BEHAVIORAL MANIFESTATIONS OF THE DIGITAL NATIVE AND EXPLORATORY STUDY OF GEN ALPHA IN THE PRIMARY CLASSROOM

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Abstract

Generation Alpha, born from 2010 onward, represents the first cohort to grow up entirely within a digitally immersive environment. Their early and continuous exposure to technology has significantly influenced their cognitive, social, and emotional development, posing both opportunities and challenges for primary education. This exploratory qualitative study investigates the behavioral manifestations of Generation Alpha students in primary classrooms, with a focus on understanding how their digital native status shapes classroom engagement, attention patterns, social interactions, and learning behaviors. Data were collected through non-participant classroom observations and semi-structured interviews with primary school teachers. Thematic analysis revealed key behavioral patterns, including high visual-spatial abilities, rapid attentional shifting, preference for instant feedback, difficulties with sustained focus, and evolving communication styles influenced by digital media. Teachers also reported that traditional classroom management strategies were increasingly ineffective, highlighting the need for flexible, personalized, and technology-integrated pedagogical approaches. The findings suggest that Generation Alpha students thrive in learning environments that combine digital tools with hands-on activities, emotional support, and real-world relevance. This study contributes to a growing body of literature on generational shifts in education and offers practical insights for educators seeking to bridge the gap between conventional teaching practices and the learning needs of digitally native learners.

Key words: Generation Alpha, Digital Natives, Behavioral Manifestations; Primary Classroom, Attention and Engagement, Qualitative Study, Classroom Management; Technology-Integrated Learning.

1. INTRODUCTION

Generation Alpha. Children born between 2010-2025 belong to this generation (Munson, 2024). With a maximum age of around 13, this new generation is quietly reshaping the older strategies of learning and playing in schools. This generation has already established themselves in the world of consumerism and technological advancement coined by an Australian social researcher, (Swargiary ,2024: Bandara et al.,2024) The first generation to fully develop and be born in the twenty-first century is known as Generation Alpha. Majority of them will live to see the twenty-second century (Hatfield, 2025). Gen alpha has been deprived of the childhood that millennials experienced it is now more concentrated with gadgets and artificial feelings which is overly dozed by quick boredoms anxiety and feeling depressed most of the times (Keengwe ,2018). While Generation Z saw growth in customization, Generation Alpha has experienced personalization, where anything from Nutella jars and Coke cans to children's books can be ordered with their names on them (dos Reis,2018)

Generation Alpha are the kids who have already filled our schools and soon will be progressing towards universities, they are not at all shy about questioning how they are taught (Munson, 2024). They are growing up with magna access to information and are conscious of how fast educational world is changing for them to learn to explore and navigate. They won't settle for the old ways; they're going to demand unique, personalized ways of learning that fit their specific needs and skills (Thai etal.,2026).

Academic institutions are already trying to figure out how to teach, how to keep students interested, and how to improve the overall student experience. But one fact is crystal clear that the present and future classroom have to be less about sitting and listening and more about doing, creating, and interacting through digital means (El-Shihy,2026). Behavioral issues in gen alpha have been creating alarming ripples in educational setups all around the world. Some common manifestation in these digital natives effecting their performances in class include not

being able to concentrate fidgeting hyperactive being snobbish rebellious, they are unable to comprehend with writing skills profoundly affecting classroom teachings (Anderson and Baumi, 2026). If guided well, Generation Alpha can harness growth opportunities and mature into productive contributors to society. It is thus important to explore and delve into this generational shift from the conventional educational atmosphere to a thought-provoking, happening ecosystem for this generation to grow, evolve and generously contribute to the future. An enthusiastic learning environment caters children to shape their learning curve it aids in acquiring skills which is the of hour (Jin and Rui, 2026).

In today's classrooms, a new generation is quietly reshaping how we think about learning, playing, and connection (dos Reis,2018). Generation Alpha, born from 2010 onward, is the first cohort to grow up entirely in the digital age, surrounded by smartphones, tablets, and instant access to information (Thai etal.,2026). These "digital natives" interact with technology as naturally as past generations played with toys or read books. But what does this mean for their behavior in primary school settings, where traditional education meets a world wired for constant connectivity? This exploratory study dives into the behavioral manifestations of Gen Alpha in primary classrooms, seeking to understand how their digital upbringing influences their social interactions, learning habits, and emotional responses. magine a first grader zooming through a tablet game or a fifth grader sharing a funny video with classmates. For these kids, technology isn't just a tool, it's part of who they are (Weber and Lynch,2026). They're creative and quick to learn new apps, but teachers notice they can also struggle to focus for long or get frustrated when things aren't instant. This study explores these behaviors through classroom observations and teacher interviews to understand how to create learning spaces where these kids can shine, blending their digital skills with the human need for connection and curiosity. This immersion shapes how they think, solve problems, and even express themselves. In classrooms, teachers report bursts of creativity alongside challenges like shorter attention spans or a preference for instant feedback, mirroring the fast-paced digital platforms these kids know so well. Yet, there's a human side to this story: moments of frustration when Wi-Fi lags, or the joy of sharing a funny video with a friend. These behaviors reflect a generation balancing digital fluency with the timeless needs of childhood curiosity, connection, and a sense of belonging.

This study will aim to capture these manifestations through observations and interviews in primary classrooms and will facilitate the exploratory approach to determine how Gen Alpha's digital native status influences their engagement with peers, teachers, and learning itself. By examining their behaviors, we hope to uncover patterns that can guide educators in fostering environments where digital and human worlds blend, nurturing kids who are as comfortable with code as they are with crayons.

Generation Alpha kids are growing up surrounded by screens and tech from the moment they're born, earning them the title of true "digital natives" (Shera, 2026). But what does that really look like in a primary classroom? We don't yet fully understand how all this tech shapes the way these kids act, learn, and connect with others at school. This study dives into those questions, exploring how their digital world influences their behavior, from how they engage in lessons to how they interact with classmates. We aim to figure out what this means for teachers working to create a classroom where these kids can thrive.

LITERATURE REVIEW

1- The classroom reality: The primary classroom of the 2020s is a fundamentally different environment from that of even a decade ago. Today's Grade 4 and 5 students, born after 2010, belong to the cohort known as Generation Alpha (McCrindle & Fell, 2020). They are the first generation born entirely within the 21st century and are the true children of the "digital native" concept popularized by (Prensky ,2001) Gen Alpha has been immersed in a world of touchscreens, voice assistants, and on-demand content from their infancy. This literature review explores the behavioral manifestations of Gen Alpha learners in primary school settings.

In such contexts, access to institutional technology may be limited, but personal access via inexpensive smartphones and mobile data is nearly ubiquitous (Krammer et al., 2026). This has created a generation fluent digitally outside classrooms but struggle in coping with classroom cultures eventually showing in their attitudes and behavior (Shera,2026: El-Shihy, 2026). This review aims to diagnose observable behaviors the strengths, the challenges, and the subtle adaptation that are shaping Gen Alpha students. By understanding these manifestations, educators can develop pedagogical strategies that will bridge the gap between students' digital realities and the primary curriculum.

The term "digital native," coined by Prensky (2001), posited that young people who grew up surrounded by digital technology possess an innate fluency that sets them apart from "digital immigrants" who adopted technology later in life. While this dichotomy has been criticized for being overly simplistic and deterministic (Kirschner and De Bruyckere, 2017: Bandara et al., 2024), it usefully highlights a generational shift in experiences and expectations. Generation Alpha is the evolution of this concept. McCrindle and Fell (2020) define Gen Alpha as those born from 2010 to 2024(Mezouari and Hemida, 2026). They are not just natives to a digital world but to a hyper-connected, mobile-first, and visually saturated world. They are accustomed to interacting with AI (e.g., Siri, Google Assistant) from a young age, shaping their information-seeking behaviors (Rostami et al., 2026)

2- Conceptual framework: from Digital Natives to Gen Alpha: Their social world is invested by YouTube Kids, TikTok, and mobile games, which emphasize short-form, high-engagement content (Zhu et al, 2026). which affects their communication and social skills reflected in their attitudes during classroom.

Behavioral manifestations are actions that can be seen and observed the intensity can be measured as high or low, cognitive habits, and social interactions of Gen Alpha students that can be connected to their digital upbringing (Gourneau,2025). Visual-Spatial Intelligence and Problem-Solving Research establishes that Gen Alpha students are experts with visual-spatial processing (Piepiora et al., 2025). They are growing up with high-quality animations, interactive games, and graphic interfaces, they are adept at decoding visual information and understanding spatial relationships (Shera,2026: El-Shihy, 2026). A study found that children aged 8-12 are highly skilled at navigating complex menus in video games and following visual instructions, suggesting strong non-linear problem-solving abilities (Mezouari and Hemida 2025). In a classroom, this might manifest as a student who struggles with a textual explanation of a geometric shape but excels when using a drawing app to construct it, demonstrating understanding through creation rather than description. Such students express their confusions by disturbing classroom environments and not paying attention to the subject causing distractions for themselves (Prensky ,2001).

They are not afraid to click a button to see what happens, viewing mistakes not as failures but as feedback (Odescalchi,2025). Their constant interaction with interactive media cultivates a "trial-and-error" learning approach which lays the cornerstone of computational thinking and inquiry-based learning but all this creates a dis respective attitude for the teacher (de Bruijn et al.,2025).The teacher instructions are ignored and taken for granted as they assume the data they are equipped with is more authentic information (Gourneau,2025).

3- Generation alpha and attention span. It is a misconception that Gen Alpha has shorter attention span, which unfortunately is not true. They seem lost or drifted because they need new innovative methods to keep them entertained and engrossed (Sawan, 2025). Gen alpha is too good at "rapid attentional shifting" scanning multiple sources of information quickly but often struggle with "sustained attention" on a single, non-interactive task (Zhu etal.,2026). This is a direct result of the rapid pace and rewarding feedback loops of digital media (Hatfield,2025). In the classroom, all this becomes obvious in forms of restlessness during teacher-led lectures or reading sessions. Students may fidget, lose focus, and tend to look for secondary stimuli. This is not necessarily a sign of disobedience, but a reflection of a brain conditioned for high stimulation (Montanucci et al.,2025). The challenge for educators is to cultivate deep focus without this adapted behavior.

4- Gen Alpha students are skilled at finding information but less practiced in critically evaluating or synthesizing it (Galea and Sayer ,2025). It is also found that while teens are proficient at finding information online, they often are unable to figure out the authenticity of the information they have extracted, this may lead to behavioral hesitation a challenge that is likely even more pronounced for younger children in primary school some may exhibit in denials and not ready to consume the new information and some accept it in confused state .all this may perplex the students making it more apparent in their conduct(Sawan, 2025).

It is being established by parents teachers and even medical practitioners that in gen alpha kids more cases of depression suicidal rates and even abuse have been on rise and reported (Odescalchi, 2025 :Lad ,2024).The cases have been alarming these children show anger disrespect and being lost in their own world even in social settings as if in playgrounds morning assemblies and classrooms ,the excess use of gadgets have been mistreating their minds and bodies leading to such attitudes in schools classroom. Redefining Communication and Collaboration: Gen Alpha's social interactions are heavily mediated by technology. They are comfortable with asynchronous communication (e.g., messages) and often prefer communicating through images, memes, or short videos (Zhu etal.,2026).). This fosters a unique form of digital collaboration. In group projects, they are inclined towards creating digital content together, showing strength in tools like collaborative whiteboards (e.g., Jamboard) or video editing apps, even if they are using a single shared smartphone (Sawan, 2025). This affects in-person social skills. Teachers report observing difficulties with interpreting non-verbal cues, maintaining eye contact, or engaging in sustained face-to-face conversation (Galea and Sayer ,2025).

3.RESEARCH METHODOLOGY

The study utilized a crucial approach to understanding complex social and behavioral patterns in a natural classroom environment, it will focus on exploring rather than testing any set theory. It aims to uncover the "why" and "how" behind behaviors in a real-world setting. The research was qualitative and exploratory, using detailed data collections within school premises in primary classrooms. Individuals in primary classrooms will be observed and differences in Gen Alpha behaviors will be noted. This method is deep, context-rich understanding that quantitative approaches alone cannot achieve. The data was collected across primary classrooms, purposefully selected to represent different age groups coming from not very different social environmental factors which influence behavioral issues. The participants included the students (Gen Alpha children, aged approximately 6–11years) and their classroom teachers. Due to the sensitive nature of research involving minors, informed consent was obtained from teachers as class culture is under question. Students were asked simple questions in bilingual so as to cross check the accumulated answers. But the main research will depend on answers coming from teachers who were observing them**.**

Data collection methods
Data was collected through observations and semi structured interviews.
Noninterfering naturalistic observation: It involves direct, non-participant observation of the classrooms. Maximum time in each classroom at same levels will be invested, taking detailed notes on children's behaviors, how they interact with classmates and teachers, and how they get engaged with learning activities. A low-profile

presence is crucial to minimize the "Hawthorne effect," where participants change their behavior because they know that they are being watched. actions and the scenarios as how they occur will be assimilated to put findings into writing (Chand ,2025).

Sem-Structured Interviews: Teachers will be interviewed in relevance with case study from classroom. These interviews will enable them to navigate the teacher's perceptions and experiences regarding common observations in behavioral issues, their strategies for managing them will be discussed briefly so as to develop better understanding of behavioral manifestation. (Mwita, 2022). The data collected will be analyzed thoroughly considering all aspects. All interviews will be transcribed in written data, along with all observations.

The research design abided by strict ethical guidelines, keeping confidentiality of the students. All participants (teachers, parents) will provide written informed consent. Children will provide verbal or written consent in a child-friendly format. The consent process will clearly state why the study is being conducted with participants participating voluntary and may say no anytime. All data will be anonymous to protect the identity of schools, teachers, and students.

4. FINDINGS AND DATA ANALYSIS

The data from classroom observations, teacher interviews, were thoroughly reviewed and organized. Interview in written were transcribed into text, observation notes were sorted by classroom and date according to emotional and social experiences at school. A thematic analysis approach is used, similar ideas have been grouped in categories and then building them into main themes (Braun and Clarke ,2023). Patterns were noted within individual classrooms and compared across the different primary school cases to understand common behavioral traits in Gen Alpha students.

The main themes that emerged are described below in simple terms:

4.1. Challenges in Classroom Management and Student Engagement

Teachers face ongoing difficulties in keeping students attentive and involved, mainly because of varied attention spans, high energy levels, and diverse individual needs among Gen Alpha children. Many students have shorter focus periods, burst with energy, and show rapid emotional shifts. When students disengage or act out, it often points to underlying needs, like seeking attention, feeling tired, confused, or emotionally overwhelmed.

A teacher quoted "students show disengagement when they are emotionally drained there can be multiple factors resulting in disorganized behavioral manifestations feeling confused unprotected or maybe not having a good night sleep can contribute to all this".

On the positive side, students usually interact well during group work or free activities, enjoying sharing ideas and solving problems together. Their motivation is highest when lessons link to real-life situations or involve hands-on tasks. Practical, relatable activities spark enthusiasm and active participation. Observations and children's drawings reinforced these points, with pictures often showing joy in group settings but also frustration during boring or unsupported moments.

"During group work students engage themselves are the most productive want to own ownership and head task. They like helping each other and finishing their task".

4.2. Effective Teacher Strategies for Addressing Behavioral Issues

Teachers highlighted the value of a personalized approach when dealing with repeated behaviors. They make efforts to identify what possibly are the root causes for each child and modify their techniques to adapt their responses, giving more attention, making clear and simple instructions, and support to stay on task for completion.

"Often when students demonstrate that they are feeling frustrated or bored, their body language start showing signs of disengagement disconnection, this is when they need more attention and that too individual, addressing to the specific student according to the need, to help the individual balance its emotions".

Creating a positive and focused classroom must include setting clear expectations, give continuous encouragement, and appreciate even the smallest achievements. Positive reinforcement helps foster a supportive learning environment.

"Children today are more tech savvy and have more confidence in expressing their opinions. They are not interested in traditional style of learning and need extra support".

These flexible and understanding methods proved effective across the classrooms studied.

4.3. Changing Effectiveness of Traditional Strategies

Strict discipline rules rigid routines are not for Gen Alpha students. Teachers have observed that digital natives respond better to more flexible and personalized approaches, which are inculcated with differentiated learning styles and external factors matter the most like technology exposure.

"Strategies which worked earlier are more effective such as punishment, constant lecturing, ignoring emotional needs".

This need for adaptation was a strong narrative in interviews, as teachers reflected on what worked in the past is no more effective.

"In past I could use more traditional methods like strict routines or silent reading periods but that's not how I can expect my grade five students to do today. If I will not engage them the way they feel excited or personal they will lose interest and give up really easily without making any efforts to stay on task".

4.4. Distinctive Behavioral Characteristics of Generation Alpha

The alpha students are distinctive for their early familiarity technological use; it shapes their personalities overwhelmingly obvious in their attitudes and behaviors in unique ways that can sometimes be difficult and challenging to understand. They are emotionally complex and often need additional guidance to address their social and emotional skills.

"Gen alpha is growing up in a fast-paced digital environment which shapes them to be curious but also sensitive to attention."

External influences include screen time at home and most importantly family dynamics, which have significantly affected their attention spans, emotions, and classroom behavior. Use of extra technology, home-related stress contributes to distraction, emotional dysregulation, difficulty in staying focused.

"The family dynamics are shown in their behavior in the classroom. Technology use at home effect their focus, sleep deprivation shows dysfunctional emotions".

The themes offer a deeper view into Gen Alpha behaviors in primary classrooms, emphasizing the role of emotional support, real-world connections, and flexibility in promoting positive engagement and well-being. The results connect to existing knowledge on child development, highlighting the unique traits shaped by digital exposure in this generation.

5.CONCLUSION

This study looked at how Generation Alpha kids act in elementary school. They are the first real "digital natives," meaning they've grown up completely surrounded by technology. Because of this, they see the world differently. They bring new strengths but also new challenges to the classroom. We found that these kids have mixed qualities. On one hand, they are very creative, good with visual information, and can solve problems together. On the other hand, it's hard for them to focus on one thing for a long time. They expect quick answers and rewards, and they can find it awkward to talk to people face-to-face. What gets them interested in a lesson depends a lot on the lesson itself. If it feels relevant to their lives, if they can use their hands, or if it involves technology, they are much more likely to get involved. Old-fashioned teaching, where the teacher just talks and everyone has to do the same thing, often doesn't work for them. It can actually make them feel frustrated and check out.

Teacher's today is trying to figure out how to handle all these different behaviors. It becomes challenging a lot of time to understand as the way a kid acts is connected to bigger things like feeling overwhelmed by too much information, having big emotions they don't know how to control, issues at home, or just being used to the tech savvy fast pace of the digital world. Today's primary classrooms need to change; they can no longer be fixed traditional places where teachers just pass down information. Instead, they must become more like living, energetic adaptable spaces such places that respond to the students inside them. The best way to teach Gen Alpha isn't to fight and react to how they act, but to see their behavior as highlighters of their learning pathways. It shows us what they need and how they think. We will have to understand that we can always adjust and recreate older traditional methods into new innovative methods to cater to the demands of gen Alpha learning.

Recommendations

It is recommended to combine Tech and Hands-On Learning: Use digital tools along with activities kids can touch and group work. For example, use a learning app for practice, but also have students discuss what they learned or build a related project together. This helps them get better with technology while also building social skills collaboration socially with integrated technology. Also to organize learning into smaller parts. step by step learning. This will address the gen alpha behavioral issues as they find larger or more time-consuming task consuming and overloaded. Set clear objectives to achieve desired goals. Give feedback right away. Adding rewards like badges or progress charts keeps them motivated and fits how they like to learn. Teachers need support for professional development (Munson, 2024) Teachers must be enrolled in continuous Professional development with focus on recognizing Gen Alpha behavioral patterns and help navigate teaching and learning techniques. Such workshops must focus on how to implement differentiated instructional strategies and effectively integrate Social-Emotional Learning (SEL) into academic curricula. Training must be practical, not just theoretical. The path to guiding Generation Alpha towards realizing their full potential is not in resisting their digital nativity, but helping build a bridge connecting the fast-paced, interactive, digital world they live in. It should be connected with deep thinking, emotional connection, progressive collaboration, with curiosity driven exploration essential for human development at all levels. if we want to nurture future contributors who are not only technologically mastered but also wise, empathetic, and resilient.

REFERENCES:

1. Anderson, S., & Bauml, M. (2026). "Just Be Careful": Exploring Middle School Students' Views About Generative AI. RMLE Online, 49(1), 1-19.
2. Bandara, N., Chathurika, R., & Katukurunda, K. G. W. K. (2024). An Overview of Teaching Methods for Fostering Generation Alpha (Gen Alpha) Learning Process. International Journal of Research Publication and Reviews (IJRPR).
3. Braun, V., & Clarke, V. (2023). Toward good practice in thematic analysis: Avoiding common problems and be (com) ing a knowing researcher. International journal of transgender health, 24(1), 1-6.

4. Chand, S. P. (2025). Methods of data collection in qualitative research: Interviews, focus groups, observations, and document analysis. Advances in Educational Research and Evaluation, 6(1), 303-317.

5. de Bruijn, A. G., Ehren, M. C., Meeter, M., & Kortekaas-Rijlaarsdam, A. F. (2025, February). School and student characteristics related to primary and secondary school students' social–emotional functioning.

6. In Frontiers in Education (Vol. 10, p. 1514895). Frontiers Media SA.

7. dos Reis, T. A. (2018). Study on the alpha generation and the reflections of its behavior in the organizational environment. Journal of research in humanities and social science, 6(1), 9-19.

8. El-Shihy, D. (2026). A Mixed-Methods Study of Social Media Addiction in Egyptian Gen Z: Psychological, Educational, and Academic Consequences and Intervention Pathways. Journal of Research in Social Sciences and Language.

9. Galea, E., & Sayer, O. (2025). Generation Alpha in the Classroom: new approaches to learning. Oxford University Press.

10. Gourneau, B. (2025, March). Teaching the Alpha Generation in Elementary Schools: Gaining Insight into Their Worlds. In Society for Information Technology & Teacher Education International Conference (pp. 2158-2168). Association for the Advancement of Computing in Education (AACE).

11. Hatfield, J. L. (2025). From chalkboard to smartboard: an exploratory study of experienced teachers' perspectives on student generations X, Y, Z and Alpha. Education and Information Technologies, 1-53

12. Jin, H., & Rui, Y. (2026). Gen AI Literacy and Acceptance Among EFL Teachers: An Exploration Through the UTAUT Model and Self-Determination Theory. European Journal of Education, 61(1), e70364.

13. Keengwe, J. (2018). Globalization, digital technology, and teacher education in the United States. In Oxford Research Encyclopedia of Education.

14. Kirschner, P. A., & De Bruyckere, P. (2017). The myths of the digital native and the multitasker. Teaching and Teacher Education, 67(67), 135–142. https://doi.org/10.1016/j.tate.2017.06.001

   Krammer, M., Paleczek, L., & Reitegger, F. (2026). School context matters! The impact of school tracking and classroom factors on the behavioural development of 5th and 6th graders in Austria. Journal of Research in Special Educational Needs, 26(1), e70044.

15. McCrindle, M., & Fell. A. (2020). Understanding Generation Alpha. McCrindle Research. (2020). Sciepub.com. https://www.sciepub.com/reference/462361

16. Mezouari, M., & Hemida, Z. (2026). Differences in Some Emotional Characteristics Among Fourth-Grade Students with Academic Learning Difficulties in Reading and Writing (A Field Study in Some Primary Schools in Medea Governorate). الأسرة والمجتمع, 13(2), 161-180.

17. Munson, O. (2024, April 23). What years are Generation Alpha? Meet the mini millennials. USA TODAY. https://www.usatoday.com/story/news/2024/04/23/what-years-are-gen-alpha/73261058007

18. Mwita, K. (2022). Factors influencing data saturation in qualitative studies. Available at SSRN 4889752.

19. Montanucci, G. (2025). Generation Alpha in the Classroom. New Approaches to Learning. NEW PERSPECTIVES, 3(1), 101-103.

20. Odescalchi, C., Paleczek, L., & Gasteiger-Klicpera, B. (2025). Primary school teachers have social-emotional competencies and strategies in fostering the social participation of students with SEBD. European Journal of Special Needs Education, 40(2), 393-407.

21. Piepiora, P., Brojanowska, A., & Vveinhardt, J. (2025). Polish pupils from the Alpha generation and their lifestyle. Journal of Education, Health and Sport, 80, 60014-60014.

22. Prensky, M. (2001). Digital natives, digital immigrants part 2: Do they really think differently? On the horizon, 9(6), 1-6.

23. R Lad, D. (2024). Raising generation alpha: a narrative review.

24. Rostami, S., Endresen-Maharaj, K., & Ghanizadeh, A. (2026). Students' Perception of Teachers' Democratic Behaviours Scale (TDBS): Construction and Assessment of Psychometric Properties. European Journal of Education, 61(1), e70388.

25. Sawan, M. (2025). The Cognitive and Psychological Consequences of Constant Digital Content Exposure in Generation Z and Generation Alpha: A Review of Current Literature.

26. Shera, S. (2026). The Mediating Effect of Motivation Between Academic Self-Concept, School Connectedness, and College and Career Readiness for Students With/At-Risk for Emotional and Behavioral Disorders (Doctoral dissertation, Lehigh University).

27. Swargiary, K. (2024). The impact of digital learning environments on cognitive, social, and emotional development in Generation Alpha children: A comparative analysis. Social and Emotional Development in Generation Alpha Children: A Comparative Analysis (July 01, 2024).

28. Thai, C. A., Hien, H. T., & Phan, Q. H. (2026). Determinants of AI Use among Gen-Z Students: Evidence from Ho Chi Minh City, Vietnam. Journal of Cultural Analysis and Social Change, 1677-1688.

29. Weber, S., & Lynch, S. (2026). Interpersonal violence, emotion regulation, and trauma-coping self-efficacy as predictors of posttraumatic stress disorder, substance use, and risk engagement among women in jail. Journal of Interpersonal Violence, 41(1-2), 26-47.

30. Zhu, Y., Xiang, X., & Plowright, P. (2026). Validation of the Chinese version of the submissive behavior scale in adolescents. Current Psychology, 45(2), 194.