, and social dimensions. School significantly influences a child's personality development following the family, affecting their cognition, actions, and behavior. Society is an environment that directly or indirectly impacts the growth and development of children (Sugihartati, 2014). Various research studies on child development have focused on children's social growth, particularly with media, methodologies, stimuli, and elements that facilitate or hinder social development.

Parental characteristics and parenting styles significantly influence children's social development. Using different parenting styles has been shown to affect how children grow and develop, including their thinking skills and social skills (Fraenkel, 1977). Similarly, research examines the impact of technology utilization on children's emotional and social development. The findings of this study corroborate prior research about these aspects, indicating a correlation between digital transition and children's social development. This study observes that the impact of technological advancements is considerable. This study identified circumstances in which parental or familial care during the digital revolution is less apparent, as indicated by an average score in the low range (1.01 - 2.00). The findings may stem from parents' inability to comprehend the appropriate application of technology in childcare, owing to their insufficient grasp of children's emotional development and technology itself. The finding corroborates prior research concerning the impact of parental comprehension on child-rearing practices (Fellasari & Lestari, 2017; Hairina, 2016; Rahman, Mardhiah, & Azmidar, 2015; Hasnawati, 2013; Widyarini, 2009; Merrell & Gimpel, 1998).

## **Conclusion**

This study found a correlation between digital transformation, parenting style, and children's social development and behavior as evidenced by the correlation test. In addition, from the analysis of the average score, this study showed that the use of technology related to digital transformation was considered satisfactory (between 3.01 and 4.00) and sufficient (between 2.01 and 3.00). In the CSB variable, the average score showed a satisfactory category. CSB data for children in schools further supports this, as it shows an average that is included in the sufficient category. However, the findings show a difference in the average score regarding parenting patterns, with the average being in the lower category (ranging from 1.01 to 2.00). This conclusion suggests that parents' comprehension of utilizing technology for child care during the digital transformation era remains insufficient or underdeveloped.

Based on these results, it is hoped that this study can serve as a reference for parents and early childhood education experts regarding the appropriate parenting approach for this digital era, ensuring that children's development, particularly in social and emotional aspects, can proceed effectively. However, we acknowledge that the results of this study carry significant implications. The research acknowledges certain limitations, particularly concerning the selection of the population and the indicators used for evaluating parenting and digital transformation. Therefore, it is expected that further investigations will address the limitations this study identifies.

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This research was employed quillbolt.com tool for checking grammar accuracy and text coherence in order to assure the easiness and readability of the manuscript.

## **Conflicts of Interest**

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

## **Biographies**

Juju Saepudin was graduated from postgraduate school and currently works as researcher in National Research and Innovation Agency of Indonesia (BRIN). His research emphasizes on young children education, education policy, and community.

Kartini was graduated from postgraduate school and currently works as lecturer at Islamic Education in STAI Publisistik Thawalib Jakarta. Her research mostly focuses on education policy and society behavior.

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## **Authorship and Level of Contribution**

Juju Saepudin (first author) is contributed in writing original (draft) of the manuscript, organizing data collection, and monitoring the research progress. Kartini (second author) is contributed in analyzing data, editing, research methodology, and theoretical framework. Marpuah (third author) is contributed in assessing initial data and gathering data. Shiyamu Manurung (fourth author) is contributed in gathering data. Badruzzaman (fifth author) is contributed in gathering data. And Rahmi Utami Syarifah (a corresponding author and the last author) is contributed in writing article and correspondence.

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