

# Architectural Influence on Emotional Well-being in Educational Spaces: A Case Study of Steiner Schools

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## Abstract

Architecture is an important factor in shaping emotional and psychological experiences in educational settings. This study investigates the impact of architectural design on emotional well-being in Steiner (Waldorf) schools. By using qualitative analysis, surveys with parents and teachers, and case studies of Waldorf schools in Bengaluru, the Goetheanum in Switzerland, and Sloka Waldorf School in Hyderabad, this study explores how architectural design elements such as spatial layout, use of nature, material selection, lighting, and furniture arrangement influence emotional well-being in terms of stability, creativity, and a sense of belonging. The results show that organic spatial design, use of nature, handmade materials, and dynamic spatial arrangements result in a supportive and inclusive environment that has a positive effect on emotional well-being. This study emphasizes the need for designing educational spaces that promote holistic development and provides implications for the integration of Steiner philosophy into modern architectural design and how it can be beneficial for the emotional well-being in children.

**Keywords:** Biophilic design, flexible learning spaces, classroom aesthetics, furniture design, sensory impressions, learning environment, educational architecture, psychological well-being.

## 1. Introduction

Learning environments are very important in the emotional and psychological development of students, and this influences their learning capacity. This is even more important in alternative learning environments, such as Steiner schools, which were established based on the principles of Rudolf Steiner's anthroposophy.

Steiner schools focus on holistic learning and the intellectual, emotional, and spiritual development of children. They believe that the learning environment, including its architectural design, is vital for the emotional development of children and influences their intellectual capacity. Steiner schools are differently designed from other schools, which are characterized by bright colors and inflexible architectural designs. Steiner schools are characterized by soft designs and flexible architectural designs that are vital for creativity and emotional development.

The research study investigates the effect of the architectural design of Steiner schools on the emotional development of children using case studies. The research study will enable the determination of the critical architectural design features that are vital for the creation of a positive learning environment and will provide details on how architectural designs in learning environments can be utilized for the creation of positive emotional experiences.

### **1.1 Brief History of Waldorf Education**

Waldorf education, established by Rudolf Steiner in 1919, originated in Stuttgart, Germany, due to the initiative of Emil Molt, the proprietor of Waldorf-Astoria Cigarettes. Molt was searching for a school that would be available to all levels of society, thus providing an alternative to the conventional public schooling system. Steiner's philosophy of anthroposophy, with its emphasis on freedom, self-actualization, and integral development, was incorporated into the Waldorf school system. It quickly gained popularity, with schools opening in Europe, the USA, and Argentina in the 1930s.

Today, Waldorf education has become a worldwide movement with more than 3,000 schools and kindergartens in 74 countries across the globe. Although still in its nascent stage, Waldorf education in India is gaining popularity among parents and teachers looking for holistic and non-competitive learning spaces. Its focus on art, nature, and spirituality aligns well with the Indian culture, thus providing a solid base for its development despite government restrictions and availability.

### **1.2 The Waldorf Approach to Education**

The Waldorf approach breaks down Child development into three main phases:

- Children from ages 0-7 are encouraged to explore through their senses, imitate, and play creatively.
- Children from ages 7-14 are encouraged to use their imagination, artistic expression, and experiential knowledge.
- Children from ages 14-21 are encouraged to think analytically, be socially aware, and think independently.

The design of Steiner schools is based on these three stages of development. The young children are introduced to rounded shapes and warm colors, while the older children are introduced to more defined shapes and cool colors. Space becomes a silent teacher.

### **1.3. Steiner as an Architect**

The architectural activities of Rudolf Steiner include two large projects: the First Goetheanum (made of wood and burned down by arson in 1922) and the Second Goetheanum (made of concrete and completed in 1928, after his death). These buildings are famous for being masterpieces of expressionist architecture from the early 20th century. Steiner also designed several other smaller buildings, where he tried to combine functional architecture with organic, nature-inspired forms, like those of other architects, such as Antoni Gaudí.

Steiner's architectural philosophy was focused on the spiritual and cultural growth of humanity. Steiner himself did not design buildings for Waldorf schools, but since then, the international Waldorf community has built a great number of buildings that embody his ideas, which are now known as the Goethean style, in honor of Goethe, who had a great influence on Steiner.

Steiner also believed in architecture as a "total art form," where elements of sculpture, painting, and other arts are combined. He designed sculptures and blackboard drawings, which are an integral part of his artistic activity. His architectural and aesthetic ideas align with currents in 20th-century art and architecture, such as those seen in the Bauhaus school and works by figures like Louis Sullivan and Joseph Beuys.

## **2. Methodology**

The study revolves around the impact of Steiner school environments on emotional well-being because it attempts to find a link between architectural design and holistic education. Furthermore, The researcher has experience in a course related to Steiner education and more than 1.5 years of teaching experience in

NGOs, applying these ideas in real life. This provides the researcher with hands-on experience regarding how architectural design helps in holistic development in schools. The methodology is as follows:

### 2.1. Research Design

The research design was qualitative to gain in-depth knowledge about the link between Steiner architecture and emotional well-being. The study uses both primary and secondary data to create a complete study.

### 2.2. Data Collection

#### 2.2.1. Survey:

A Google Form survey was conducted among Steiner teachers and parents to gain insights into their opinions about how the school environment impacts emotional well-being. The survey was conducted on parameters such as space design, natural materials, and use of outdoor spaces to create a supportive environment.

#### 2.2.2. Case Studies:

The Goetheanum (Switzerland): This is a secondary case study, where the architectural principles, organic design, and connection to emotional well-being in education are investigated. Primary Steiner Schools: Observations and documented findings from Steiner schools to investigate the application of architectural principles to support emotional and intellectual development.

#### 2.2.3. Literature Review:

A literature review of studies on Waldorf education, emotional well-being, and architectural principles in education was conducted to establish a theoretical framework. Some of the sources include studies by Kariippanon et al. (2020), Woolner et al. (2007), and original texts by Steiner.

### 2.3. Analysis

The findings from the survey were analyzed to investigate the themes that arise, such as natural materials, adaptability, and outdoor space. The case studies were used to compare the findings with the existing architectural principles in Steiner education.

## 3. Literature Review

### 3.1. Spatial Configuration and Emotional Well-being

The spatial configuration of learning spaces affects the interactions of students with each other and the space, which ultimately affects their emotional well-being. **Kariippanon et al. (2020)** studied the complex adaptive systems of flexible learning spaces. They found that learning spaces with flexible furniture, open spaces, and multifunctional spaces support autonomy, stress management, and social interactions among students. These learning spaces allow students to adapt the space to their needs, which increases their emotional engagement.

**Woolner et al. (2007)** studied the impact of the physical environment on learning outcomes and emotional well-being. They emphasized the need for learning spaces that offer opportunities for social interactions and quiet private areas. Learning spaces in schools with different spatial configurations reduced the levels of anxiety among students. The authors concluded that learning spaces that offer opportunities for multiple engagement types, such as collaborative and independent learning, satisfy the emotional needs of students. In a similar manner, the study conducted by **Imms & Mahat (2018)** explored the concept of innovative learning environments, focusing on the psychological need for supportive and flexible learning spaces. The findings of the study revealed that students in learning environments reported a higher level of

emotional comfort and sense of belonging, which is essential for long-term emotional support. The authors suggested that flexible learning environments support the needs of students by encouraging independence and a sense of community.

In the context of Steiner schools, Ruhi Tyson (2024) states that the design of Steiner school environments involves organic shapes and rhythmic transitions. The design of learning environments is consistent with the principles of anthroposophy, which allows for the emotional well-being of students by creating a peaceful environment. The RoSE journal further states that the design of open spaces in Steiner schools allows students to build emotional resilience by overcoming sensory overload, which is not possible in a conventional classroom.

#### **Gaps:**

Although mainstream research has identified the benefits of flexibility, it neglects the complex impact of organic space design, as in Steiner education. There is also a gap in mainstream research on the longitudinal impact of these designs on emotional well-being.

### **3.2. Natural Elements and Mental Health**

The influence of natural elements on learning environments has a great impact on the emotional well-being of students. **Helliwell (2018)** examined the impact of green spaces in learning environments on relaxation and emotional stability. The findings revealed that students in learning environments with access to gardens and outdoor learning environments experienced lower levels of stress and improved moods compared to students in learning environments with limited green spaces.

**Kariippanon et al. (2020)** emphasized that the addition of natural light and plants in the classroom environment supports students with emotional regulation and improves their focus. This also adds to the feeling of openness, which is otherwise absent in a closed classroom environment.

In Steiner education, **Mahat et al. (2021)** stated that outdoor learning is a part of the curriculum in Steiner schools, which is in line with the ideology of being in harmony with nature. The **RoSE journal** further explains the addition of outdoor learning and gardening in Steiner schools to develop the emotional and mental well-being of students. According to Steiner ideology, interaction with nature is not only important for emotional development but also for personal and mental development.

#### **Gaps:**

Though the existing literature emphasizes the need for nature-rich environments, it overlooks the difficulties faced by urban Steiner schools in incorporating nature-rich environments. Further study is needed on how to incorporate these ideologies in an urban setting where land is scarce.

### **3.3. Furniture Design and Arrangement**



**Figure 1: Waldorf kindergarten classroom in Yellow Train School (Source: Yellow Train Website)**

Furniture design is an important consideration for emotional well-being because it affects comfort, posture, and social interactions in the classroom. Lei (2010) examined the effects of furniture design in the classroom and concluded that flexible chairs and desks decrease physical discomfort, which leads to an increase in emotional engagement. Students in the classroom with flexible furniture were more engaged and less frustrated.

**Bartosova (2021)** examined the psychological effects of natural materials used in furniture design in the classroom. The study concluded that furniture designed using natural materials like wood creates a relaxing environment and a sense of sensory comfort, which leads to a decrease in stress levels. Schools that used natural materials in furniture design reported improved relationships between students and teachers because students felt comfortable in the environment.

**Mahat et al. (2021)** emphasized the importance of flexible seating. The study demonstrated that students emotionally benefit from having the opportunity to choose their seating, which leads to an increase in their feelings of control in the environment.

In Steiner schools, the **RoSE journal** investigates the relationship between natural furniture and the anthroposophical educational method based on sensory education. The Steiner classroom is marked by simplicity and naturalness, which provides a positive emotional background. The intentional use of natural elements in furniture design helps children establish an improved emotional relationship with their surroundings.

Gaps:

Although it is understood that there is scientific evidence supporting the benefits of natural furniture, there is a lack of focus on hand-made designs and their emotional impact, particularly in alternative educational institutions. There is a need for more scientific research to explore the impact of natural furniture on emotional control in the context of holistic educational systems such as Steiner.

### 3.4. Conclusion

The above literature review has highlighted the significance of spatial layout, nature, and furniture design in relation to emotional well-being in educational institutions. Although there are several studies that validate Steiner education, there are still some research gaps in the literature:

- There is a lack of research on the long-term psychological implications of organic spatial layouts in Steiner education.
- There is a lack of research on the integration of nature in urban Steiner schools with limited space.
- There is a lack of empirical research on the emotional implications of handcrafted furniture in educational institutions.

These research gaps will be filled to enhance the understanding of the significance of architecture in the optimization of emotional well-being in educational institutions.

## 4. Primary Case Study: Waldorf Schools in Bengaluru

### 4.1. General Overview of the School



**Figure 2 & 3: Open-air classroom fostering sensory engagement and connection to nature.**

(Source: Kingdom of Childhood Website)

The Steiner school studied is located on a two-acre land, with one acre allocated for the construction of buildings and the other acre allocated for open spaces. The classrooms range from 400 sq. ft. (for curative education) to 650 sq. ft. (general classrooms) and can accommodate 7-25 children. The design of the school architecture includes one-floor kindergarten buildings and two-floor buildings for higher classes.

## **4.2. Spatial Layout and Emotional Well-being**

### **4.2.1. Design Philosophy and Emotional Connection:**

The spatial design of Steiner schools aims to design spaces that provide children with a sense of belonging and emotional rootedness. As stated by one of the teachers at the Steiner school,

"The spaces should foster polarities—stillness and movement, light and darkness, sound and silence."

This contrast is an integral part of the design philosophy of the school, ensuring that the spaces designed are supportive of different emotional experiences.

### **4.2.2. Age-Appropriate Classroom Forms:**

The classrooms in Steiner schools can have organic forms rather than purely rectangular ones. Rounded corners, kindergarten arches, and transitions between geometric shapes like octagons in the upper grades signify age-appropriate development. These enable the children to feel cared for while also enabling the architecture to play an active role in the development of the children.

### **4.2.3. Lighting and Atmosphere:**

Semi-open spaces with jali windows and large windows, which control the lighting to create a specific atmosphere, were emphasized by one of the teachers. Translucent curtains allow filtered light to enter, which creates a peaceful and meditative atmosphere when needed. The combination of architectural and design elements enables the creation of a sense of homeliness, making the classroom a "home" for all the children and teachers.

### **4.2.4. Choice of Wall Colors:**

The choice of wall colors in the classrooms is determined in line with the developmental needs of children at different stages, based on Steiner's color scheme. As one of the teachers explained,

"A small child has different needs compared to an older child. Very broadly, you can say that a small child is more into warm, soft colors, and as he or she approaches adolescence and the intellect awakens and is sharpened, cooler colors are more suitable—more withdrawn, they do not embrace you in the same way, but let your own clear thought emerge."

This method encourages the development of emotions and intellect as children grow at different stages of life.

## **4.3. Natural Elements and Mental Health**

### **4.3.1. Integration with the Environment:**

Steiner schools embrace natural elements and the environment in their basic design principles. The KOC school, being near a lake, uses its wetland environment as an advantage rather than a disadvantage. As one of the teachers explained,

"The key element of this land is water. We use it to enhance the environment rather than see it as a burden."

Streams flow alongside buildings, culminating in a bio pond that supports biodiversity while serving practical rainwater harvesting purposes.

#### 4.3.2. Sustainable Practices:

The buildings are erected on stilts, 10 feet high, to suit the wet topography, making them functional and sustainable. Furthermore, sustainable practices such as composting, biogas power, and solar projects are central to the philosophy of the school.

#### 4.3.3. Natural Materials in Architecture:

The adoption of natural materials such as rubberwood and stabilized mud blocks makes the environment sustainable, enabling the spaces to facilitate the mental well-being of the students through their connection with nature.

### 4.4. Furniture Design and Arrangement

#### 4.4.1. Personalized and Common Areas:

The furniture design in Steiner schools is done in a way that encourages individuality and a sense of community. For instance, every child has his/her own customized desk and chair with drawers where they can store their personal belongings. There are also common areas such as nature tables and story tables where children can gather to undertake collaborative learning.

#### 4.4.2. Kindergarten and Curative Classrooms:

Kindergarten classrooms are designed with flexible play furniture such as play stands with curtains and dollhouses, which create a conducive environment for young children. In curative classrooms, specialized furniture is used to cater to the needs of children with disabilities, which encourages inclusivity.

#### 4.4.3. Creative Use of Blackboards:



**Figure 4: Artistic blackboard illustration integrating curriculum and aesthetic expression.**

**(Source: Da Vinci School)**

The use of blackboards is another special feature of Steiner schools, which is both functional and a demonstration of creativity by teachers. One of the teachers provided information on how blackboards are used creatively to accommodate multiple subjects in one learning space. In upper grades, blackboard drawings are academic and detailed, which gives students and teachers alike a sense of pride and ownership.

### 4.5. Conclusion

The architecture of Steiner schools is an excellent example of how design can positively affect emotional well-being. By integrating organic design, sensory design, and inclusive design, it is possible to design spaces that can positively affect emotional security, creativity, and inclusivity. Despite the challenges of cost and cultural attitudes, the Steiner model has a lot to offer in terms of how we can rethink educational architecture.

#### 4.6. Recommendations

- **Cost Optimization:** Alternative materials and construction methods should be considered to reduce costs without compromising design.
- **Hybrid Models:** Architectural systems that are flexible and integrate the Steiner model with the traditional education sector's needs should be developed.
- **Further Studies:** Longitudinal research studies should be conducted to evaluate the long-term emotional and psychological impact of Steiner architectural design on students.

#### 4.7. Case Study Context / Acknowledgment:

The current study is made richer by the knowledge and experience of Mr. Manivannan Ganapathy, an experienced educator and advocate of the principles of Steiner education. His understanding of the architectural and emotional context of Steiner schools has been very valuable in understanding the importance of design elements in the emotional well-being of children in an educational context, specifically in the Kingdom of Childhood schools in JP Nagar and Sommanahalli, and the teachers at the respective schools.

The collaboration between Architect Sathya Prakash Varanashi and Mr. Manivannan in the Kingdom of Childhood project in Kammanahalli has also provided the study with a deeper understanding of the importance of architecture in providing a nurturing environment.

### 5. Secondary Case Study I: The Goetheanum (Switzerland)

#### 5.1 Introduction



**Figure 5: The Second Goetheanum, Dornach, Switzerland – an example of organic expressionist architecture embodying anthroposophical principles. (Source: Goetheanum Website)**

The Goetheanum in Dornach, Switzerland, is the spiritual home of the global Anthroposophical movement and a significant institution for Steiner education. Although it is not a school in the traditional sense of the word, it is a crucial part of the development, dissemination, and implementation of Waldorf (Steiner) education around the world. The Goetheanum is both an educational institute for teachers and a case study on the impact of architectural and design-related factors on the emotional well-being of students in an educational environment.

#### 5.2 Historical Background

The Goetheanum was founded by Rudolf Steiner in 1920 as a place for spiritual and intellectual development, in accordance with the principles of anthroposophy. Today, it is a significant institution for Steiner education, where teachers from all over the world come to learn about anthroposophy, the philosophy that underlies Waldorf education. The Goetheanum itself is a testament to Steiner's

architectural philosophy and a living example of how architectural design can be successfully integrated with educational philosophy.

### 5.3 Spatial Layout and Emotional Well-being



**Figure 6 & 7: Interior view of the Great Hall illustrating fluid geometry and spatial expansiveness promoting reflection and emotional balance. (Source: Goetheanum Website)**

The spatial layout of The Goetheanum is a manifestation of Steiner's vision for designing spaces that would enable emotional balance, intellectual insight, and spiritual growth. The spatial layout of the building is marked using organic and flowing shapes as opposed to box-like shapes. The organic design of the building is not only aesthetically pleasing but also has the potential to induce a sense of oneness with nature and the universe. For instance, the central hall of the building, known as the Great Hall, is designed to induce a sense of expansiveness and oneness. The unique and flowing shape of the hall, coupled with the use of natural materials, is meant to induce a sense of calmness, openness, and spirituality, which would have a positive impact on the emotional well-being of the visitors.

Like other Steiner schools globally, the architectural design of The Goetheanum is characterized by fluidity and flexibility. The various rooms in the architectural design of The Goetheanum are not rigid but flexible and can be adapted for various uses. This is in line with the flexible learning environments that are advocated for in a Steiner education, where learning environments are designed to promote freedom of movement, creativity, and a sense of autonomy.

The architectural design of The Goetheanum also promotes socialization and the creation of environments for solitude and reflection. There are environments for socialization and group discussions as well as environments for quiet reflection and meditation. This is consistent with the findings on emotional well-being in educational environments, which emphasize the need to provide environments that support different emotional needs.

### 5.4. Natural Elements and Mental Health

#### 5.4.1. Use of Natural Materials:

The Goetheanum utilizes the idea of natural materials such as wood and stone, as well as other natural elements, to provide a natural environment. The use of such materials provides a sense of comfort and

naturalness, which helps to alleviate stress and promote emotional well-being. The building is also situated in the midst of gardens and natural surroundings, which serve as a haven for relaxation and reflection. This environment is consistent with the biophilic hypothesis, which asserts that nature has the capacity to alleviate stress and improve moods.

#### **5.4.2. Integration of Daylight:**

The building design incorporates the use of large windows and strategic openings to maximize natural light.

#### **5.4.3. Artistic Integration of Natural Themes:**

Murals, statues, and other artistic features of the Goetheanum may incorporate themes of nature, further enhancing the sensory experience. These features promote reflection and a sense of unity with nature, resulting in enhanced mental health.

### **5.5. Furniture Design and Configuration**

#### **5.5.1. Handcrafted and Organic Furniture:**

The furniture design of The Goetheanum is done by hand using natural materials like wood, which symbolizes Steiner's love for nature and organic design. The furniture design has rounded corners and organic patterns that give a sense of security and oneness by eliminating sharp and rigid corners.

#### **5.5.2. Functional and Flexible Design:**

The furniture design is functional and flexible, which symbolizes the flexible spatial design of the building. The chairs, tables, and other furniture are designed to be mobile and flexible, which makes it easy to reorganize the space for different functions, such as workshops, performances, and meditation.

#### **5.5.3. Comfort and Ergonomics:**

The seating design is created to facilitate comfort and good posture, which is critical for maintaining focus and emotional balance during extended use. Ergonomic design is subtly integrated to facilitate physical and mental activity.

#### **5.5.4. Social and Solitary Configurations:**

The furniture layout is designed to facilitate both social and solitary pursuits. Social zones are designed to encourage collaboration and interaction, while quiet zones include seating designed for solitary pursuits and contemplation.

### **5.6. Conclusion:**

The Goetheanum is a perfect example of how architecture can play an important role in the promotion of emotional well-being in educational institutions. The architectural design of the building, which combines the educational philosophy of Steiner, is a perfect example of how the architectural design of the building combines a physical and educational example for the international Waldorf community. The architectural design of the building is perfectly in line with the educational philosophy of promoting not only intellectual development but also emotional well-being.

As has been clearly established in this case study, the combination of architectural design and emotional well-being is an important aspect of designing spaces that not only promote intellectual development but also emotional development. The impact of the Goetheanum on Waldorf schools around the world is a clear indication of the impact of design on the educational experience and emotional well-being of those who experience it.

## 5. Secondary Case Study II: Sloka Waldorf School, Hyderabad

Sloka Waldorf School, located in Hyderabad, is one of the most successful implementations of Waldorf education in India. The school was established with the vision of providing an alternative and holistic learning experience, which combines the Waldorf philosophy with Indian culture and environmental settings. The school is a testament to the fact that global educational philosophies, such as Waldorf education, can be successfully localized to promote creativity, critical thinking, and emotional well-being.

### 6.1. Background and Philosophy

Sloka Waldorf School focuses on the holistic development of children, taking into consideration their physical, emotional, and intellectual development. The Waldorf philosophy understands the various levels of development in children and balances academics, arts, and practical work according to these levels.

The philosophy also emphasizes the development of curiosity, creativity, and balance in children, which helps to develop a lifelong love for learning rather than learning by rote. The school successfully combines the anthroposophical philosophy of Steiner with Indian culture, values, and environmental awareness, making it a truly unique expression of Waldorf education in India

### 6.2. Spatial Layout and Emotional Well-being

The design philosophy of Sloka Waldorf School encourages a supportive environment for the emotional and intellectual development of students.

#### 6.2.1. Classroom Design Homely Ambiance:

Classrooms are designed with soft lighting, wooden furniture crafted by artisans, and seasonal decorations that give a homely feel to the students. Personalized Spaces: Blackboard paintings, student work, and seasonal decorations reflect the uniqueness and creativity of each class.

#### 6.2.2. Color Scheme

Lower Grades: Warm and soft colors like peach and light yellow are used to encourage imagination and emotional warmth.

Higher Grades: Cooler and more subdued colors like blue and green are used to encourage intellectual clarity and focus.

#### 6.2.3. Multipurpose Spaces

Large halls are designed for music performances, theater performances, and community gatherings, which help to enhance emotional well-being through artistic expression and social interactions.

### 6.3. Natural Elements and Mental Health

Sloka has the concept of nature as part of its educational philosophy, which helps to enhance the mental well-being of students.

#### 6.3.1. Outdoor Spaces Gardens and Sandpits:

These areas are designed for free play and learning by experience, which provides students with a direct experience of nature.

Open-Air Classrooms: Open-air classrooms help to provide students with a sensory experience and calm their minds.

#### 6.3.2. Sustainability Practices

Gardens and Organic Farming: Students are involved in gardening and farming activities, which help to teach them the importance of sustainable living and provide them with a sense of responsibility towards

nature.

Natural Materials: Use of mud plaster and wood in the architectural design of Sloka provides a sense of calmness and eco-friendliness.

### 6.3.3. Ventilation and Lighting

Use of natural ventilation and natural lighting helps to reduce dependence on artificial lighting, which enhances comfort and mental clarity.

## 6.4. Furniture Design and Arrangement

The furniture at Sloka Waldorf School is designed in such a way that it aligns with its pedagogical and environmental philosophy.

### 6.4.1. Handcrafted Wooden Furniture Child-Centric Design:

All the furniture is designed in such a way that it is child-friendly, long-lasting, and child-sized to meet the requirements of children at different levels of development.

Natural Aesthetics: Use of untreated wood further adds to the natural and serene environment of the classroom.

### 6.4.2. Arrangements for Flexibility for Activities:

The arrangement can be easily changed to meet the requirements of different teaching methods like group discussions, storytelling, and art classes.

Cozy Arrangements: Emphasis is given to creating cozy corners that facilitate engagement and concentration.

### 6.4.3. Craft and Art Rooms

Woodworking and craft rooms are equipped with functional and sturdy furniture that facilitates creativity and skill development.

## 6.5. Conclusion

The Sloka Waldorf School is a very good example of how the concept of anthroposophy can be applied in the Indian context. The school provides a nurturing environment, sustainability, and community involvement to provide a holistic approach to the development of children. The case study is a very good source of information on how the educational spaces can be designed to meet the requirements of the Indian culture and environment while still retaining the universal principles of holistic education.

## 7. Data Collection and Survey Analysis

### 7.1. Classroom Environment at Steiner Schools



**Figure 8: Classroom environment perceptions highlighting warmth, nature connection, and flexibility.**

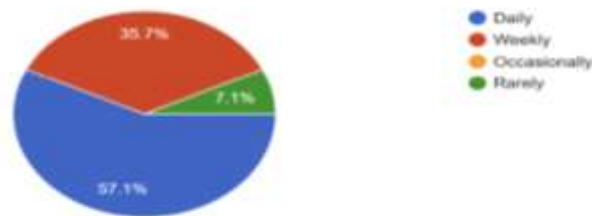
*Source: Author’s survey data (2025).*

The survey revealed that most participants were satisfied with the classroom environment, which is warm and welcoming, as advocated by the Steiner method of creating an emotionally supportive environment. The link with nature, which is achieved using natural materials and being close to nature, was also highlighted by many participants.

Other key factors that were highlighted include bright and naturally lit spaces and organized and aesthetically pleasing designs, which help to create clarity and emotional balance. Some of the participants also appreciated the flexibility of the classroom environment, which can be used for different learning activities.

### 7.2. Frequency of Outdoor and Nature-Based Activities

How often are outdoor or nature-based activities included in the curriculum?



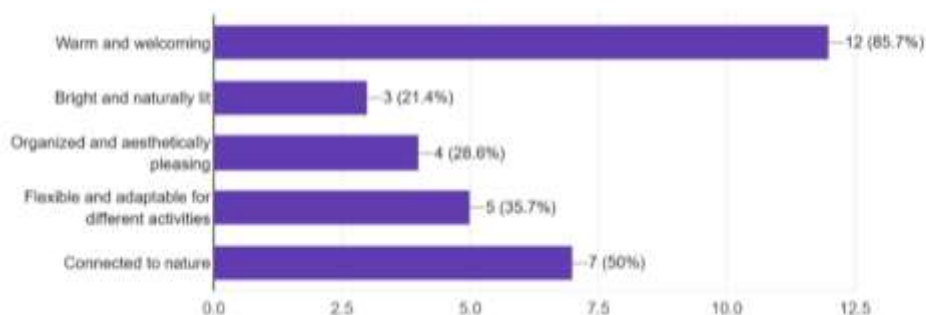
**Figure 9: Frequency of outdoor and nature-based activities in the Steiner curriculum.**

*Source: Author’s survey data (2025).*

Most of the respondents indicated that outdoor or nature-based activities are incorporated daily into the curriculum, which is not surprising given the focus on experiential and nature-based learning in the Steiner method. A smaller number of respondents indicated incorporation on a weekly basis, which may suggest a slight divergence in practice. Only one response suggested occasional inclusion, which suggests the importance of consistency in implementation at the school level.

### 7.3. Reflection of Steiner Principles in the Physical Environment

How would you describe the classroom environment at your Steiner school?



**Figure 10: Degree to which the physical environment reflects Steiner principles.**

*Source: Author’s survey data (2025)*

Most of the respondents agreed that the physical environment reflects the principles of Steiner, with most of the respondents suggesting that it reflects completely or mostly. The use of natural materials, organic shapes, and artistic designs was appreciated. However, a few respondents suggested that more could be done to reflect the Steiner philosophy by using sustainable materials or organic architectural design.

#### 7.4. Impact on Emotional Well-Being

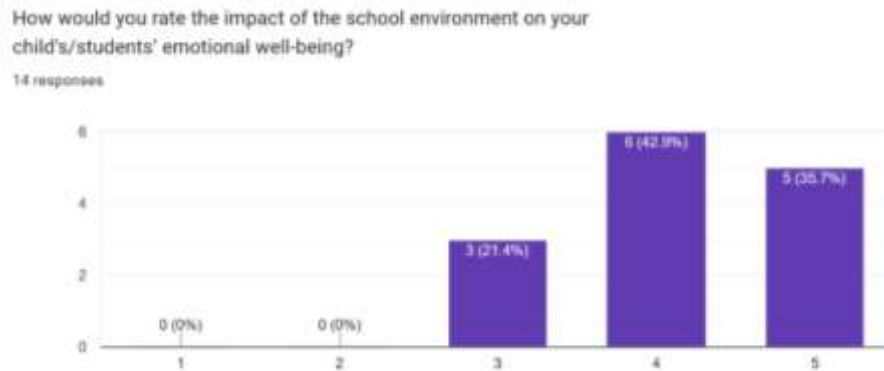


Figure 11: Perceived impact of the school environment on emotional well-being (1–5 scale).

Source: Author’s survey data (2025).

On a scale of 1 to 5, most participants rated the impact of the environment on emotional well-being as 4 or 5, which is a positive impact. Most participants felt that the school supports emotional well-being, balance, creativity, and a sense of belonging, though a few rated lower, indicating areas of improvement.

#### 7.5. Key Aspects Supporting Emotional Well-Being

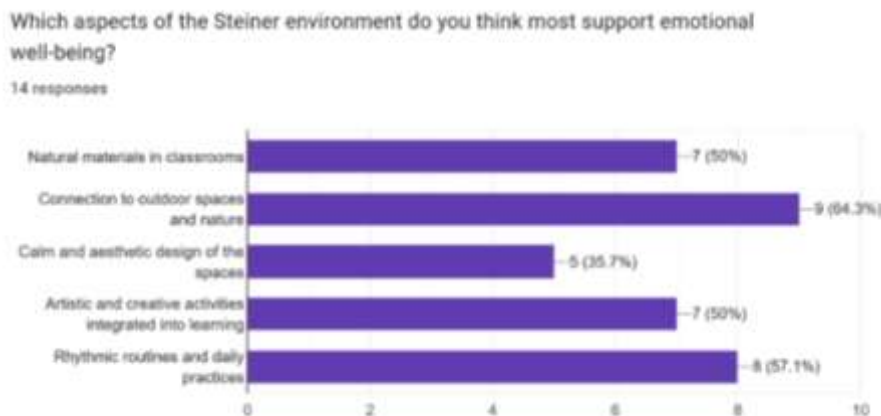


Figure 12: Key environmental factors supporting emotional well-being.

Source: Author’s survey data (2025).

The key aspects that support emotional well-being, as rated by the participants, are

- Nature Connection: Nature-integrated materials and elements that calm the mind.
- Artistic Expression: Arts integration supports self-expression and emotional balance.
- Calm and Aesthetic Design: Well-designed spaces with color soothe the mind.
- Rhythmic Routines: Structured schedules offer a sense of security and calmness.

## 7.6. Conclusion and Inferences

The survey highlights the positive impact of Steiner-inspired schools on the emotional well-being of children. Classrooms, which are known to be warm and welcoming, with a focus on nature, are inspired by the Waldorf philosophy, with nature-friendly materials and beautiful designs being an important part of it.

Outdoor activities and calm spaces, rhythmic patterns, and artistic learning are essential for the development of emotional well-being. Better behavior, such as mindfulness and predictability, was observed.

The survey results clearly show the effectiveness of the Steiner philosophy and, at the same time, highlight areas for improvement in sustainability and outdoor activities.

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