

Value Education and Emotional Intelligence: Building A Resilient Generation in the Digital Era to Achieve Sdgs

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Abstract

Objective: This study aims to analyze the integration of value-based education and emotional intelligence (EI) in shaping a resilient generation in the digital era to support sustainable education and the achievement of the SDGs. Theoretical framework: Based on the theory of emotional intelligence that emphasizes the management of emotions, empathy, and social skills, as well as the theory of value-based education that places moral character as the main focus of holistic education. Literature review: The literature shows the importance of integrating values and EI in improving students' learning motivation, selfefficacy, academic resilience, and emotional well-being, as well as the role of technology in supporting reflective and value-oriented education. Methods: Using a bibliometric literature analysis of 633 articles from the Scopus database published in 2022–2024 to map trends, key themes, and relationships between variables. Results: Five main clusters were found: the role of technology, sustainability policies, the transformation of educational institutions, teacher contribution and digital literacy, and character education in early childhood. EI has been shown to increase motivation, self-efficacy, academic resilience, and emotional well-being. **Implications:** There is a need for the development of a holistic education system that integrates values, EI, and empathy-based technologies to support the SDGs. Novelty: Develop a conceptual framework that integrates value education, emotional intelligence, and empathy-based technology in the modern education system to create more humane and reflective learning.

Keywords: value-based education, emotional intelligence, digital age, sustainability, sdgs.

INTRODUCTION

In the digital revolution, humanity faces unprecedented challenges that impact not only technological development but also the moral and emotional dimensions of life. The growing complexity of the digital era demands a generation that is not only intellectually competent but also emotionally resilient and ethically grounded. In this context, the integration of value education and emotional intelligence (EI) becomes central in shaping holistic individuals capable of contributing meaningfully to the Sustainable Development Goals (SDGs), particularly SDG 4 on quality education. Emotional intelligence, which includes the ability to perceive, understand, regulate, and express emotions, has been identified as a significant factor in academic success, leadership, and social well-being [1].

EI is not merely an individual trait but a critical life competency that supports mental health, conflict resolution, and adaptive behavior in diverse social settings.

Research conducted across multiple contexts confirms that emotional intelligence can be developed through intentional educational interventions. For instance, a longitudinal clinical trial in Greece demonstrated that educational programs could significantly enhance self-emotion appraisal, regulation, and use of emotions among healthcare professionals, thus promoting both personal well-being and professional competence [2]. Similarly, mentoring programs, particularly those involving peer interactions, have been shown to play a pivotal role in cultivating emotional intelligence in leaders within vocational education settings. These findings underscore that EI is not static but can be nurtured through socially embedded and value-driven approaches.

The importance of value education is equally critical in the development of character and social responsibility. Value education serves as a moral compass in times of ethical ambiguity, especially for the youth growing up with constant exposure to digital content that may lack ethical grounding [3]–[10]. According to Liang, interactive learning environments that engage students in reflection and emotional processing can significantly improve emotional intelligence compared to passive learning modes. In a study conducted in South Africa, value education delivered through sport-based interventions contributed to enhanced emotional skills and improved physical well-being among socioeconomically disadvantaged adolescents. These findings affirm that emotionally intelligent behavior can be developed through experiential and socially meaningful activities [11].

The intersection of value education and emotional intelligence is not only vital for personal development but also for achieving the broader aims of education for sustainable development. A study by Liang, emphasizes that integrating emotional intelligence into teaching practices creates emotionally safe and cognitively stimulating learning environments, fostering a generation of learners who are both critical thinkers and compassionate actors. This holistic approach aligns with the multidimensional nature of SDG 4, which calls for inclusive and equitable quality education and the promotion of lifelong learning opportunities for all. The University of Siena's initiative to integrate emotional intelligence into its sustainability and empathy-based programs serves as an example of best practice in implementing SDG 4.7, which emphasizes education for sustainable development and global citizenship [12].

Moreover, emotional intelligence has been empirically linked to improved academic performance through its influence on learning motivation and self-efficacy. A study in Shanghai found that while EI did not directly influence academic achievement, it played a crucial mediating role by enhancing motivation and belief in one's capabilities—factors essential for educational resilience in the digital era [13]. The digital age also calls for new pedagogical models that are responsive to learners' emotional and ethical development. Adopting technologies such as AI and virtual reality in a human-centered manner, as shown in. Research can help cultivate self-awareness and emotional sensitivity when guided by value-based frameworks [14] [15].

Integrating emotional intelligence in the educational process has also proven to be effective in enhancing critical thinking skills. A study on nursing students in Iran showed a significant correlation between EI and critical thinking, which are both essential in fostering reflective and ethical decision-making, particularly in high-pressure environments such as healthcare [16]. From an early age, the family unit also plays an irreplaceable role in nurturing emotional intelligence and instilling values. Research on parent-child relationships among preschoolers confirmed that emotionally supportive family environments significantly influence children's socio-emotional development and their future capacity for empathy and value alignment [17].

Furthermore, studies have shown that spiritual and emotional intelligence are closely related, and when cultivated together, they contribute to students' happiness, academic

success, and holistic well-being. In the context of higher education in India, spiritual intelligence has been positively correlated with emotional regulation and peace of mind, particularly among female students [18]. At a broader institutional level, educators themselves must embody and promote emotional intelligence. During the COVID-19 crisis, the mental well-being of university academics was directly affected by their emotional resilience. Strengthening EI among educators is thus crucial not only for their health but also for the well-being of their students and the attainment of SDG 3 [19].

In conclusion, value education and emotional intelligence are mutually reinforcing pillars that must be prioritized in education systems worldwide to ensure the emergence of a resilient, ethical, and emotionally intelligent generation. In doing so, we not only equip learners to navigate the digital era but also enable them to become active contributors to the Sustainable Development Goals, especially in the domains of education, well-being, equity, and peace. Based on the above introduction, the fundamental question this study seeks to answer is: How can the integration of value-based education and emotional intelligence shape a resilient generation in the digital era to support the achievement of the Sustainable Development Goals (SDGs), particularly SDG 4? This research aims to explore in depth the strategic role of value education and emotional intelligence within 21st-century education systems and to analyze how these two elements contribute to the development of student's character, resilience, and social competence amidst the challenges of digitalization and globalization. The findings of this study are expected to provide both conceptual and practical foundations for the development of education policies that are aligned with the goals of sustainable development.

LITERATURE REVIEW

Value-based education and emotional intelligence (EI) are two essential components of 21st-century education, particularly in addressing the challenges of the digital era and achieving the Sustainable Development Goals (SDGs), especially SDG 4 on quality education. In various academic literatures, two main aspects receive considerable attention: (1) the integration of values and emotional intelligence within the framework of sustainable education, and (2) the strategic role of education and parenting in adaptively fostering students' affective competencies. Existing literature suggests that the synergy between values and EI can strengthen personal resilience, academic engagement, and inclusive social contributions in digital society.

Integration of Values and Emotional Intelligence for Sustainable Development

Emotional intelligence (EI) significantly contributes to students' academic success, leadership, and psychological resilience. A study shows that the development of EI through mentoring approaches can enhance empathy, emotional awareness, and resilience all of which are critical in shaping adaptive and strong individuals. Strengthening EI has also been proven to increase motivation to pursue careers in education, particularly when driven by social and altruistic values [20]. Furthermore, both spiritual and emotional values are linked to happiness and academic achievement among university students, as demonstrated in research conducted in Indian higher education institutions. The findings suggest that spiritual intelligence and EI mutually reinforce each other in shaping individuals capable of coping with pressure and positively adapting to environmental changes, making this synergy highly relevant in the context of the SDGs.

In the context of higher education, emotional intelligence is considered a key factor in achieving SDG 3 on well-being. A study emphasizes that enhancing the EI of lecturers supports emotional well-being and mental health, which ultimately affects the quality of learning and sustainable educational outcomes. The integration of values and emotional intelligence has also been shown to support a positive school culture and the internalization of values. Another study reveals that collaboration between social activities and EI

encourages stronger peer connections, reinforces collective identity, and fosters values such as social responsibility and empathy all aligned with the principles of the SDGs [21], [22].

Liang's Study also showed that interactive technology-based learning can significantly enhance the development of emotional intelligence (EI) compared to static learning methods. This reinforces the idea that value-based education can be strengthened through innovative learning designs that engage students emotionally and cognitively [23].

The Role of Education and Parenting in Strengthening Values and Emotions

The role of educators and families in shaping children's emotional intelligence is crucial. In the context of family, research has found that the quality of the emotional relationship between parents and children strongly correlates with the emotional abilities of preschoolaged children. A harmonious family environment creates a psychologically conducive condition for the development of values and social sensitivity.

In the education sector, emotional intelligence has been proven to play an important role in enhancing critical thinking [24]. A study on nursing students in Iran showed a significant correlation between EI and critical thinking abilities, supporting ethical and reflective professional decision-making. This confirms that EI is not only intrapersonally important but also essential for forming a mature moral judgment. The strengthening of EI among adolescents is also a key focus in building resilience. A study combining mental education and sports for teenagers showed that value-based physical activity interventions were effective in developing personal endurance and positive attitudes [25].

The link between emotional intelligence and academic performance is also evidenced in a study that connected EI, compassion, and student engagement. The results indicated that students with high EI levels tend to have strong empathy and commitment, which directly improve learning outcomes [26]. At the institutional level, value education and EI should be integrated as a core part of the curriculum. This is reflected in the policy of the University of Siena, which incorporates SDG values through non-formal and transformational education based on empathy and EI. Such practices demonstrate that cross-sectoral approaches are essential to mainstream EI and values education in higher education.

Overall, the literature shows that integrating values and emotional intelligence not only strengthens students' character in the digital era but also contributes to achieving the Sustainable Development Goals (SDGs). Future education models must place values and emotions as core components of the educational system to build resilient, ethical generations capable of facing global challenges.

METHODOLOGY

This study reviewed various articles closely related to the topic: "Value Education and Emotional Intelligence in the Digital Era to Achieve SDGs." The articles used were drawn from internationally reputable sources indexed in the Scopus database, which served as the primary reference in this research. The main focus of this review was on understanding concepts, impacts, and patterns of development related to value education and emotional intelligence in the digital era, thus providing a systematic and focused foundation for analyzing the topic.

The researchers aimed to summarize previous studies to identify common threads in understanding how value education and emotional intelligence are developed and implemented within the context of global digital transformation. Figure 1 illustrates that this study began by searching for articles using the keyword "value education and emotional intelligence in the digital era" via the Scopus database from the period 2022–2024. This initial search identified 633 articles, which were then examined through the following stages: initial search, article selection, data processing using software tools, and thematic mapping.

Several strongly related articles were selected through the following procedure: Identification – Filtering and selecting articles relevant to the topic. Verification – Ensuring that the chosen articles were genuinely aligned with the issues discussed. This verification was done by limiting the scope to specific categories: field of study (social/education), document type (article), publication stage (final), and language (English). This process resulted in a collection of articles which were then analyzed to explore the interrelation between values, emotional intelligence, technology, and sustainability in education.

RESULTS AND DISCUSSION

Publication and Main Author

The article on the topic "Value Education and Emotional Intelligence: Building a Resilient Generation in the Digital Era to Achieve SDGs" highlights a growing trend in publications over recent years. Based on the data, there were 24 articles published in 2021, which increased to 27 articles in 2022. Although there was a slight decline to around 21 articles in 2023, the number of publications surged significantly in 2024, with more than 50 articles released. This sharp increase reflects the rising interest among researchers in the importance of integrating value education and emotional intelligence to shape a resilient generation in the digital age. Furthermore, this trend indicates that the topic is increasingly viewed as a strategic issue in supporting the global achievement of the Sustainable Development Goals (SDGs).

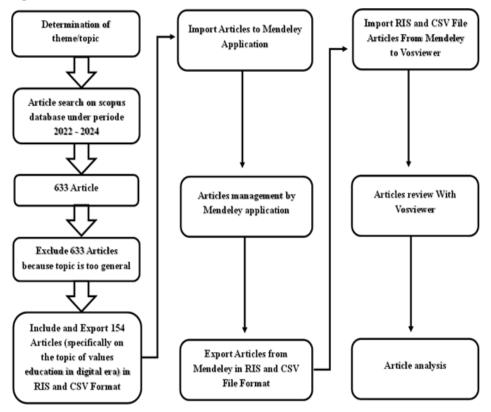


Figure 1. Article Selection and Analysis Workflow Using Mendeley and Vosviewer Tools.

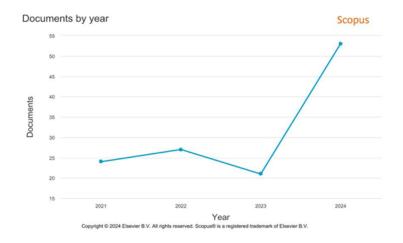


Figure 2. Number of Scopus-Indexed Documents by Year From 2021 To 2024.

Next, the top 10 authors with the highest number of publications related to the topic "Value Education and Emotional Intelligence: Building a Resilient Generation in the Digital Era to Achieve SDGs" are shown in the figure. The author with the most publications is Shafait, Z., with a total of more than three documents. He is followed by Anwar, S., Guo, K., Hui, Z., Liu, C., Ma, Q., Saraih, U.N., and Yao, S., each of whom has published two documents in this field. Meanwhile, AbdelFattah, K.R. and Abdelsalam, E. are noted to have one relevant publication each. This data illustrates the active contribution of these authors in enriching academic literature on the integration of value education and emotional intelligence within the context of sustainable development in the digital era.

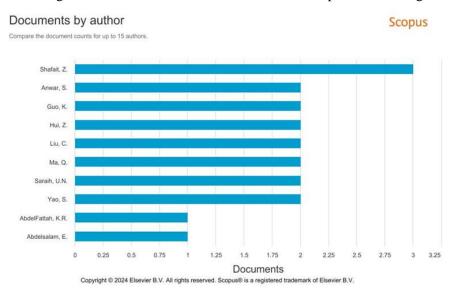


Figure 3. Data Analysis of Value Education and Emotional Intelligence Based on Clusters and Relationships Between Concepts in the Digital Era

As an effort to understand the contribution of value education and emotional intelligence in shaping a resilient generation in the digital era, the analysis of cluster data and relevant literature provides deep conceptual insights. The findings reveal that the core concepts in the development of values and emotional intelligence are inseparable from the context of technology, educational policy, the role of teachers, and the support of family and community environments. Together, these elements form a holistic educational approach that aligns closely with the overarching goals of sustainable development (SDGs).

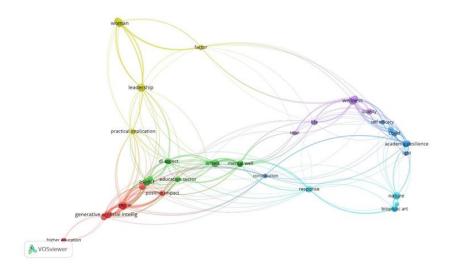


Figure 4. Keyword Co-Occurrence Network Visualization Generated Using Vosviewer Software

Konsep	Kluster	Total
Kluster 1	System, change, performance, algorithm, application, order, content, digital leadership, blockchain, education governance, physical education, mean value, score, difference, construction, point, college student.	17
Kluster 2	Strategy, program, integration, industry, society, opportunity, term, sustainability, policy, social medium, Indonesia.	11
Kluster 3	Country, factor, covid, digital transformation, stakeholder, higher education institution, world, online learning, intention, service, Malaysia.	10
Kluster 4	Teacher, experience, digital literacy, distance education, age, ability, career, difference, college student, correlation.	10
Kluster 5	Character education, medium, child, education governance, order, outcome.	6

Figure 5. Keyword Clustering Table Showing Thematic Groupings and Total Terms

The first cluster highlights the theme of technology, digital leadership, and education governance. Concepts such as digital leadership, systems, algorithms, and education governance suggest that technological advancement is no longer merely a supporting tool, but an integral part of value-based strategies in education. The study illustrates how the integration of AI in business education enhances students' self-awareness and emotional reflection through an empathy-based and human-centered AI approach. Meanwhile, the study, emphasizes that 21st-century leaders must possess strong emotional intelligence (EI) competencies to support ethical and adaptive leadership in a rapidly changing digital world. The second cluster encompasses the themes of policy strategy, sustainability, and social

integration. Keywords such as sustainability, policy, and integration indicate that value education and EI have become part of macro strategies to create an education system that is not only inclusive but also socially resilient. A study from the University of Siena shows how the SDGs, especially in the context of global education and citizenship, can be integrated through learning based on empathy and human values. In Indonesia, a holistic-integrative curriculum based on Sufism values as implemented at UNDAR Jombang demonstrates that spiritual values can synergize with the mission of sustainable education [27].

The third cluster underscores the importance of digital transformation and institutional adaptation in facing global crises such as the COVID-19 pandemic. Some studies indicate that while EI may not directly influence academic achievement, it plays a crucial role in shaping students' motivation and self-efficacy in online learning environments [28]. Similarly, the study reveals that strengthening EI among lecturers contributes to emotional resilience and improved well-being for academics, aligning with the spirit of the SDGs.

The fourth cluster focuses on the role of teachers and the importance of digital literacy in supporting value education and EI. Keywords such as teacher, digital literacy, and experience affirm the central role of teachers as facilitators of values and emotional guides for learners. The study emphasizes that teacher competence and creative performance act as mediators between EI and learning outcomes. This is reinforced by the findings which show that interactive, teacher-led instruction more effectively enhances EI development than static teaching methods [29].

The fifth cluster centers on character education for children and value inculcation in early childhood. Concepts such as character education, child, and outcome stress the importance of value-based interventions during early developmental stages. Study confirms that strong emotional bonds between parents and children significantly influence the emotional intelligence development of preschool-aged children. Additionally, sports-based interventions such as basketball programs, as examined are effective in promoting emotional resilience and motivation among adolescents from low socio-economic backgrounds [30].

Altogether, these clusters reinforce major educational and psychological theories. The approach aligns with Social Emotional Learning (SEL), Howard Gardner's Theory of Multiple Intelligences, and Bandura's Social Cognitive Theory, all of which emphasize that individual development must encompass cognitive, affective, and social dimensions [31], [32]. These theories serve as a crucial foundation in understanding that value education and emotional intelligence cannot be separated from the broader context of social, technological, and policy environments that support them.

Thus, the data and literature analyzed confirm that the integration of value education and emotional intelligence in the digital era is not merely a discourse but a strategic necessity in global education systems. Educational strategies that incorporate technology, values, empathy, and emotional well-being have proven effective in shaping a generation that is not only academically resilient but also morally and socially mature. This approach substantially supports the achievement of the Sustainable Development Goals (SDGs), particularly in building a sustainable, inclusive, and civilized society.

Dominant Themes in the Study of Value Education and Emotional Intelligence: Building a Resilient Generation in the Digital Era to Achieve SDGs

Based on data analysis using VOSviewer software, several dominant themes were identified that are closely linked to the strengthening of value education and the development of emotional intelligence (EI) in the context of the digital era. The identification of these themes serves to map key concepts most frequently discussed in prior literature, thereby making the direction of the review more focused, relevant, and contextual.

The data visualization, presented in the form of a heatmap, displays the distribution of themes using color gradients bright yellow indicates high-intensity themes, while green and blue denote less frequently occurring ones. These thematic categories not only illustrate academic trends but also help explain how interrelated concepts contribute to the formation of a sustainable value-based education system. From this mapping, several key concepts emerged as highly interconnected and central. Themes such as "mental well," "academic resilience," and "wellness" occupied the most intense areas, indicating that emotional wellbeing is a central focus in current value education development. The keyword "mental well" refers to the importance of establishing emotional stability and personal resilience as the foundation for character development. Research emphasizes that strengthening the emotional dimension in higher education not only supports academic achievement but also fosters psychological and social resilience in students [33]. Mental well-being is also closely tied to academic resilience, defined as students' ability to persevere, adapt, and thrive amidst academic and social pressures, particularly during crises such as the COVID-19 pandemic [34].

Another dominant concept is generative artificial intelligence (Gen AI), shown in bright yellow in the lower-left part of the visualization. This theme reflects a paradigm shift in digital learning, where technology is no longer just a tool but becomes a partner in value transmission. Research indicates that human-centered AI can enhance self-awareness and emotional engagement through empathetic and reflective learning scenarios. In this context, AI directly contributes to the development of emotional intelligence through adaptive and personalized learning experiences.

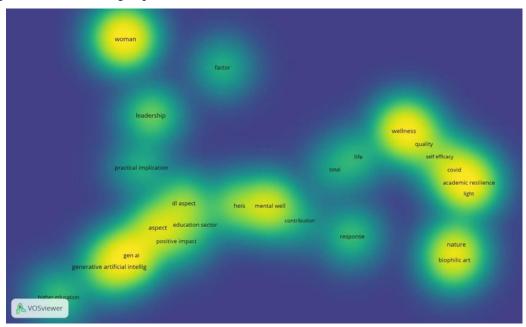


Figure 6. Keyword Density Visualization Generated Using Vosviewer Based on Term Frequency

Other significant keywords such as "HEIs" (higher education institutions), "education sector," and "DL aspect" (digital learning aspect) form an interconnected thematic cluster, emphasizing the role of educational institutions as primary spaces for integrating ethical and emotional values into digital-based curricula. This aligns with studies implementing SDG-oriented curricula through empathy, sustainability, and emotional engagement. In practice, digital learning goes beyond the use of media it encompasses ethical thinking and behavior in digital environments, consistent with global education values.

The visualization also highlights strong links between COVID, self-efficacy, and academic resilience, indicating the lasting impact of the pandemic on education systems

and underscoring the importance of value education and EI in fostering holistic student resilience. Under such conditions, the ability to regulate emotions, maintain motivation, and respond wisely to change becomes a critical success indicator not merely in terms of knowledge, but character development.

In addition to these major themes, supporting concepts such as "leadership," "woman," and "practical implication" reflect the inclusion of values like equality, gender representation, and the application of values in educational practice. The term "leadership" refers to the development of value- and emotion-based leadership, which is highly relevant to character building among both students and educators. Meanwhile, "woman" points to growing academic attention on the role of women in value education—as teachers, leaders, and key agents in shaping social character within educational institutions.

The intensity of color in the visualization not only shows frequency but also illustrates causal relationships between themes. For instance, the conceptual pathway from generative $AI \rightarrow DL$ aspect \rightarrow education sector \rightarrow mental well represents a logical sequence in which technology supports value-based and emotionally rich learning. Similarly, the path COVID \rightarrow academic resilience \rightarrow self-efficacy \rightarrow wellness demonstrates how crisis contexts have heightened the urgency of integrating emotional intelligence into online learning systems.

These themes are highly relevant for advancing research on value education in the digital age, especially in addressing how technology can be used to strengthen character and emotional intelligence development. For example, value education is no longer confined to abstract moral theory it can now be delivered through interactive technologies that facilitate participatory, reflective, and empathy-driven learning. Teacher digital literacy is also a key element in ensuring that values such as ethics, responsibility, and integrity are effectively conveyed through digital media.

This thematic mapping provides a clear direction for further research by identifying interrelated and impactful topics contributing to value-based and emotionally intelligent education. To ensure consistency in analysis results, researchers are advised to verify findings through triangulation methods, such as combining bibliometric analysis with indepth interviews or institutional case studies. In this way, the results are not only conceptual but also applicable and relevant to both theory and practice in today's rapidly evolving digital education landscape.

Publication Period of Articles in the Study of Value Education and Emotional Intelligence: Building a Resilient Generation in the Digital Era to Achieve SDGs

The analysis conducted using VOSviewer also produced a visual map that illustrates thematic relationships between concepts, as well as dynamic changes in trends based on the publication periods of keyword appearances in the literature. The visualization employs a color gradient from blue to yellow-yellow indicating topics that are currently emerging or dominant in recent publications, while blue represents older, less prominent topics. The purpose of this analysis is to identify how thematic directions are evolving within the study of Value Education and Emotional Intelligence in the Digital Era to Achieve SDGs, while also understanding the connections between concepts that support theoretical frameworks and the practical development of value-based education.

From the mapping, it is evident that themes such as mental well-being, academic resilience, wellness, and self-efficacy appear in bright yellow, indicating that emotional well-being and academic resilience have become focal points in recent publications. This reflects a shift in research focus from structural issues such as educational systems and institutional governance to more humanistic approaches emphasizing the affective dimensions of learners. This trend is supported by findings that reveal that emotional intelligence (EI) plays a vital role in enhancing self-efficacy and learning resilience, especially within the context of post-pandemic online education. Moreover, also

underscores the importance of EI in educational leadership, impacting not only the personal well-being of educators but also the overall quality of the learning environment [35], [36].

On the other hand, the concepts of generative artificial intelligence (GenAI), the digital learning aspect, and the education sector also occupy strategic positions with high levels of interconnectedness. This indicates that technology particularly GenAI is increasingly being utilized in value-based education and the enhancement of emotional intelligence (EI). A study demonstrates that human-centered AI not only improves learning efficiency but also encourages emotional reflection and self-awareness among learners, both of which are core components of value-based education. The strong linkage among keywords such as "gen AI \rightarrow positive impact \rightarrow education sector" suggests that the integration of advanced technologies can positively influence education systems when used ethically and reflectively [37].

Other key concepts such as leadership, women, and practical implication form a cluster focusing on social dimensions and gender equality in value-based education. Women's involvement and the strengthening of empathy-driven leadership are essential in implementing justice-oriented and participatory values in education, in line with the spirit of the Sustainable Development Goals (SDGs). In this context, peer mentoring emerges as an effective strategy for developing both leadership competencies and emotional intelligence among educators. Meanwhile, themes like nature, biophilic art, and light point to the emergence of eco-pedagogical and aesthetic approaches in education. These approaches emphasize the human—nature connection as a source of values and emotional tranquility. Research on biophilic digital art curation shows that exposure to nature-based art significantly enhances positive emotional responses, making it relevant for creating learning environments that support mental well-being [38]—[40].

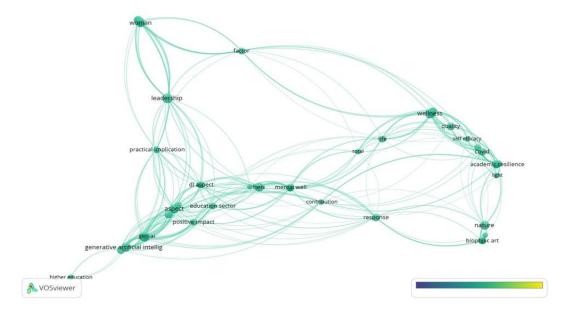


Figure 7. Overlay Visualization of Keyword Connections Using Vosviewer Software Tool.

The importance of theme interconnectivity is evident from conceptual pathways formed in the thematic network. For example, the pathway "COVID \rightarrow academic resilience \rightarrow self-efficacy \rightarrow wellness" reflects a causal relationship between global crises and the urgent need to develop emotional intelligence in education. This is reinforced by studies such as P. A. Aure and O. Cuenca and others, which confirm that the pandemic has prompted a reformulation of learning approaches to more deeply consider the emotional health and well-being of both educators and students. Conversely, the pathway "generative AI \rightarrow

digital learning aspect \rightarrow education sector \rightarrow mental well-being" shows that technology can serve as a strategic medium for value education and mental wellness when approached from an ethical and humanistic perspective.

Thus, this visualization highlights a paradigm shift from structural, system-oriented approaches to more holistic and affective models, aligning with the needs of 21st-century education. These findings are highly relevant for strengthening research directions that position values and emotional intelligence as foundational to education. The goal is not only to develop intellectually capable students but also to cultivate emotionally resilient and ethically grounded individuals who are prepared to face rapid societal changes. To ensure the validity and consistency of findings, researchers are encouraged to conduct data triangulation, combining bibliometric analysis with empirical data such as interviews or case studies within educational institutions. This mixed-method approach ensures that the analysis not only reflects the academic landscape but also offers a solid foundation for developing contextual and sustainable theory and practice in value-based education [38]–1401.

Co-Authorship Analysis

Using VOSviewer software, a co-authorship network visualization was created to analyze the collaborative patterns among authors who have published works related to Value Education and Emotional Intelligence in the Digital Era to Achieve SDGs. Each node in the visualization represents an individual author, and the connecting lines between nodes indicate collaboration in one or more publications. The thicker the line, the more frequent the collaboration. Likewise, the larger the node, the greater the author's contribution or involvement in the collaborative network. One author who occupies a central position in this co-authorship network is Z. Shafait, who is connected to several other researchers including S. Anwar, K. Guo, S. Yao, Q. Ma, and C. Liu. Shafait's central position indicates a key role in producing collaborative studies on emotional intelligence, higher education, and digital transformation within the framework of sustainable education. In one of his studies, Shafait and his team explore the relationships between emotional intelligence, motivation, and academic performance, reflecting a cross-variable, interdisciplinary approach to addressing 21st-century learning challenges.

This pattern of collaboration is also evident in other studies that examine digital strategies to foster empathy and self-reflection among students. For instance, research shows how Generative AI, when used collaboratively, can enhance learners' understanding of values and emotional balance in the learning process. Additionally, research highlights the significance of mentoring-based approaches to developing value-oriented leadership, cultivated through networks of collaboration between faculty and students across various higher education institutions. These co-authorship patterns not only reveal the intensity of academic productivity but also reflect the importance of collaborative approaches in addressing complex issues such as educational digitalization, mental well-being, and character development. Such collaboration facilitates the exchange of ideas across disciplines, resulting in more comprehensive and contextual research outputs. Moreover, the co-authorship visualization demonstrates that the study of value education and emotional intelligence is evolving within a highly interconnected academic ecosystem, moving dynamically across countries, institutions, and fields of study [38]–[40].

Analysis

The integration of value education and emotional intelligence (EI) in contemporary education represents a critical response to the complexities of the digital era. As this study demonstrates, value-based education is essential in nurturing students' moral character, while EI fosters emotional awareness, empathy, and adaptive behavior. Together, they provide a comprehensive framework for building a resilient generation prepared to contribute to sustainable development, especially SDG 4 (Quality Education). This study's

bibliometric analysis reveals five dominant clusters that reinforce the interdependence of values, emotional intelligence, and digital transformation. For example, the increasing role of technology in education is not only redefining learning delivery but also offering new avenues for character and emotional development through empathy-based AI, virtual reality, and interactive digital platforms. This affirms the importance of digital literacy among educators and students alike, highlighting SDG 9 (Industry, Innovation and Infrastructure) as a complementary goal.

From an Islamic educational perspective, this integration echoes the maqasid al-shariah (objectives of Islamic law), particularly the protection and nurturing of intellect (hifz al-aql) and soul (hifz al-nafs). Islamic values such as amanah (trustworthiness), rahmah (compassion), tazkiyah (spiritual purification), and akhlaq karimah (noble character) are naturally aligned with the core components of emotional intelligence. This highlights the relevance of traditional Islamic pedagogy in addressing modern educational challenges, suggesting that Islamic education institutions are well-positioned to lead in implementing value-EI integration. Furthermore, the analysis points to a growing academic emphasis on affective dimensions of learning. Terms such as "mental well-being," "academic resilience," and "self-efficacy" are central to recent literature, reflecting a paradigm shift from cognitive dominance to holistic development. Studies cited in the review confirm that EI correlates with critical thinking, motivation, and student engagement—qualities essential not only for academic performance but also for lifelong learning and ethical leadership, directly supporting SDG 16 (Peace, Justice, and Strong Institutions).

The paper also underscores the strategic role of families and educators in shaping emotional and moral capacities, consistent with the Islamic view that learning begins at home and is a lifelong obligation (talab al-'ilm faridah). This reinforces the urgency for collaborative models involving schools, families, and communities in fostering emotionally intelligent and ethically grounded youth. Moreover, the thematic visualization highlights gender inclusion and empathy-based leadership, aligning with SDG 5 (Gender Equality). It emphasizes the rising role of women as educators, emotional role models, and agents of value transmission, especially in early childhood education. In conclusion, value education and emotional intelligence are not only compatible but mutually reinforcing, especially when embedded within Islamic ethics and digital innovations. As the study confirms, their synergy is vital in cultivating a balanced generation—intellectually capable, emotionally resilient, spiritually conscious, and socially responsible—ready to advance the SDGs through ethical action in an increasingly digital world.

CONCLUSION

This study concludes that value education and emotional intelligence (EI) play a pivotal role in developing a resilient and socially responsible generation capable of facing the complexities of the digital era. Through a systematic literature analysis, it is evident that the integration of value-based education and EI is not merely complementary but essential to shaping students' character, social-emotional capacity, and adaptive abilities. These competencies are increasingly critical as the world becomes more interconnected, diverse, and technologically advanced. Moreover, such integration aligns directly with the goals of the Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), by promoting inclusive, equitable, and holistic educational practices. Incorporating emotional intelligence into value education fosters empathy, self-regulation, collaboration, and ethical decision-making—skills that are vital for personal well-being and social harmony. When taught using interactive, participatory, and technology-integrated approaches, these elements can effectively improve learners' emotional and interpersonal capabilities. The study emphasizes the importance of educational innovation, policy support, and culturally grounded strategies, particularly those rooted in Islamic education values, such as akhlaq (moral conduct), rahmah (compassion), amanah (trust), and shura (consultation). These principles resonate with the core of emotional intelligence and strengthen the moral

foundation of learners in both individual and communal contexts. From an Islamic perspective, education is not only about academic knowledge but also about nurturing the soul (tarbiyyah ruhiyyah) and character (tazkiyah an-nafs). Thus, integrating EI into value education supports the Islamic vision of insan kamil—a complete human being with balanced intellectual, emotional, and spiritual capacities. This vision is harmonized with the broader agenda of the SDGs, especially in building peaceful, just, and strong institutions (SDG 16), reducing inequalities (SDG 10), and ensuring mental health and well-being (SDG 3). Despite the promising insights, the study is limited by its reliance on literature sources without direct empirical validation. Future research should engage in field-based investigations to explore how these integrative strategies function across different educational settings, especially within Islamic institutions and multicultural environments. Empirical studies could also measure the long-term impact of EI-infused value education on student resilience, ethical behavior, and contribution to sustainable development. In summary, fostering emotional intelligence through value education rooted in Islamic and universal principles offers a transformative pathway toward achieving resilient, ethical, and globally aware generations in support of sustainable development.

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Author Contribution

All authors contributed equally to the conception, design, analysis, and writing of this manuscript, ensuring the integration of value education and emotional intelligence toward achieving the Sustainable Development Goals.

Conflicts of Interest

The authors declare no conflict of interest related to the research, authorship, or publication of this article on value education and emotional intelligence in the digital

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