

Familial Variables in the Era of Digitalization: Implications for Academic Performance, Self-Esteem, and Social Mobility Aspirations of Senior High School Students

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Abstract

The era of digitalization has transformed educational practices by reshaping how students learn, communicate, and access educational resources, while simultaneously influencing the role of families in supporting academic development. This study explored how familial variables influence the academic performance, self-esteem, and social mobility aspirations of senior high school students in the era of digitalization. A qualitative interpretive descriptive research design was employed involving 20 purposively selected senior high school students from public and private secondary schools. Data were collected through semi-structured interviews and analyzed using reflexive thematic analysis. The findings generated six major themes: Emotional and Academic Support as Foundations of Student Success, Family Guidance Strengthens Confidence and Learning Responsibility, Digitalization Expanded Family Involvement in Learning, Digital Challenges Influenced Family Support, Strengthening School–Family Collaboration, and Promoting Equal Digital Opportunities for Future Success. Participants emphasized that emotional encouragement, parental guidance, and active family involvement positively influenced their academic performance, self-esteem, and aspirations for upward social mobility. While digitalization expanded opportunities for family engagement and educational support, participants also identified challenges related to unequal access to digital resources and technological infrastructure. The study concludes that strong family support, combined with equitable digital opportunities and collaborative school–family partnerships, plays a critical role in fostering students' academic achievement, psychological well-being, and future aspirations. The findings provide practical implications for educators, families, and policymakers in designing family-centered educational programs and digital learning initiatives that promote inclusive, equitable, and sustainable student development in the era of digitalization...

Keywords familial variables, digitalization, academic performance, self-esteem, social mobility aspirations, senior high school students

INTRODUCTION

Familial variables have long been recognized as significant influences on students' academic development, psychological well-being, and future aspirations. Family support, parental involvement, socioeconomic conditions, communication patterns, and the home learning environment contribute substantially to students' motivation, self-esteem, academic engagement, and educational achievement. Supportive family relationships foster emotional security, resilience, and confidence, enabling students to overcome academic challenges and pursue long-term educational goals. As educational systems continue to evolve alongside technological advancement, the influence of familial variables extends beyond traditional educational support to include guidance in navigating digitally mediated learning environments (Epstein, 2018; Bronfenbrenner & Morris, 2006; OECD, 2023).

The rapid expansion of digitalization has transformed how students access information, communicate, collaborate, and participate in educational activities. Digital technologies, online learning platforms, educational applications, and internet-based resources have become integral components of contemporary education, creating new opportunities for learning while also presenting challenges related to digital access, parental supervision, and learner engagement. In this evolving educational landscape, families increasingly play an important role in supporting students' responsible use of technology, digital learning habits, and academic persistence. Consequently, digitalization has expanded the responsibilities of families in fostering both academic success and psychosocial development (UNESCO, 2023; van Laar et al., 2020; Redecker, 2017).

Academic performance and self-esteem remain closely interconnected during adolescence, particularly among senior high school students preparing for higher education or future employment. Students who receive consistent emotional, academic, and motivational support from their families often demonstrate stronger academic engagement, greater confidence, and higher educational aspirations. Likewise, positive self-esteem contributes to improved academic persistence, decision-making, and resilience despite educational challenges. Within digitally enriched learning environments, these outcomes are further influenced by students' ability to adapt to technology-supported learning while receiving adequate family encouragement and guidance (Orth & Robins, 2014; Zimmerman, 2008).

Social mobility aspirations represent students' expectations of achieving improved educational, occupational, and socioeconomic opportunities through academic success. In the era of digitalization, educational achievement increasingly depends on students' access to digital resources, technological competencies, and supportive family environments that encourage lifelong learning. Families that actively support digital learning, educational planning, and career preparation help students develop aspirations that extend beyond immediate academic achievement toward long-term personal and professional success. Consequently, digitalization has become an important contextual factor influencing how familial support contributes to students' aspirations for upward social mobility (World Economic Forum, 2025; OECD, 2023).

Despite growing research on family support, academic achievement, self-esteem, and digital learning, limited qualitative studies have explored how familial variables influence these interconnected experiences from the perspectives of senior high school students within the context of digitalization. Previous investigations have primarily examined family support and academic outcomes independently or have focused on technology adoption without fully considering how digitalization shapes family involvement, students' self-esteem, and aspirations for future social mobility. Understanding students' lived experiences is essential for developing educational policies and family-centered interventions that strengthen both academic success and psychosocial development in digitally evolving learning environments.

Addressing this gap, the present study explores how familial variables influence the academic performance, self-esteem, and social mobility aspirations of senior high school students in the era of digitalization. The findings are expected to contribute to the development of family-centered educational programs, digital learning support initiatives, and institutional policies that strengthen collaboration between schools and families while promoting students' academic success, psychological well-being, and aspirations for lifelong educational and socioeconomic advancement.

METHODS

Research Design

This study employed a qualitative interpretive descriptive research design to explore how familial variables influence the academic performance, self-esteem, and social mobility aspirations of senior high school students in the era of digitalization. Interpretive description was selected because it facilitates an in-depth understanding of participants' lived experiences and perceptions while generating findings that are applicable to educational practice and policy. The design enabled the researchers to examine how family-related experiences and digital learning environments collectively shape students' academic and psychosocial development within contemporary educational settings (Thorne, 2016).

Participants and Sampling

The study involved 20 purposively selected senior high school students enrolled in public and private secondary schools. Participants represented diverse academic strands and backgrounds to capture a wide range of perspectives on how familial variables influence their academic performance, self-esteem, and social mobility aspirations in the era of digitalization. The inclusion criteria required participants to (1) be currently enrolled as senior high school students, (2) actively engage in digitally supported learning activities, (3) possess relevant experiences regarding family support, academic performance, self-esteem, and future aspirations, and (4) voluntarily agree to participate in the study. Purposive sampling was employed to ensure that participants could provide rich, relevant, and information-rich insights aligned with the research objective (Palinkas et al., 2015).

Instrument

Data were gathered using a researcher-developed semi-structured interview guide consisting of three open-ended questions based on the study objective. The interview questions explored participants' experiences regarding the influence of familial variables on their academic performance and self-esteem, the role of digitalization in shaping family support and educational experiences, and their recommendations for strengthening students' academic success and aspirations for social mobility. Follow-up questions were asked whenever necessary to encourage participants to elaborate on their responses and provide richer descriptions of their experiences.

Table 1. Interview Guide Questions

Research Objective	Interview Question
To explore how familial variables influence the academic performance, self-esteem, and social mobility aspirations of senior high school students in the era of digitalization.	How do your family experiences and support influence your academic performance and self-esteem while learning in the era of digitalization? In what ways has digitalization (such as online learning, digital technologies, and internet access) affected the role of your family in supporting your education and future aspirations? Based on your experiences, what recommendations can you provide to help families and schools strengthen students' academic performance, self-esteem, and social mobility aspirations in the era of digitalization?

Data Gathering Procedure

Prior to data collection, participants were informed about the purpose of the study, confidentiality measures, voluntary participation, and their right to withdraw at any stage without penalty. Written informed consent was obtained from all participants, and when necessary, parental consent was secured in accordance with institutional ethical guidelines for research involving minors. Individual interviews were conducted either face-to-face or through secure online communication platforms, depending on participants' availability. Each interview lasted approximately 30 to 45 minutes and was audio-recorded with participants' permission. The recordings were transcribed verbatim, reviewed for accuracy, and anonymized by assigning participant codes to maintain confidentiality.

Data Analysis

The collected data were analyzed using reflexive thematic analysis following the six-step analytical framework developed by Braun and Clarke (2021): (1) familiarization with the data, (2) generating initial codes, (3) constructing themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the final report. This analytical process enabled the researchers to identify recurring patterns and meaningful themes that reflected participants' experiences regarding familial variables, digitalization, academic performance, self-esteem, and social mobility aspirations. Themes were continuously refined to ensure that they accurately represented participants' perspectives and remained grounded in the interview data.

Ethical Considerations

The study adhered to established ethical principles governing qualitative research. Participation was voluntary, and all participants provided informed consent before the interviews. They were informed of the study's purpose, their right to withdraw at any stage without penalty, and the measures implemented to ensure confidentiality and anonymity. All interview data were securely stored and used solely for academic and research purposes in accordance with institutional ethical standards.

RESULTS

Research Objective. To explore how familial variables influence the academic performance, self-esteem, and social mobility aspirations of senior high school students in the era of digitalization.

Interview Question 1. How do your family experiences and support influence your academic performance and self-esteem while learning in the era of digitalization?

Theme 1. Emotional and Academic Support as Foundations of Student Success

Nine participants consistently described their families as their primary source of emotional encouragement and academic motivation. They shared that parental guidance, positive communication, and continuous encouragement strengthened their confidence, improved their academic engagement, and motivated them to perform well despite the demands of digitally supported learning. Participants emphasized that knowing their families believed in their abilities increased their self-esteem and inspired them to persevere during academic challenges.

"My parents always encourage me to do my best, especially during online classes. Their support motivates me to study harder." (Participant 2)

"Whenever I feel stressed with school requirements, my family reminds me that they believe in me, which helps me regain my confidence." (Participant 6)

These responses suggest that emotional and academic support from families strengthens both students' academic performance and their psychological well-being.

Theme 2. Family Guidance Strengthens Confidence and Learning Responsibility

11 participants explained that family involvement extends beyond providing academic assistance by teaching discipline, responsibility, and effective study habits. Parents and guardians encouraged them to manage their time wisely, balance digital learning activities, and remain focused on their educational goals. Participants believed that these forms of guidance contributed to higher self-esteem by helping them become more independent and responsible learners.

"My parents remind me to finish my schoolwork before using social media, which helps me stay disciplined." (Participant 8)

"Their guidance taught me to become responsible for my own learning, especially when studying online." (Participant 9)

The findings indicate that consistent family guidance enhances students' confidence while promoting responsible learning behaviors in digitally supported education.

Interview Question 2. In what ways has digitalization (such as online learning, digital technologies, and internet access) affected the role of your family in supporting your education and future aspirations?

Theme 1. Digitalization Expanded Family Involvement in Learning

12 participants shared that digitalization increased family participation in their educational experiences. Parents became more involved in monitoring academic progress, assisting with online learning, providing access to digital resources, and encouraging responsible technology use. Participants explained that digital communication platforms enabled parents to maintain closer communication with teachers and remain informed about school activities.

"My parents regularly check my online assignments and remind me about deadlines." (Participant 11)

"Digital communication made it easier for my family to know what is happening in school." (Participant 12)

These findings demonstrate that digitalization has strengthened family engagement by creating more opportunities for communication, monitoring, and educational support.

Theme 2. Digital Challenges Influenced Family Support

Eight participants also described challenges related to unstable internet connectivity, limited access to digital devices, financial constraints, and distractions associated with technology. Some participants explained that their families made significant sacrifices to provide internet access and learning devices, while others acknowledged that limited resources sometimes affected their academic performance and learning experiences.

"There were times when we shared one device at home, so we had to adjust our schedules." (Participant 10)

"My parents worked hard to provide internet access because they believed education remained important." (Participant 14)

These responses suggest that while digitalization creates educational opportunities, socioeconomic and technological challenges continue to influence the level of family support available to students.

Interview Question 3. Based on your experiences, what recommendations can you provide to help families and schools strengthen students' academic performance, self-esteem, and social mobility aspirations in the era of digitalization?

Theme 1. Strengthening School–Family Collaboration

14 participants recommended stronger partnerships between schools and families to support students' academic and personal development. They emphasized the importance of regular communication, parental involvement programs, digital literacy seminars, and collaborative activities that help families understand students' educational needs within digitally supported learning environments.

"Schools should organize seminars that teach parents how they can better support their children's digital learning." (Participant 4)

"Teachers and parents should communicate more often so students receive consistent guidance." (Participant 5)

The findings indicate that collaborative relationships between schools and families contribute to more supportive educational environments and improved student outcomes.

Theme 2. Promoting Equal Digital Opportunities for Future Success

Six participants recommended improving access to digital technologies, internet connectivity, educational resources, and career guidance programs to help students achieve their academic goals and future aspirations. They emphasized that equitable access to digital learning opportunities would increase students' confidence, improve academic performance, and strengthen their aspirations for higher education and future employment.

"Every student should have access to reliable internet and digital learning resources." (Participant 1)

"Schools should prepare students for future careers by improving digital skills and providing more learning opportunities." (Participant 3)

These findings suggest that promoting equitable digital access and strengthening family-school support systems can enhance students' academic performance, self-esteem, and aspirations for upward social mobility in the era of digitalization.

DISCUSSION

The findings revealed that emotional and academic support provided by families serves as a fundamental influence on students' academic performance and self-esteem in the era of digitalization. Participants consistently described their families as primary sources of encouragement, motivation, and emotional stability, enabling them to cope with academic demands while adapting to technology-supported learning environments. Family support enhanced students' confidence, persistence, and willingness to overcome educational challenges, particularly in digitally mediated learning contexts. These findings are consistent with Bronfenbrenner and Morris (2006), who emphasized that family remains the most immediate environment influencing adolescents' cognitive, emotional, and social development. Similarly, Epstein (2018) argued that meaningful family involvement strengthens students' academic engagement and educational success through continuous communication and shared responsibility between home and school. The present study extends these perspectives by demonstrating that familial support remains a critical protective factor that reinforces students' self-esteem and academic resilience despite the changing demands of digital education.

Another important finding highlighted that family guidance strengthens confidence and learning responsibility, while digitalization has expanded family involvement in education. Participants explained that parents increasingly assist with monitoring online learning, encouraging responsible technology use, and guiding students in managing academic responsibilities. Digital communication platforms have also enabled families to maintain stronger connections with teachers and educational institutions, resulting in greater involvement in students' learning experiences. These findings support UNESCO (2023), which emphasized that technology has transformed family participation in education by creating new opportunities for communication, learning support, and educational engagement. Likewise, Redecker (2017) noted that digital competence extends beyond learners and educators, requiring families to actively participate in developing responsible digital learning practices. Furthermore, van Laar et al. (2020) explained that digital competence includes critical thinking, collaboration, communication, and self-management, competencies that are strengthened when families actively support students' learning. The present findings therefore suggest that digitalization has not diminished the role of families but has instead expanded their responsibilities in promoting academic success and psychosocial development.

The study further revealed that although digitalization offers significant educational opportunities, digital challenges continue to influence the extent of family support available to students. Participants identified unstable internet connectivity, limited access to digital devices, financial constraints, and digital distractions as barriers that sometimes affected their academic performance and learning experiences. Despite these challenges, many families demonstrated resilience by making financial sacrifices and adapting household routines to support students' education. These findings align with OECD (2023), which emphasized that equitable access to digital technologies and supportive home learning environments are essential for reducing educational inequalities in increasingly digital educational systems. Similarly, the World Economic Forum (2025) highlighted that digital transformation requires students to develop technological competencies while ensuring that families and educational institutions provide equitable opportunities for learning and future employability. Supporting these perspectives, Livingstone and Helsper (2007) argued that parental mediation plays a critical role in helping young people navigate digital technologies safely and effectively while minimizing the potential risks associated with online environments. These findings indicate that successful digital education depends not only on technological availability but also on families' capacity to provide consistent support despite socioeconomic challenges. The findings also emphasized the importance of strengthening school–family collaboration and promoting equal digital opportunities to improve students' academic performance, self-esteem, and aspirations for social mobility. Participants recommended stronger communication between schools and families, digital literacy programs for parents, improved internet accessibility, and greater investment in educational technologies that support equitable learning opportunities. These findings support Orth and Robins (2014), who emphasized that positive self-esteem develops through supportive interpersonal relationships that reinforce students' confidence and academic motivation. Likewise, Zimmerman (2008) argued that supportive learning environments encourage self-regulated learning, enabling students to become more independent, motivated, and academically successful. Furthermore, Henderson and Mapp (2002) concluded that strong partnerships between schools and families significantly improve students' academic achievement, motivation, and long-term educational aspirations. Castro et al. (2015) further demonstrated through a meta-analysis that parental involvement positively influences students' academic achievement across educational settings, particularly when families actively participate in learning activities and maintain meaningful communication with schools. The present study extends previous research by demonstrating that effective collaboration between families and schools becomes increasingly important within digitally evolving educational environments, where both institutions share responsibility for supporting students' academic and personal development.

A significant contribution of this study lies in its examination of familial variables within the context of digitalization. Previous studies have generally examined family support, academic achievement, self-esteem, or digital learning independently. In contrast, the present findings demonstrate that these factors are interconnected, with digitalization reshaping how families provide educational support while simultaneously influencing students' confidence, academic engagement, and aspirations for upward social mobility. By highlighting students' lived experiences, this study contributes qualitative evidence that family support remains a central determinant of educational success despite the rapid digital transformation of contemporary learning environments.

Overall, the findings underscore that familial variables continue to play a vital role in shaping students' academic performance, self-esteem, and social mobility aspirations in the era of digitalization. Families that provide emotional encouragement, academic guidance, and support for responsible technology use enable students to adapt more effectively to digital learning while maintaining positive educational outcomes. As digital transformation continues to influence educational systems, schools and policymakers should strengthen family-centered educational programs, expand equitable access to digital resources, and promote collaborative partnerships that empower students to achieve academic success and pursue greater opportunities for future social mobility.

CONCLUSION

This study explored how familial variables influence the academic performance, self-esteem, and social mobility aspirations of senior high school students in the era of digitalization. The findings revealed that emotional and academic support, family guidance, expanded family involvement through digitalization, and collaborative relationships between families and schools significantly shape students' educational experiences and future

aspirations. Participants emphasized that supportive family environments strengthen academic engagement, enhance self-esteem, and encourage students to remain motivated despite the opportunities and challenges presented by digitally mediated learning.

The study further highlights that digitalization has transformed the role of families in education by increasing their participation in students' learning through digital communication, online learning support, and responsible technology guidance. However, the findings also indicate that unequal access to digital resources, internet connectivity, and technological devices continues to influence the extent to which families can effectively support students' academic development. These findings underscore the importance of promoting equitable digital access while strengthening family engagement to ensure that all students benefit from technology-enhanced learning opportunities.

Overall, the study contributes to the growing body of knowledge on family involvement and digital education by demonstrating that familial variables remain essential determinants of academic performance, self-esteem, and social mobility aspirations within contemporary educational environments. The findings provide practical implications for schools, families, and policymakers in designing family-centered educational programs, strengthening school-family partnerships, expanding digital learning support, and developing inclusive policies that empower senior high school students to achieve academic success and pursue greater educational and socioeconomic opportunities in the era of digitalization.

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