

Integrating Sufism Learning and Emotional–Spiritual Intelligence to Support Education for Sustainable Development in Higher Education

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ABSTRACT

This study examines the integration of Sufism learning and Emotional–Spiritual Quotient (ESQ) to support Education for Sustainable Development (ESD) in Islamic higher education. ESD implementation in universities often emphasizes cognitive and behavioral outcomes, while the spiritual-affective dimension that shapes empathy, self-awareness, emotional regulation, and sustainable commitment remains underdeveloped. This study employed a concurrent embedded mixed methods design, with quantitative survey data as the primary strand and qualitative data as the supporting strand. A total of 230 students enrolled in Islamic Religious Education and Sufism Morals courses at five universities in West Java and Banten participated in the survey. The quantitative instrument was developed based on the 4Cs framework—Curriculum, Campus, Community, and Culture—and ESQ-related indicators. Qualitative data were collected through interviews, observations, and documentation, then integrated with survey findings through thematic triangulation and joint display analysis. The findings show that the overall achievement of the 4Cs was in the good category, with an average score of 3.79. Sufism learning strongly supported empathy, responsibility, spiritual awareness, lecturer role modelling, emotional regulation, and social care. However, the integration of sustainability issues into the curriculum, reflective-contemplative pedagogy, and green campus practices remained inconsistent. This study concludes that Sufism learning can function as a spiritual-affective lever for ESD when systematically connected to curriculum design, campus sustainability programs, community engagement, and academic culture.

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1. INTRODUCTION

The current era of globalization is characterized by VUCA conditions: volatility, uncertainty, complexity, and ambiguity, which gives rise to uncertainty in various aspects of life. This condition is exacerbated by the global ecological crisis due to unsustainable lifestyles, ranging from the exploitation

of natural resources, climate change, to ecosystem degradation (Besonia, 2024). In this context, education is the key to building collective consciousness so that humans are able to live in harmony with the planet, as well as preparing a generation that is intellectually intelligent, emotionally mature, and spiritually strong (da Silva Loureiro, 2022).

Universities have a strategic position because they play a role in producing future leaders who require moral integrity, personal resilience, and ecological awareness. The literature shows that the integration of value-based education with Education for Sustainable Development (ESD) is urgent to respond to global complexity (Madar, 2021). However, ESD practices on many campuses still tend to be technocratic: emphasizing the curriculum and academic skills, while the affective, ethical, and spiritual realms of students have not been adequately addressed. In fact, the transformation towards sustainability is not enough knowledge-based, but also requires deeper character and awareness.

In that framework, the learning of Sufism is relevant as an approach that fosters the inner dimension through the purification of the soul, self-control, awareness of the meaning of life, and harmonious relationships with God, others, and nature. Sufism values are intertwined with strengthening the Emotional-Spiritual Quotient (ESQ), especially in the aspects of self-awareness and social relations, emotional resilience, and transcendental awareness (Fasya, 2022). Theoretically, Sufism and ESQ provide the foundation for the reflexive-empathic character formation that ESD requires; practically, both can encourage consistency of pro-environmental and social responsibility actions in campus spaces, communities, and institutional cultures.

Although UNESCO emphasizes institutional transformation through the 4Cs (Curriculum, Campus, Community, Culture) pillars, previous ESD studies and practices have been relatively lacking in review of how the spiritual-affective dimension is systematically developed to strengthen the pillars of Culture and Community and ensure sustainability as a habit, not just a program. Various research on sustainable development in higher education has highlighted the integration of SDGs in curricula and MOOCs (Lorena, Ordóñez, & Rieß, 2019), lecturers' perceptions as well as institutional support (Hajdukiewicz, 2020), the development of UNESCO-based HESD operational models (Li, Liao, & Li, 2023), the mapping of learning variables from the perspective of professors, (Shah, Kennedy-clark, Xie, Rahim, & Mahdavi, 2022) to strengthening ESD competencies through interdisciplinary approaches and learning technologies (Lorena et al., 2019). However, the focus is still dominant on curriculum, competence, and institutional governance, so it has not adequately explained the inner "driving engines" that shape empathy, self-control, and consistency of sustainable behavior. This gap is answered by this study by integrating Sufism learning and Emotional-Spiritual Quotient (ESQ) as spiritual-affective mechanisms within the framework of the 4Cs. This study aims to analyze the contribution of Sufism learning in strengthening ESQ to support the implementation of ESD, through the following questions: (1) how Sufism strengthens students' ESQ, (2) how ESQ strengthens the achievement of the 4Cs, and (3) which aspects of the 4Cs are most influenced along with their key obstacles. Its novelty lies in the offer of a 4Cs-based integrative Sufism-ESQ-ESD model that expands ESD from a cognitive-instrumental approach to a more humanistic, spiritual, and transformative higher education policy.

2. METHODS

This study employed a mixed methods approach with a concurrent embedded design, in which quantitative data functioned as the primary strand and qualitative data functioned as a supporting strand. The design was selected because the study aimed primarily to measure students' perceptions of the contribution of Sufism learning to Emotional-Spiritual Quotient (ESQ) and Education for Sustainable Development (ESD) based on the 4Cs framework, namely Curriculum, Campus, Community, and Culture. At the same time, qualitative data were needed to explain, clarify, and contextualize the survey results by exploring how Sufism values were experienced in lectures, campus practices, community activities, and academic culture.

In this design, the quantitative strand was prioritized because it provided the main empirical basis for mapping the level of achievement of the 4Cs and identifying which dimensions were

perceived as strong, moderate, or in need of improvement. Quantitative data were collected through a closed-ended questionnaire distributed to 230 students enrolled in Islamic Religious Education and Sufism Morals courses at five universities in West Java and Banten. The questionnaire was developed based on the 4Cs framework and ESQ-related indicators, including empathy, self-awareness, emotional regulation, social responsibility, spiritual awareness, and concern for environmental sustainability. The survey results were analyzed descriptively by calculating the average score of each item and each 4Cs dimension, then interpreting the results using predetermined scoring criteria.

The qualitative strand was embedded within the quantitative design to provide explanatory depth. Qualitative data were collected through in-depth interviews, participatory observations, and documentation studies involving lecturers, students, study program leaders, department heads, and faculty leaders. These data were used to examine why certain survey items received high or low scores, how Sufism learning was implemented in classroom and campus contexts, and what obstacles were encountered in linking Sufism learning with ESD practices. Qualitative analysis was conducted using Miles and Huberman's interactive model, consisting of data reduction, data display, and conclusion drawing/verification. The validity of qualitative findings was strengthened through source triangulation and technique triangulation by comparing interview data, observation notes, and relevant institutional documents.

The integration of quantitative and qualitative data was conducted at the interpretation stage through thematic triangulation and joint display analysis. First, the quantitative results were grouped according to the four 4Cs dimensions. Second, qualitative evidence was mapped onto each quantitative finding to determine whether it confirmed, expanded, or corrected the survey results. For example, high survey scores on lecturer role modelling were examined alongside interview and observation data on lecturers' simple lifestyle, resource-saving behavior, and environmental care. Conversely, lower scores on the integration of Sufism learning with green campus practices were interpreted using qualitative evidence showing that sustainability programs had not been explicitly connected to Sufism values in several institutions.

Through this integration procedure, qualitative data did not stand as a separate source of findings, but functioned to deepen the interpretation of the quantitative results. Survey data identified the general pattern of students' perceptions, while interview, observation, and documentation data explained the contextual reasons behind those patterns. Therefore, the mixed methods design allowed this study not only to measure the perceived contribution of Sufism learning to ESQ and ESD, but also to understand the pedagogical, institutional, and cultural mechanisms through which such contribution occurred in higher education settings.

Table 1. Scoring Criteria

No	Score/Score Range	Criteria
1.	1.00 – 1.80	Not Good
2.	1.81 – 2.60	Not Good
3.	2.61 – 3.40	Enough
4.	3.41 – 4.20	Good
5.	4.21 – 5.00	Excellent

The integration of quantitative and qualitative findings is carried out through the embedding stage to map the contribution of Sufism learning in shaping students' ESQ and its implications for the implementation of ESD based on 4C (*Curriculum, Campus, Community, Culture*). The entire series of research is carried out through seven main steps, ranging from literature studies, instrument preparation, parallel data collection, quantitative and qualitative analysis, integration of results, to the preparation of recommendations and scientific dissemination. This comprehensive approach allows research to produce a deep, contextual, and evidence-based understanding of the role of Sufism in sustainability education in higher education.

Table 2. Joint Display of Quantitative and Qualitative Data Integration Based on the 4Cs Framework

4Cs Dimension	Quantitative Finding	Qualitative Evidence	Integrated Interpretation
Curriculum	Sufism material strongly supports empathy and spiritual awareness, but sustainability integration remains moderate.	Lecturers reported that environmental ethics is discussed, but not yet systematically embedded in the syllabus.	Sufism learning supports ESQ formation, but ESD integration in the curriculum is still partial.
Campus	Lecturer role modelling received the highest score, while green campus integration was lower.	Observations showed lecturers modelling simplicity and cleanliness, but green campus programs were not always linked to Sufism values.	Lecturer example strengthens ESQ, but institutional integration between Sufism and sustainability practices remains weak.
Community	Student participation in socio-religious and environmental activities was in the good category.	Documentation showed student involvement in community service, environmental education, and social activities.	Sufism values extend beyond classroom learning into community-oriented sustainability practices.
Culture	Emotional regulation and inclusive attitudes were rated highly.	Interviews indicated that students became calmer, more tolerant, and more socially caring after Sufism learning.	Sufism learning contributes to a spiritual, inclusive, and sustainability-oriented academic culture.

3. FINDINGS AND DISCUSSION

3.1 Findings

In the early stages of the research, the survey process was carried out manually using a printed-out questionnaire. The selection of this method was based on the results of an initial trial using Google Forms which showed a high level of incompleteness in filling, where many respondents did not fill in all statement items so that it could potentially reduce the validity and reliability of the data. By using a printed questionnaire, the researcher can ensure that each respondent fills in the instrument completely through direct assistance in the classroom, while minimizing missing data that often appears in online surveys. This manual survey was then applied to 230 students who took courses in Islamic Religious Education (PAI) and Sufism Morals at five universities, namely Universitas Singaperbangsa Karawang, STAI DR. KHEZ. Muttaqien Purwakarta, STAI Al-Badr Cipulus, Buana Perjuangan University, and Tangerang Raya University. The collection of data from these five institutions resulted in initial findings that became the basis for mapping students' perceptions, experiences, and achievements related to Sufism learning in instilling ESQ and supporting ESD practices in the campus environment.

Table 3. Survey Results

4C Pillar	Closed Inquiry Statement	Average Score	Criteria
Curriculum	The Sufism material in the PAI curriculum provides an understanding of the values of empathy, responsibility, and spiritual awareness as the basis for the formation of ESQ.	4.34	Excellent
	The Sufism learning curriculum contains sustainability issues such as environmental concerns, social ethics, and ecological awareness as part of religious values.	2.95	Enough
	The Sufism learning process encourages students to reflect on the meaning of life and its relationship with responsibility to the environment and society.	3.72	Good
	The Sufism teaching method (discussion, <i>tadabbur</i> , reflection) provides a learning experience that fosters self-regulation and emotional calm in dealing with social-environmental problems.	2.78	Enough

4C Pillar	Closed Inquiry Statement	Average Score	Criteria
Campus	Sufism learning is integrated with green campus practices, such as waste reduction, energy saving, and environmentally ethical learning spaces.	2.67	Enough
	Sufism lecturers provide examples of sustainable behavior, such as living simply, saving resources, and maintaining the cleanliness of the campus environment.	4.46	Excellent
Community	Sufism values encourage student participation in community-based sustainability activities such as community service, environmental education, or socio-religious programs.	3.79	Good
Community	Sufism learning contributes to the formation of a campus culture that is spiritual, inclusive, caring for the environment, and supporting the principles of sustainable development.	3.61	Good
Culture	Studying Sufism increases awareness to manage emotions positively when facing differences of opinion or conflicts in the academic community.	4.39	Excellent
Culture	Sufism learning fosters the encouragement to be caring, help others, and play an active role in social-environmental good activities.	3.47	Good
Average		3.79	Good

The survey results showed that Sufism learning in instilling Emotional Spiritual Quotient (ESQ) to support Education for Sustainable Development (ESD) in higher education was in the good category, with an average achievement of 3.79. Qualitatively, Sufism learning has played a role in shaping spiritual awareness, emotional control, social concern, and students' responsibility towards the environment and society. In the Curriculum pillar, the highest indicator is found in the Sufism material in the PAI curriculum which provides an understanding of empathy, responsibility, and spiritual awareness, with a score of 4.34 or very good. This shows that the substance of Sufism is strong in building the basis of student ESQ. However, the integration of sustainability issues in the curriculum is still at a score of 2.95 and reflective learning methods obtained 2.78, both of which are categorized as adequate. This means that sustainability values are not fully structured in curriculum design and learning strategies.

In the Campus pillar, the role model of lecturers is the most prominent aspect with a score of 4.46 or very good. Lecturers are seen as able to become models of sustainable behavior through simple living, saving resources, and maintaining campus cleanliness. However, the integration of Sufism learning with green campus practices still received a score of 2.67, so it needs to be strengthened in the form of real programs such as waste reduction, energy saving, and environmentally friendly learning spaces. In the Community pillar, the value of Sufism was quite successful in encouraging student participation in community-based sustainability activities with a score of 3.79, as well as forming a spiritual, inclusive, and environmentally caring campus culture with a score of 3.61. Both are in the good category. Meanwhile, the Culture pillar showed strong achievements, especially in managing emotions when facing conflicts with a score of 4.39 or very good. Sufism learning also fosters social-environmental concern and involvement with a score of 3.47. Overall, Sufism contributes positively to ESQ and ESD, but it still needs to be strengthened in aspects of the curriculum, methods, and practices of green campuses.

3.1.1 Curriculum

Qualitative findings from five universities show that Sufism learning has become an important space for students to understand spiritual values and interpersonal ethics in a more profound way. In the Curriculum aspect, the results of observations at Universitas Singaperbangsa Karawang (UNSIKA) and STAI DR. KHEZ. Muttaqien points out that the learning of Sufism has been positioned as a space for internalizing spiritual values and interpersonal ethics, not just a theoretical study. Materials such as

tazkiyatun nafs, emotion control, empathy, and self-awareness consistently appear in the RPS analyzed. Curriculum documentation shows that some colleges have included human–nature relationships in the material structure, which is in line with the quantitative results that spiritual understanding scores very well. This emphasizes that the curriculum aspect can be an important foundation for the formation of student ESQ.

Although spiritual values and moral awareness have been firmly embedded, the integration of sustainability issues in the curriculum is still uneven. Observations at STAI Al-Badr Cipulus and the University of Tangerang Raya show that the topic of environmental ethics has not yet become an explicit part of the study of Sufism. One of the lecturers of STAI Al-Badr stated, "The discussion about the environment is not yet strong in the Sufism curriculum, but we are starting to include topics related to human mandate in protecting nature." This statement is in line with quantitative data that places sustainability integration in the category of adequate, signaling the need to strengthen the curriculum to comprehensively support ESD aspects.

The process of learning Sufism in the classroom is characterized by the use of discussion methods, *tadabbur* verses, and self-reflection that encourage students to connect the material with their personal experiences, especially related to the value of patience, sincerity, and the search for the meaning of life. Based on interviews with lecturers, it can be seen that students are quite responsive in internalizing these values, although not all are able to do deep reflection consistently. The lecturers emphasized that affective learning like this requires more intensive mentoring and a longer time to foster students' emotional readiness. This condition is in line with quantitative achievements that show that emotion regulation is in the sufficient category, which indicates that the development of ESQ through Sufism learning takes place gradually and requires a continuous habituation process.

3.1.2 Campus

In the Campus dimension, field observations show that Sufism learning has not been fully integrated with green campus programs such as waste reduction, energy utilization, and environmentally friendly learning spaces. Although these programs run well at UNSIKA and Buana Perjuangan University, the connection between sustainability practices and the values of Sufism has not always been seen in lectures. However, the example of lecturers is the strongest finding. A UNSIKA lecturer emphasized, "Example is stronger than theory. We try to show a simple, frugal, and clean life as a mirror of Sufism's values." This is in accordance with quantitative achievements that give very good scores to the lecturer's example.

3.1.3 Community

In the Community dimension, interviews and documentation of student activities show that the value of Sufism encourages students to be involved in socio-religious and environmental activities. Students from various universities were observed to be active in community service, environmental education, social service, and community studies. The observation of these activities shows that the internalization of the values of empathy and social care has moved from the classroom to real action in society. Quantitative findings that place community participation in the good category support the idea that Sufism learning has a significant social impact.

3.1.4 Culture

Sixth, in the aspect of Culture, Sufism learning has been proven to contribute to the formation of a more spiritual, inclusive, and peaceful academic culture. The results of the interview with the faculty leaders of the University of Tangerang Raya revealed, "Students are calmer, more appreciative of differences, and more concerned about social activities after taking Sufism courses." Observation of student interaction showed a reduction in interpersonal conflict and increased tolerance. Documentation of campus activities also shows that the values of spirituality and social care are beginning to become part of the institution's identity. Quantitative findings that the management of emotions and caring attitudes obtained good to very good scores corroborated these qualitative results.

The challenges in the implementation of the 4Cs (Curriculum, Campus, Community, Culture) of Sufism learning to instill Emotional Spiritual Quotient (ESQ) in supporting Education for Sustainable Development (ESD) in higher education can be seen from the uneven integration of sustainability issues in the curriculum, the lack of an explicit relationship between the values of Sufism and green campus practices, and the limited ability of students to conduct sustainable deep reflection. In addition, student participation in environment-based community activities is not fully structured, and the spiritual-sustainable campus culture is still developing gradually. To overcome these challenges, solutions that can be done include strengthening the curriculum by including the themes of Islamic ecology and sustainability ethics, integrating Sufism values in the green campus program, increasing the capacity of lecturers in affective pedagogy, and the formation of community activities that focus on social-environmental service.

In some campuses, the application of the 4Cs (Curriculum, Campus, Community, Culture) in Sufism learning shows that the process of internalizing spiritual values has resulted in real behavior changes and gradual improvement of academic culture. At the output level, students are increasingly accustomed to maintaining classroom cleanliness, tidying up the learning space, reducing the use of plastic waste, and showing concern for campus facilities through energy-saving practices and other environmentally friendly behaviors. Meanwhile, at the outcome level, Sufism learning strongly contributes to the formation of student characters who are more empathetic, spiritual, ethical, and have more stable emotional regulation. The campus culture has also developed to become more inclusive, harmonious, and environmentally conscious, characterized by increased participation in socio-environmental activities, the formation of a student community that cares for others, and the growth of collective norms that support sustainability as part of academic identity.

Findings from five universities show that Sufism learning has an important contribution in fostering Emotional Spiritual Quotient and supporting Education for Sustainable Development through strengthening empathy, emotion regulation, social care, and examples of sustainable living. Although the curriculum aspects and the integration of sustainability practices still need to be strengthened, the practice of Sufism learning has succeeded in forming a more humanistic, ecological, and spiritual academic culture. Thus, collaboration between strengthening the curriculum, green campus practices, and habituating Sufism values can be a holistic strategy in realizing continuous education in higher education.

3.2 Discussion

Sufism learning in higher education is a pedagogical approach that is able to offer *affective-spiritual grounding* in the midst of the challenges of the VUCA era. Recent literature confirms that cognitive intelligence is no longer adequate to deal with the complexities of the modern world; rather, the ability to regulate emotions, spiritual meaning-making, and ethical reasoning are the main determinants of individual success in a global context (Van Tuyll Van Serooskerken Rakotomalala et al., 2025). Sufism, with its orientation to tazkiyah al-nafs, is present as a learning context that is able to integrate inner awareness with social-environmental responsibility, so that it is in line with the *sustainability-oriented education agenda* (Tahir, Ilham, & Asrifan, 2025).

Within the framework of Education for Sustainable Development (ESD), Sufism plays an important epistemological function in overcoming technocratic reductionism. Sustainability education must include cognitive, affective, and behavioral aspects. However, most of the implementation of ESD in higher education is still trapped in the cognitive domain and lacks touch on the deepest layer of human consciousness, namely spirituality. Sufism learning fills this empty space by providing *an inner transformative capacity* (Alsaleh & Vasanth, 2024), which is the reflective and spiritual ability needed for long-term sustainable behavior change.

In the curriculum dimension, the findings of this study are consistent with *the curriculum infusion theory* which states that global issues must be integrated into the core of the discipline, not as additional knowledge (Johnson, 2023). This integration includes cross-disciplinary perspectives, lecturer training, as well as assessments that demonstrate improved student understanding. However, its

implementation faces challenges such as resource constraints and ensuring truly meaningful integration (Rosario-Ramos, Rivas-Drake, & Jagers, 2021). Although the Sufism curriculum has been strong in instilling empathy and moral awareness, the explicit integration of sustainability values is still low. Ecological awareness and Islamic ecotheology have the potential to be a curricular foundation that bridges the spirituality of Sufism with sustainability actions. This is in line with the study of Islamic ecopedagogy which emphasizes the sacred relationship of man with nature, where every educational activity must foster a sense of spiritual responsibility for the environment (Sa'ad, Ming, Sukirno, Rahman, & Riyadi, 2025). This approach views nature not just as an object of learning, but as a mandate that must be maintained through sustainable educational practices. Therefore, the integration of global issues in the curriculum is a strategic way to foster ecological awareness that is in harmony with Islamic values.

At the level of the learning process, methods such as reflection, *tadabbur*, and existential dialogue have been proven to foster students' meaning-making capacity. However, according to the theory of *contemplative pedagogy* (Sundstrom, Ramos, Zastavker, & Venkatesh, 2024), reflective experience requires a depth of practice to produce a stable emotional and spiritual transformation (Lian, Kiong, Chai, Kaur, & Liew, 2024). The limited time and lecture orientation that is still dominant in lectures make Sufism learning not optimal as a forum for the formation of students' emotional resilience. Interestingly, the example of lecturers has re-emerged as a strong determinant of character formation. In the perspective of *hidden curriculum theory* (Yazdani, Momeni, Afshar, & Abdolmaleki, 2019), moral and spiritual values are transmitted more through interpersonal interaction than through formal materials. Lecturers who live simply, take care of the environment, and show manners in daily life directly form an emotional-spiritual resonance that is much stronger than normative lectures. This supports the quantitative results that exemplary is the strongest predictor of ESQ formation.

The results of the study also show that there is a separation between green campus practices and Sufism values. In the framework of *the whole-institution approach* (Holst, 2023), sustainability is understood as a comprehensive effort that involves all aspects of the institution, not just classroom learning. The curriculum must be aligned with campus policies that support environmentally friendly practices, as well as institutional culture that fosters the value of sustainability in the daily lives of the academic community (Rahayu, Yamtinah, & Pujiastuti, 2025). In addition, social relations between students, lecturers, and the surrounding community need to be built to strengthen the collective commitment to sustainable transformation. The disconnect between the sustainability program and Sufism learning shows that this structural integration has not been realized. In fact, Sufism has a strong theoretical potential to become the moral basis of green campus practices, especially through the teachings of *zuhud*, *qana'ah*, and ecological mandate.

Sufism values have been proven to influence the social-environmental behavior of students. This is consistent with *pro-environmental behavior theory* which states that sustainability behavior is not only determined by knowledge, but by values, empathy, and spiritual depth (Chiu, Lee, & Chen, 2014; Güven & Uyulgan, 2021). Students who participate in Sufism learning show increased social awareness, community participation, and the ability to manage conflicts, which are important elements in sustainable cultural development.

The gaps between students' cognitive and affective outcomes found in this study reflect a global critique of higher education that focuses too much on academic output but ignores the humanitarian dimension. Students excel academically but are emotionally fragile and have minimal sustainability participation. This reinforces the urgency of learning Sufism as a holistic education approach that restores a balance between cognition, affection, and spirituality. Moreover, the consistency between quantitative and qualitative findings strengthens the argument that Sufism has a conceptual and practical basis to support ESD. Sufism spirituality is not only personal, but has a systemic impact on ecological behavior, social relations, and campus culture. Thus, Sufism can be positioned as transformative sustainability pedagogy, an approach that fosters the transformation of consciousness towards sustainability.

The challenges of implementing the 4Cs in Sufism learning to instill ESQ and support ESD include three main aspects. First, the integration of sustainability in the curriculum is still weak because environmental literacy has not been adequately developed, lecturer training is limited, and green campus policies have not been optimally run (Isroqunnajah, Mustikawan, & Rofiq, 2022). Second, the relationship between Sufism values and sustainability practices has not been strongly built, even though Sufism has the potential to become the basis of environmental ethics if integrated contextually (Zubaedi & Saputra, 2024). Third, students' reflective abilities are still limited, so structured reflective methods are needed to strengthen sustainable awareness. To answer these challenges, several strategic steps can be taken, including strengthening the curriculum by adding the theme of Islamic ecology and sustainability ethics, linking Sufism values with various green campus programs, improving lecturers' competence in the application of affective pedagogy, and developing community activities directed at social service and environmental concern. However, the implementation of the 4Cs has resulted in outputs in the form of increased concern for environmental cleanliness and outcomes in the form of more empathetic, spiritual, and inclusive characters, supported by ecological literacy that encourages campus culture to be more sustainable.

Tasawwuf learning instilling an emotional spiritual quotient to support education for sustainable development in higher education is a critical integration of curriculum theory, contemplative pedagogy, ecopedagogy, and whole-institution approach. The strategy places Sufism as the core of the formation of ESQ, which then flows into the curriculum (ESD Infusion Syllabus), reflective learning process (Reflective–Contemplative Learning), spirituality-based green campus practices (Green Sufism Practice), and campus culture (Spiritual–Sustainability Culture Building). If applied systemically, it has the potential to strengthen the transformation of higher education to be more spiritual, humanistic, and ecological.

4. CONCLUSION

The integration of Sufism learning and Emotional-Spiritual Quotient (ESQ) can be an important lever for Education for Sustainable Development (ESD) in higher education within the framework of the 4Cs (Curriculum, Campus, Community, Culture). The main findings can be summarized in four points: (1) the achievement of the 4Cs is in the good category (average 3.79), with the main strength in the formation of empathy, responsibility, and spiritual awareness through the Sufism curriculum; (2) the integration of sustainability issues and reflective-contemplative learning in the curriculum is still limited, so the strengthening of ecological literacy and reflection methodology needs to be accelerated; (3) in the campus dimension, the example of lecturers is the strongest factor in forming ESQ and triggering pro-environmental behavior (cleanliness, waste reduction, energy saving), even though the explicit connection between Sufism and the green campus program is not yet solid; and (4) in the community and cultural dimensions, Sufism contributes to socio-environmental participation and the formation of an academic culture that is more inclusive, peaceful, and caring. The main contribution of this research is to offer an integrative model of Sufism–ESQ–ESD based on 4Cs that expands ESD from a cognitive-instrumental approach to a more humanistic and transformative spiritual-affective approach. Its policy and pedagogical implications include: strengthening the Islamic ecology curriculum and sustainability ethics, lecturer training in contemplative-affective pedagogy, aligning Sufism values with green campus policies (e.g., energy-saving programs, waste management, ethical learning spaces), and structured and social-ecological impact-oriented community service designs. The limitations of this study lie in the scope of the region (five campuses in two provinces), the use of descriptive perception surveys, and the absence of longitudinal measurements to ensure the sustainability of behavior change. Further research can test models inferentially (e.g. causal relationship between Sufism – ESQ – 4Cs), expand the sample across regions and types of universities, develop more robustly validated ESQ–ESD instruments, and conduct longitudinal studies or pedagogical experiments to assess the effectiveness of reflective-contemplative interventions and the integration of Sufism with green campus programs.

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