

Research Article

Invisible spaces, visible opportunities: The use of school common areas in teaching practices in Greek schools

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This study investigates how primary schools in Greece leverage “in-between” common areas (corridors, courtyards, entrances, libraries) as pedagogically meaningful spaces. Using a mixed-method survey with embedded open-ended questions, the study queried teachers to map uses, perceived educational value, and barriers. Participants were in-service primary teachers from diverse school contexts (urban, semi-urban, rural). Quantitative data were collected via a researcher-developed, literature-informed questionnaire that was pilot-tested for clarity and item functioning; qualitative insights came from optional open-ended responses. Internal consistency was estimated with Cronbach’s α . Because the main outcomes were Likert-type single items (ordinal), a normality-based parametric decision rule was not applied; instead, non-parametric tests were used throughout for Likert responses, while χ^2 was reserved for categorical variables. Results indicate very high recognition of the learning potential of common areas and widespread –though uneven– use: libraries and courtyards are most often prioritized for socio-emotional aims, while stairwells and canteens are typically deprioritized and seldom selected. Reported barriers cluster around infrastructure/material shortages, time and supervision demands, and local regulations, with some variation by school location. No statistically significant associations were observed between the extent of integration of common areas and the attitudinal items. The study contributes to a practice-oriented typology of spaces/uses and highlights low-cost design and policy levers (zoning, flexible equipment, clear supervision routines) to better integrate common areas as extensions of the classroom.

Keywords Educational design; Learning spaces; Mixed-methods; Primary education; School common areas; Socio-emotional learning

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1. Introduction: The Hidden Pedagogy of Non-Formal School Space

Educational research has long treated the classroom as the main unit of analysis and intervention, focusing on spatial design, flexibility, and the integration of learning technologies (Khatimah, 2021; Poyato-Núñez et al., 2024). This emphasis aligns with a dominant assumption: that instructional quality is primarily produced inside the classroom and that other school areas merely support circulation, supervision, or logistics. However, contemporary concerns in schooling—student well-being, safety, inclusion, belonging, and socio-emotional development—have made it increasingly difficult to maintain a “classroom-only” view of learning environments. In practice, key educational processes unfold in spaces that are not formally planned as teaching settings, yet systematically shape interpersonal dynamics, behavioral norms, and opportunities for informal and experiential learning (Harber & Harber, 2021; Sigurðardóttir et al., 2021).

A growing body of work suggests that “in-between” areas—corridors, courtyards, entrances and foyers, libraries, and other shared zones—function as semi-structured pedagogical ecologies. Their spatial

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configuration and everyday routines influence peer interaction, self-regulation, supervision load, and the ways students transition between learning and social activity. When intentionally designed or pedagogically framed, these spaces can extend learning beyond the classroom and support collaboration, autonomy, and social participation; when neglected, they may concentrate risks related to behavior, safety, or exclusion (Barrett et al., 2019; Harber & Harber, 2021; Sigurðardóttir et al., 2021). This perspective invites an ecosystem view of the school, where learning opportunities are distributed across the building and its shared areas rather than confined to the classroom.

Despite the above developments, empirical evidence remains uneven—especially regarding teachers' actual practices in primary education. Much of the available literature either emphasizes architectural/design principles or reports outcomes linked to specific interventions, without systematically documenting how teachers mobilize common areas in everyday instructional planning, for which pedagogical aims, and under what constraints. As a result, the translation of “educational space” discourse into feasible, low-cost pedagogical routines and leadership decisions remains under-specified, particularly in national contexts where infrastructure and regulatory conditions differ (Harber & Harber, 2021; Khatimah, 2021; Poyato-Núñez et al., 2024; Sigurðardóttir et al., 2021). In Greece, this gap is especially salient because common areas often vary widely across urban, semi-urban, and rural schools in terms of size, equipment, staffing pressures, and supervision demands—factors likely to affect whether such spaces can become pedagogically “usable.”

Against this background, the present study examines how Greek primary schools leverage common “in-between” spaces (corridors, courtyards, entrances, libraries and other shared areas) as pedagogically meaningful environments. Specifically, the study aims to: (1) map teachers' perceptions of the suitability and educational value of different common areas; (2) document the forms and frequency of use of these spaces and their integration into instructional planning; (3) identify which student needs and learning aims are most commonly addressed through common-area use (with particular attention to socio-emotional and behavioral dimensions); (4) explore perceived barriers (material, organizational, supervision-related, and regulatory) that restrict utilization; and (5) examine whether perceptions and practices vary by teacher and school characteristics (e.g., school location and context).

This study intends to contribute to the field in three ways. Empirically, it provides a practice-oriented map of how primary teachers mobilize specific spaces (e.g., the comparatively frequent use of courtyards and libraries versus the more ambivalent pedagogical status of corridors and entrances) and identifies recurrent constraints that shape implementation. Conceptually, it reframes common areas as potential extensions of the classroom that can support socio-emotional aims and, under certain conditions, selected cognitive goals, strengthening the ecosystem view of the school as a learning environment (Harber & Harber, 2021; Sigurðardóttir et al., 2021). Practically, it distills low-cost design and policy levers—such as zoning, flexible equipment, and clear supervision routines—that can guide school leaders and policymakers in integrating common areas into inclusive, flexible, and pedagogically responsive learning environments.

To situate these aims within the existing scholarship, the following section reviews recent research on the pedagogical potential and constraints of key “in-between” school spaces, focusing on corridors, schoolyards, libraries, and other shared/transition areas.

2. Literature Review

The literature review that follows synthesizes interdisciplinary work from educational research, learning-environment studies, and school design that examines how common school areas shape interaction, supervision, safety, and informal learning opportunities. Rather than treating these spaces as purely infrastructural, the reviewed studies conceptualize them as semi-structured pedagogical settings whose affordances depend on spatial configuration and everyday routines. The section is organized thematically by major types of common areas (corridors, schoolyards, libraries/canteens, and auxiliary transition spaces) to clarify convergent findings, tensions, and implications for practice.

Far from mere passageways, corridors can function as arenas of social interaction where spatial configuration (width, curvature, openness) modulates flow and spontaneous encounters; when intentionally designed, they may also host collaboration and learning activities with value comparable to classrooms. At the same time, weak supervision and unclear pedagogical framing raise behavior and safety concerns—concerns that targeted routines and clearer spatial “rules of use” can mitigate. Recent work reframes corridors via adaptive reuse principles into flexible learning zones that support autonomy and diversify school environments (Adera, 2025; Barrett et al., 2019; Bellfield, 2021; Kariippanon et al., 2019; Metz, 2023; Ogden et al., 2010; Rasmussen, 2021; Sailer, 2018; Wu et al., 2021; Wellenreiter, 2018).

Schoolyards can be integrated into instructional planning to strengthen hands-on learning, environmental literacy, physical activity, and inclusion—especially when designed as green and zoned environments responsive to age, gender, and disability. Empirical evidence indicates benefits for performance, well-being, and cooperative behavior, while also underscoring the importance of intentional design and structured routines to realize these outcomes consistently (De Vito et al., 2025; Bikomeye et al., 2021; Dimouli et al., 2024; Luís et al., 2020; Raney et al., 2023; Stadtler-Altman & Hilger, 2017; Van den Bogerd et al., 2023).

Libraries are widely discussed as hubs for self-regulated and collaborative study, belonging, and community formation; canteens/dining areas may foster sociability and care practices, where layout and aesthetics shape interaction; and auxiliary or transition spaces (e.g., waiting areas, foyers) can support emotional self-regulation and informal collaboration when designed as calming or interaction zones (Caruso & Rosenthal, 2020; Debabarni & Choudhury, 2024; Dubey & Jadhav, 2023; Horton & Forsberg, 2020; Merga, 2021; Moreland & Kammer, 2020; Murray & Wills, 2021).

Despite these strands, empirical evidence remains limited on how often -and for what pedagogical purposes- primary-school teachers mobilize common spaces in everyday practice, under which constraints, and with what perceived effects. This limitation restricts the translation of design principles into feasible pedagogy and constrains evidence-informed leadership and policy decisions about low-cost, high-impact improvements. To address this gap in the Greek primary-school context, the present study formulated the following aim and research questions.

The aim of the present study was to investigate primary school teachers' perceptions and practices regarding the pedagogical use of school common areas (indoor and outdoor) in Greek schools, and to identify reported student needs and contextual barriers that shape their utilization. Accordingly, the study examined the following research questions:

RQ 1) What are teachers' perceptions of the pedagogical role of school common areas, both indoor and outdoor?

RQ 2) What forms of pedagogical use of school common areas are implemented in practice, and to what extent are they integrated into structured instructional planning?

RQ 3) Which students' needs are perceived by teachers to be most effectively met using school common areas?

RQ 4) What obstacles do teachers encounter in attempting to incorporate school common areas into the educational process?

RQ 5) Are there differences in teachers' perceptions and practices based on demographic or professional characteristics (e.g., age, leadership position, teaching experience)?

3. Research Methodology

3.1. Research Design

This study addressed the research questions presented in Section 2 using a concurrent triangulation mixed-methods design, with quantitative and qualitative data collected simultaneously through a single structured questionnaire. Quantitative (closed-ended) items and qualitative (open-ended) responses were analyzed in parallel and then integrated at the interpretation stage to corroborate, complement, and enrich the findings (Turner et al., 2017). In the quantitative strand, analytic procedures were selected according to the measurement level of the variables (ordinal Likert-type items versus categorical responses), ensuring a uniform and transparent decision rule for statistical testing.

3.2. Participants

The invitation was disseminated to approximately 250 teachers in region of Akarnania, Western Greece, and 110 volunteered to participate. Table 1 presents the demographic and professional characteristics of the participants in the study ($N = 110$). This data provides the contextual framework necessary for interpreting the findings regarding teachers' perceptions and practices concerning school common areas.

The target population for this study was in-service primary school teachers in Greece. For the quantitative strand, $N=110$ in-service primary teachers provided complete closed-ended questionnaire data and were included in the statistical analyses. For the qualitative strand, data came from the optional open-ended items embedded in the same questionnaire; response frequency varied by prompt (approximately $n=25-31$ per open-ended question, with $n=4$ for the final comment prompt). To ensure relevance, inclusion

Table 1
Demographic and Professional Characteristics of the Sample

Variables	<i>n</i>	%
Gender of the Participants		
Male	34	30.9
Female	76	69.1
Age of the Participants		
up to 30	4	3.6
31–40	38	34.5
41–50	30	27.3
51+	38	34.5
Position in the School		
Director / Headmaster	38	34.5
Assistant Director	4	3.6
No Position with designated authority	68	61.8
Specialty of the Participants		
Teacher (General Class)	82	74.5
All-day Class Teacher	2	1.8
English Language	2	1.8
Visual Arts	2	1.8
Drama Education	2	1.8
Music Education	2	1.8
Integration Class	2	1.8
ICT Education	2	1.8
Physical Education	6	5.5
School Social Worker	2	1.8
Other: School Director	6	5.5
Participants' Years of Service		
1–5 years	10	9.1
6–10 years	26	23.6
11–20 years	20	18.2
20+ years	54	49.1
School Area		
Urban	32	29.1
Semi-urban	14	12.7
Rural	64	58.2
School Type		
Small-class (1-class to 3-class)	22	20.0
Multi-class (4-class to 12-class)	78	70.9
Large multi-class >12-class	10	9.1
Participants' Level of Studies		
Basic Degree	54	49.1
Second Degree	16	14.5
Advanced Training Program	10	9.1
Master	54	49.1
PhD	8	7.3

criteria required that participants (a) held a current appointment in primary education at the time of data collection, (b) had direct classroom duties, and (c) provided informed consent. Exclusion criteria omitted (a) secondary-education staff, (b) non-teaching administrative or support staff, and (c) questionnaires missing core sections necessary for robust quantitative analysis.

The sample is characterized by a significant predominance of female respondents, accounting for 69.1%. The academic qualifications among the participants are notably high, with 49.1% holding a master's degree and 7.3% possessing a doctoral degree. In terms of age distribution, the groups "31–40" and "51+ years" are equally represented, both at 34.5%, while only 3.6% of the respondents are under 30. Regarding professional experience, nearly half of the participants (49.1%) reported having more than 20 years of teaching experience, a factor that enhances the perceived reliability of their responses.

Furthermore, most of the teachers surveyed do not hold leadership positions (61.8%) and primarily belong to the general classroom teaching corps (74.5%), with other specializations individually represented.

Geographically, most respondents work in rural areas (58.2%). The sample also represents medium-to-large schools (4-12 class units), collectively offering a comprehensive and representative view across a range of school types and sizes.

Convenience sampling (non-probability) was used for the selection of the participants. This approach is considered methodologically acceptable in exploratory mapping of practices and perceptions when a complete sampling frame is unavailable and access windows are constrained (e.g., dispersed schools, administrative permissions, term schedules). It is widely reported in education field studies to secure an adequate N within reasonable time/cost, if limits to generalizability are stated and sample heterogeneity is pursued (e.g., Creswell & Plano Clark, 2018).

3.3. Instruments

A researcher-designed questionnaire was developed from the learning-spaces literature and pilot tested with a small group of teachers to check clarity and timing. The questionnaire consists of four parts:

The initial section of the questionnaire, entitled "General Information", comprises eight (8) closed-ended questions concerning the demographic and professional details of the educators. Specifically, it examines Gender, Age, Position of responsibility (with multiple-choice option), Teaching specialty (with a single-choice option), Years of teaching service, Level of Studies, as well as the School's Location (area) and Type.

The second section focuses on measuring educators' attitudes. Specifically, "Perceptions Regarding School Common Areas" consists of seven (7) questions that investigate educators' perceptions regarding the impact and utilization of these spaces. A five-point Likert-type scale is used, ranging from 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree. The statements concern, among other things, the impact of the school common areas on students' behaviour, mood or safety, the possibilities for the pedagogical utilization of these areas, and the existence of adequate and/or appropriately designed spaces.

Following the attitudinal questions, the third section, 'Experiences and Practices,' explores the active role of educators. Questions (Q2a, Q2b) that explore if educators have used a shared school space for educational activities and, if so, what specific activities were implemented (dichotomous and multiple choice). Additionally, the participants were asked to rank (1 to 9) school common areas from a list based on their suitability for utilization. A multiple-choice question investigates perceived obstacles to pedagogical utilization. The participants are called to assess the degree of integration of these areas into teaching practice using a frequency scale. Finally, two multiple-choice questions examine students' reactions to out-of-class teaching and the needs these spaces best meet.

Finally, to gather qualitative data and narrative insight, the fourth section, "Opinions and Proposals". This section comprises four (4) optional, open-ended questions allowing educators to express their views freely. Specifically, the questions request (a) Proposals for the redesign of a school common area to make it more pedagogically functional, (b) The ideal pedagogical use of the school hallway, and (c) The inclusion of general comments related to the research, while (d) they are free to express anything else relative to the research's subject.

Regarding measurement quality, the questionnaire was pre-tested on a preliminary sample of respondents. Internal consistency of multi-item scales was assessed with Cronbach's α (reported in the Results).

3.4. Data Analysis

3.4.1. Quantitative analysis

Data cleaning, handling of missing values, and descriptive statistics (means and SDs for Likert-type items; frequencies and percentages for categorical variables) were performed first. The participants answered Likert-scaled questions using the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree. Group comparisons on ordinal outcomes were conducted using Mann-Whitney U (two groups) and Kruskal-Wallis H (three or more groups). Associations between the extent of integration and selected attitude items were examined using Spearman's ρ . Associations between categorical variables were tested using Pearson's χ^2 (or Fisher's exact test when expected cell counts were small); Cramér's V was reported as effect size for χ^2 . For non-parametric comparisons, effect size r was reported. Statistical significance was set at $\alpha = .05$ (two-tailed). All quantitative analyses were conducted in IBM SPSS Statistics v26.

3.4.2. Qualitative analysis

Open-ended responses were analyzed using a thematic analysis procedure combining inductive coding with light deductive scaffolding (space types and barrier categories). An initial codebook was developed and iteratively refined through familiarization and coding. To enhance transparency, a second coder independently coded approximately 20% of responses; intercoder agreement (Cohen's κ) was calculated, and discrepancies were resolved through consensus. Coding and codebook management were performed in Microsoft Excel (Braun & Clarke, 2012).

3.5. Ethical Consideration

The research procedure used an anonymous, voluntary questionnaire with informed consent and no personal identifiers. Data collection was authorized by the local Directorate of Primary Education. Data were stored securely and reported only in aggregate.

4. Findings

4.1. Quantitative Analysis

4.1.1. Normality and statistical approach

Given that the primary outcomes were single Likert-type items (ordinal), non-parametric methods were selected a priori for all group comparisons and associations involving these variables. Consequently, the normality check (Shapiro-Wilk) conducted on the composite indices was treated as descriptive only and not decisive for the subsequent inferential analyses. Specifically, we used Mann-Whitney U for two-group comparisons, Kruskal-Wallis H for comparisons across three or more groups, and Spearman's ρ for examining associations among ordinal variables. Associations between categorical variables were tested using Pearson's χ^2 (or Fisher's exact test when expected cell counts were small). Statistical significance was set at $\alpha = .05$ (two-tailed).

4.1.2. Reliability of the instrument

Internal consistency was initially examined for the seven-item set assessing teachers' views on the pedagogical role and conditions of school common areas (Cronbach's $\alpha = .778$, $k = 7$, $N = 110$). Item diagnostics suggested that the statement regarding the perceived adequacy/availability of non-classroom spaces was less consistent with the remaining items and likely reflected a contextual resource condition rather than the attitudinal core of the construct. Accordingly, this item was analyzed as a standalone contextual indicator, and the composite beliefs scale used in subsequent analyses comprised the remaining six items, showing good internal consistency (Cronbach's $\alpha = .860$, $k = 6$, $N = 110$).

4.1.3. Teachers' perceptions of school common areas

Table 2 presents the analysis of the teachers' perceptions of school common areas ($N = 110$), which shows the relation between the theoretical acceptance of the spaces' value and their practical adequacy.

Table 2
Teachers' Perceptions of School Common Areas (N=110)

Perception	Min	Max	Mean	SD
1a. In general, school common areas affect students' behavior and mood.	2.00	5.00	4.3273	.71817
1b. School corridors/hallways may be leveraged for pedagogical activities.	1.00	5.00	4.0909	1.01859
1c. Elementary School students necessitate "calm zones" within the school environment.	2.00	5.00	4.6182	.70362
1d. The design of common areas influences the students' perception of safety/security.	2.00	5.00	4.3091	.80986
1e. In my school, there are adequate common areas that are utilized for instructional purposes.	1.00	5.00	2.9636	1.19577
1f. The aesthetic quality of school common areas positively influences the students' mood and conduct.	2.00	5.00	4.3455	.83979
1g. School common areas should be configured based on pedagogical criteria, and not solely functional ones.	3.00	5.00	4.3455	.66961

The analysis of the teachers' perceptions of school common areas revealed a pronounced structural contradiction between the theoretical acceptance of the spaces' value and their practical adequacy. Educators agree to an exceptionally high degree (Mean > 4/5) that the aesthetic quality (M=4.35), design, and safety of the spaces influence students' mood and behavior. The belief that students need "calm zones" gathers the highest degree of agreement (M=4.62 & S.D.=0.70). However, the statement "In my school, there are adequate common areas..." records the lowest mean score (M=2.96), indicating that the spaces are judged as marginally adequate or insufficient, despite the high recognition of their pedagogical value.

4.1.4. Frequency of use and implemented activities

Table 3 outlines the frequency of utilizing school common areas for educational activities. Following up on the high reported usage, Table 4 details the specific educational activities implemented in these common areas.

Table 3

Frequency of Utilizing School Common Areas for Educational Activities (N = 110)

<i>Participants' Answers</i>	<i>n</i>	<i>%</i>
Yes, I have utilized a school common area for an educational activity	108	98.2
No, I have not utilized a school common area for an educational activity	2	1.8

Table 4

Reported Implementation of Activities in School Common Areas (Multiple responses allowed)

<i>Selected activity</i>	<i>n</i>	<i>%</i>
Reading of narratives / literary texts	58	52.7
Mathematics in the outdoor environment	20	18.2
Observation of nature - natural science activities	71	64.5
Cooperative/Collaborative group games	80	72.7
Musical/theatrical rehearsals	58	52.7
Relaxation techniques	34	30.9
Exhibitions of student work in corridors/hallways	54	49.1
Artistic interventions on walls or other surfaces	44	40.0
Team strengthening activities	36	32.7
Didactic interventions during recess	34	30.9
Other	3	2.7

Note. This is a multiple response question. Percentages reflect the proportion of respondents selecting each option and therefore do not sum to 100%.

The utilization of school common areas for educational activities reveals near-universal penetration, with 98.2% of educators reporting that they have used such spaces. The activities implemented most frequently (see Table 4) focus on collaboration, movement, and connection with the environment: Cooperative/Collaborative group games (72.7%), Observation of nature - natural science activities (64.5%) and Reading of narratives along with Musical/Theatrical rehearsals (52.7%) are the most popular choices. Conversely, Relaxation techniques (30.9%) and Didactic interventions during recess (30.9%) are implemented less frequently. The participants answered a Yes/No question (Table 3) and, dependent on the answer, they were called to select at least one activity to describe their practices (Table 4, Question 2b. "If yes, which of the following activities have you implemented in such areas? (You may select more than one").

4.1.5. Ideal and minimal suitability of spaces

Table 5 details the prioritization of school common areas' suitability for didactic exploitation. Conversely, Table 6 identifies which common areas are considered the least suitable for didactic exploitation.

The prioritization of the school common areas' suitability (Table 5) indicates a preference for structured or outdoor areas: The Library (36.4%) and the Schoolyard/Courtyard (32.7%) are considered the most suitable spaces for didactic exploitation (First Choice). Conversely, Stairwells/Staircases (45.5%) and the Canteen/Cafeteria (23.6%) are considered the least suitable areas (Table 6). These findings demonstrate a tendency towards utilizing spaces that support either concentration (Library) or activity/movement (Schoolyard). The participants were asked to identify the common space that they consider to be optimally

Table 5
Importance of School Common Areas for didactic exploitation (N = 110)

<i>School Common Area</i>	<i>First Choice</i>		<i>Second Choice</i>		<i>Third Choice</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Schoolyard / Courtyard	36	32.7	26	23.6	18	16.4
Corridor / Hallway	4	3.6	24	21.8	10	9.1
Stairwells / Staircases	0	0	2	1.8	2	1.8
School Entrance / Foyer	2	1.8	6	5.5	30	27.3
Library	40	36.4	18	16.4	20	18.2
Canteen / Cafeteria	0	0	0	0	0	0
Waiting Area	2	1.8	8	7.3	4	3.6
Vacant Classrooms / Empty Rooms	4	3.6	12	10.9	26	23.6
Landscaped Schoolyard	22	20.0	14	12.7	0	0

appropriate for didactic exploitation, by ranking the given items in order of significance: the first, second, and third. Then they were asked to choose the school common area they deem least suitable for didactic exploitation.

Table 6
Perceived Minimal Suitability for didactic exploitation (N = 110)

<i>School Common Area</i>	<i>n</i>	<i>%</i>
Schoolyard / Courtyard	0	0
Corridor / Hallway	4	3.6
Stairwells / Staircases	50	45.5
School Entrance / Foyer	22	20.0
Library	2	1.8
Canteen / Cafeteria	26	23.6
Waiting Area	4	3.6
Vacant Classrooms / Empty Rooms	0	0
Landscaped Schoolyard	2	1.8

4.1.6. Constraints and barriers to the utilization of school common areas by educators

Table 7 identifies the key constraints and barriers reported by educators regarding the didactic exploitation of school common areas. The findings indicate that the obstacles faced are primarily structural and organizational in nature.

Table 7
Constraints and Barriers in the Didactic Exploitation of School Common Areas (N = 110)

<i>Constraint/Barrier</i>	<i>n</i>	<i>%</i>
Deficiency in resources	70	63.6
Insufficient facilities	80	72.7
Time constraints	60	54.5
Absence of such areas in the school	16	14.5
Administrative/Regulatory barriers	14	12.7
Constraints on student supervision (especially during recess)	32	29.1
Inability/Failure of collaboration among educators	8	7.3
Lack of provision within the curriculum	16	14.5
Reluctance toward innovation implementation	20	18.2
Educators' lack of familiarity with relevant practices	30	27.3
Other	2	1.8

Having selected at least one item (constraint/barrier) from a list, the participants report that the obstacles they face are primarily structural and organizational in nature. Insufficient facilities (72.7%) and Deficiency in resources (63.6%) constitute the dominant problems. Time constraints follow closely (54.5%). Conversely, obstacles related to attitudes, such as Reluctance toward innovation implementation (18.2%) or the Inability/Failure of collaboration among educators (7.3%), are at lower levels, confirming that the challenges are primarily institutional rather than individual.

4.1.7. Extent of School Common Areas' Pedagogical Integration

Table 8 presents the extent to which school common areas are integrated into educators' regular instructional practice.

Table 8

Extent of School Common Area Integration in Instruction (N = 110)

<i>Level of Integration</i>	<i>n</i>	<i>%</i>
Never	2	1.8
Rarely (1–2 times per year)	32	29.1
Periodically (1–2 times per month)	48	43.6
Frequently (at least once per week)	24	21.8
Consistently (are part of my regular practice)	4	3.6

Despite almost all educators having utilized common areas, the Extent of Integration into their regular practice remains restrained. Most participants integrate them Periodically (1–2 times per month) (43.6%) or Rarely (29.1%). Only a small percentage (3.6%) reports that the utilization of these spaces constitutes a Consistent/Regular part of their practice, indicating that usage is often opportunistic rather than systematic.

4.1.8. Student response and needs addressed

Table 9 presents the perceptions of educators regarding students' reactions when instruction is conducted outside the classroom.

Table 9

Students' Reaction to Non-Classroom Instruction (N = 110)

<i>Student Reaction</i>	<i>n</i>	<i>%</i>
They are more engaged in the instructional activities	18	16.4
They exhibit greater joy / enthusiasm	106	96.4
They collaborate with one another more actively	44	40.0
They experience difficulty concentrating	20	18.2
Behavioral issues are observed	10	9.1
I observe no difference	0	0

Instruction conducted outside the classroom (Table 9) seems to have positive impact on students. A vast majority of participants (96.4%) observed greater joy/enthusiasm in students. Students also exhibited increased engagement (16.4%) and collaboration (40.0%). The students' needs that educators believe are best addressed by school common areas are "Release from instructional load" (83.6%), "Physical Activity" (70.9%), and "Free expression/creativity" (70.9%). These findings underscore the critical role of school common areas in addressing the students' psychosomatic and emotional burden. The participants were asked how they perceive students to respond when instruction is conducted outside the classroom by selecting at least one by a list.

Then, the participant teachers were called to identify which students' needs they believe are best addressed by school common areas by selecting up to three choices by a given list (see Table 10).

Table 10

Students' Needs Best Addressed by School Common Areas

<i>Student Need</i>	<i>n</i>	<i>%</i>
Physical Activity	78	70.9
Release from instructional load	92	83.6
Group Cohesion	56	50.9
Social interaction	66	60.0
Tranquility	22	20.0
Concentration	16	14.5
Personal space	10	9.1
Free expression / creativity	78	70.9
Aesthetic Development	22	20.0
Environmental awareness	32	29.1
Adaptation to the school environment	16	14.5

4.1.9. Non-parametric group differences in the extent of integration of school common areas into teaching practice, by selected teacher and school characteristics

Table 11 presents the results of non-parametric tests (Mann-Whitney U and Kruskal-Wallis H) used to examine whether the extent of integration of school common areas into pedagogical practice (the 5-level ordinal measure presented in Table 8) differs across key teacher and school-context characteristics. Given the ordinal nature of the dependent variable and the markedly uneven group sizes across categories, non-parametric tests were employed. Additionally, Table 11a presents the results of the post-hoc pairwise comparisons (Mann-Whitney U tests) conducted for the variable "Position in the school" ($k = 3$), which emerged as a statistically significant differentiator in the initial Kruskal-Wallis test. To control the family-wise Type I error rate across the three comparisons, the Bonferroni correction was applied, setting the adjusted level of significance at $\alpha_{adj} < .0167$ ($\alpha_{original}/3$). The table reports the Mean Ranks, the Z test statistic, the adjusted p -value (p_{adj}), and the effect size r for each pair of comparisons.

Table 11

Group differences in the extent of integration of school common areas into teaching practice (Table 8) across teacher and school characteristics (Mann-Whitney U / Kruskal-Wallis; $N = 110$)

Variable	Test	U/H	df	p	Effect size*
Gender	Mann-Whitney U	$U = 1186.00$	-	.465	.000
Position in the school	Kruskal-Wallis	$H = 15.18$	2	.001	.139
Years of service	Kruskal-Wallis	$H = 6.86$	3	.076	.063
School area	Kruskal-Wallis	$H = 4.16$	2	.125	.038
School type	Kruskal-Wallis	$H = 2.34$	2	.311	.021

Note. Extent of integration was measured using a five-point ordinal scale (see Table 8). *(r for Mann-Whitney; η^2 for Kruskal-Wallis)

Table 11a

Pairwise Comparisons of "Position in the school"

Comparison (Position Groups)	N	Mean Rank (Higher)	Mean Rank (Lower)	Z	p_{adj}	Effect size* ($r / \eta^2 H$)
Director vs No Position	106	67.03 (Director)	45.94 (No Position)	-3.61	< .001***	-0.35
Assistant Director vs Director	42	23.50 (A. Director)	21.29 (Director)	-0.37	1.000	-0.06
Assistant Director vs No Position	72	55.50 (A. Director)	35.38 (No Position)	-2.01	.132	-0.24

Note. Results were derived from post-hoc Mann-Whitney U tests, using the Bonferroni adjustment ($\alpha_{adj} < .0167$). N represents the total combined sample size for the specific pairwise comparison. The effect size r was calculated as $Z/\sqrt{N}$. The subgroup of Assistant Directors was small ($n=4$), which necessitates cautious interpretation. *** $p < .001$.

As shown in Table 11, gender did not differentiate the extent of integration ($U = 1186.00$, $p = .465$, Effect size $\approx .000$). School area ($H = 4.16$, $df = 2$, $p = .125$, $\eta^2 = .038$) and school type ($H = 2.34$, $df = 2$, $p = .311$, $\eta^2 = .021$) were also not associated with statistically significant differences, exhibiting small effect sizes. Years of service showed a non-significant trend ($H = 6.86$, $df = 3$, $p = .076$, $\eta^2 = .063$), representing a medium effect size based on Cohen's guidelines for η^2 . In contrast, position in the school emerged as a statistically significant differentiator ($H = 15.18$, $df = 2$, $p = .001$, $\eta^2 = .139$), indicating that teachers holding responsibility/leadership roles report systematically different levels of integration of school common areas into their practice. This finding is associated with a large effect size (close to Cohen's threshold of .14), confirming the practical significance of the difference.

An additional Kruskal-Wallis test by specialty (not shown in Table 11) was statistically significant ($H = 29.03$, $df = 10$, $p = .001$); however, this result should be interpreted cautiously because several specialty categories were represented by very small subgroups (e.g., $n = 2$), which makes rank-based comparisons statistically fragile and limits substantive interpretability. For this reason, specialty is retained as an exploratory finding rather than a strong basis for generalization.

Not all variables from Table 1 were carried into this inferential comparison for methodological reasons. First, variables such as specialty and level of studies include many small subgroups (e.g., $n = 2-4$), which violates the practical requirements for stable rank-based comparisons and produces results that are statistically fragile and difficult to interpret meaningfully. Second, running multiple group tests across many sparse categories increases the risk of inflated Type I error without adding substantive interpretive value.

Therefore, Table 11 focuses on the most analytically interpretable and sufficiently populated grouping variables (gender, position, years of service, school area, school type) to provide a robust and transparent mapping of group differences in the extent of integration.

A series of pairwise comparisons (Table 11a) using Mann–Whitney U tests with a Bonferroni adjustment was subsequently performed to determine the locus of the significant difference (see Table 11a). The adjusted significance level was set at $\alpha_{adj} \approx .0167$. The analysis revealed a statistically significant difference only between the Director group (Mean Rank = 67.03) and the No Position group (Mean Rank = 45.94) ($Z = -3.606$, $p_{adj} < .001$). Directors reported a systematically higher extent of integration of school common areas into their practice compared to teachers with no leadership role. This difference is associated with a medium to large effect size ($r = -.35$). The comparisons between the Director and Assistant Director groups ($p_{adj} = 1.000$, $r = -.06$) and the Assistant Director and No Position groups ($p_{adj} = .132$, $r = -.24$) were not statistically significant after adjustment. It should be noted that the subgroup of Assistant Directors was very small ($n=4$), which limits the reliability of the comparisons involving this group.

4.1.10. Correlations between teacher attitudes and integration practices

Table 12 presents Spearman's rho correlations examining whether teachers' pedagogical attitudes are associated with the extent to which they integrate school common areas into teaching practice (five-level ordinal measure; see Table 8). Spearman's rho was selected a priori because both the attitude items and the integration indicator are ordinal.

Table 12

Spearman's rho correlations between the extent of integration of school common areas into teaching practice and teachers' pedagogical attitudes (N = 110).

Attitude	ρ	p
Q1a. "In general, school common areas affect students' behavior and mood"	.108	.262
Q1b. "School corridors/hallways may be leveraged for pedagogical activities"	.154	.109
Q1c. "Elementary School students necessitate 'calm zones' within the school environment"	-.013	.895

Note. The extent of integration refers to the ordinal (5-level) measure reported in Table 8 ("Extent of School Common Area Integration in Instruction")

As shown in Table 12, no statistically significant associations were observed between the extent of integration and the attitude items (Q1a: $\rho = .108$, $p = .262$; Q1b: $\rho = .154$, $p = .109$; Q1c: $\rho = -.013$, $p = .895$). Overall, the results suggest that endorsement of general pedagogical value and space-related beliefs does not, by itself, translate into more frequent integration of common areas in routine teaching practice within this sample.

4.1.11. Correlation between geographic context and perceived obstacles in common area utilization

Table 13 summarizes a series of Pearson's chi-square (χ^2) tests of independence examining whether perceived obstacles to the pedagogical use of common areas differ by school area (urban, semi-urban, rural). Each obstacle (multiple-response item) was tested separately against school area.

Table 13

Associations Between School Area and Perceived Obstacles to Common Area Utilization (Pearson's χ^2 ; N = 110)

Perceived obstacle	χ^2	df	p	V
Deficiency in resources	13.887	2	.001	.36
Insufficient facilities	1.784	2	.410	.13
Supervision constraints	9.755	2	.008	.30
Administrative/regulatory obstacles	7.028	2	.030	.25
Reluctance toward innovation implementation	6.706	2	.035	.25
Absence of such areas in the school	5.412	2	.067	.22

Note. Critical value for statistical significance is $\alpha = .05$. Cramér's V effect sizes are interpreted as: Small (0.10), Medium (0.30), Large (0.50).

As shown in Table 13, school area was significantly associated with several reported obstacles. Deficiency in resources was significantly more frequently reported in rural schools ($\chi^2(2) = 13.887$, $p = .001$), representing a medium to large effect size ($V = .36$). Supervision constraints also differed by school area ($\chi^2(2) = 9.755$, $p = .008$), associated with a medium effect size ($V = .30$). This small-to-medium effect was also observed for administrative/regulatory obstacles ($\chi^2(2) = 7.028$, $p = .030$, $V = .25$) and reluctance toward innovation implementation ($\chi^2(2) = 6.706$, $p = .035$, $V = .25$). In contrast, insufficient facilities was not

significantly associated with school area ($\chi^2(2) = 1.784$, $p = .410$, $V = .13$), showing a small effect. The association for absence of such areas did not reach statistical significance ($\chi^2(2) = 5.412$, $p = .067$, $V = .22$), although it showed a small to medium effect size.

4.1.12. Association between student needs and implemented pedagogical actions

Table 14 presents a cross-tabulation and Pearson's chi-square (χ^2) test examining whether recognition of students' need for de-stressing is associated with the implementation of relaxing activities in school common areas.

Table 14

Association between Recognized Need for Student De-stressing and Implementation of Relaxing Activities (N = 110)

Association between Recognized Need for Student De-stressing and Implementation of Relaxing Activities (N = 110)						
Need for De-stressing	Implemented Relaxing Activities				Total	
	Yes		No			
	n	%	n	%	n	%
Yes	32	94.1	60	78.9	92	83.64
No	2	5.9	16	21.1	18	16.36
Total	34	100.0	76	100.0	110	100.0

Note. Values are n (column %) for the two implementation columns; values in the "Total" column are n (% of N).

A chi-square test of independence examined whether recognizing students' need for de-stressing (Yes/No) is associated with implementing relaxing activities in school common areas (Yes/No). The association was statistically significant, $\chi^2(1, N = 110) = 3.95$, $p = .047$, $\phi = .19$, indicating a small effect. Column percentages show that 94.1% of educators who implemented relaxing activities also recognized the need for de-stressing, compared with 78.9% among those who did not implement such activities. At the same time, an implementation gap remains: among educators who recognized the need ($n = 92$), 65.2% (60/92) reported not implementing relaxing activities.

4.2. Qualitative Analysis

The final part of the study involved a qualitative component designed to capture deeper insights into educators' experiences, needs, and ideal scenarios for common area utilization. Participation in all qualitative questions was optional. The analysis adopted a thematic approach, where the Unit of Analysis was defined as the Theme/Topic Instance. This method allowed for the systematic clustering of rich, open-ended textual data into principal categories, facilitating the exploration of underlying perceptions, priorities, and aspirations concerning the pedagogical potential of school common areas.

4.2.1. Qualitative analysis of desired space redesign

Table 15 presents the results of a Qualitative Thematic Analysis of the specific common areas educators

Table 15

Qualitative Thematic Analysis of Desired School Common Areas Redesign (N = 25)

Thematical Category and Space	n	Examples
The Space to be Redesigned		
Library	8	"school library", "multi-functional literacy space"
Schoolyard / Courtyard / Outdoor Area	9	"schoolyard/playground", "part of the schoolyard/outdoor area"
Vacant Room / Multipurpose Hall	6	"multipurpose hall", "a vacant room", "rooms that are not in use"
School Entrance / Foyer	1	"the entrance"
General/Open Spaces	1	"open spaces with partitions"
Manner of Pedagogical Functionality		
Experiential Activities & Nature	6	"garden, compost", "small farm with domestic animals", "flowerbeds with plants"
Calm Zone / De-escalation Space	5	"calm zone"
Workshop / Art Exhibition	4	"visual arts workshop-painting exhibition"
Activity Corners	4	"activity corners by subject area", "fairy tale reading corner"
Social/Collaborative Activity	2	"games that promote collaboration"
Architectural/Aesthetic Upgrade	4	"more student-friendly", "ample light and cheerful colors", "without railings/fences"

would ideally redesign and the way they would redesign them, based on an open-ended question (N=25). The findings are classified into two major categories, the "Space to be Redesigned" and the "Manner of Pedagogical Functionality".

Participants were asked (Q.11) to identify a space in their school that they would choose to redesign and describe how they would render it more pedagogically functional. The Qualitative Thematic Analysis of desired redesigns (Table 15) strongly reinforces the quantitative findings, highlighting a clear preference for flexible learning environments that support both activity and concentration. The areas most targeted for redesign are the Schoolyard/Outdoor Area (n=9) and the Library (n=8), followed by converting Vacant Rooms (n=6) into usable spaces. The desired pedagogical functionality is concentrated on two main themes: experiential activities and nature (such as gardens and small farms, n=6) and emotional regulation, specifically the creation of dedicated Calm Zones / De-escalation Spaces (n=5). These findings confirm that educators primarily seek to transform common areas into environments that address students' needs for physical activity, engagement with nature, and essential psychological relief.

4.2.2. Thematic categories of instructional function for school corridors

Table 16 presents the results of the analysis of educators' suggestions for the functional conversion of the corridor/hallway into a learning environment (N = 31). The analysis aimed to explore the untapped pedagogical potential of common areas, with the proposed applications clustering into four principal thematic categories. These clusters delineate the diverse ways teachers envision transforming these traditionally functional spaces into zones dedicated to display, literacy, movement, and collaborative instruction.

Table 16

Educators' Envisioned Uses for School Common Areas (N = 31)

<i>Thematic Category and Reference</i>	<i>n</i>	<i>Examples</i>
Exhibition & Work Display		
Visual Arts Works / Painting	9	"space for visual arts exhibition", "painting exhibition"
Posting of Assignments / Projects	8	"posting of invitations / announcements", "exhibition of material from relevant project activities"
Photography / Maps	2	"observation of maps and photographs", "photography exhibition"
Interactive Activities		
Games & Physical Expression	3	"games of physical expression and improvisation", "floor games"
Artistic Interventions	2	"space for artistic activities and visual interventions", "graffiti"
Embellishment	1	"to create, by designing and decorating the walls"
Social & Affective Function		
Exchange of Views / Thoughts	2	"space for students' exchange of views", "to post their thoughts"
Relaxation / Socialization	2	"Seating area with board games"
Education (History/ Aesthetics)	1	"historical and aesthetic"
Unsuitable for use		
Unsuitable	1	"I do not consider the corridor an appropriate space for utilization"

The qualitative analysis of educators' visions for corridor utilization highlights a strong desire to transform these traditionally functional spaces into zones with diverse pedagogical utility. The most dominant cluster of suggestions is "Exhibition & Work Display" (n=19), where teachers envision using corridors primarily for showcasing student work, such as visual arts and project materials, effectively using the space as a "third teacher". This is followed by proposals for Interactive Activities (games, physical expression, n=6) and "Social & Affective Function" (relaxation and exchange of views, n=5), confirming the recognition of the corridor's potential for de-stressing, movement, and socialization. This collective vision underscores the fact that teachers view the corridor as an untapped resource capable of supporting learning and emotional regulation outside the confines of the classroom.

5.2.3. Qualitative analysis of observed student initiatives for school common areas utilization

Table 17 presents the categorization of ideas or initiatives originating directly from the students themselves regarding the utilization of school common areas ($N = 27$ optional records). This analysis aimed to capture "bottom-up" perspectives, revealing students' active desires for engagement with the school environment in ways that often transcend the formal curriculum.

Table 17

Categorization of Student Ideas for Non-Classroom Instruction

<i>Idea Category</i>	<i>n</i>	<i>Examples</i>
Nature & Environment	8	"planting seeds and watering plants", "creation of a vegetable garden"
Visual/ Artistic Action	5	"painting green boards", "painting on walls/murals"
Activities & Games	3	"improvisations and theatrical games", "creation of a space for hide-and-seek with cardboard boxes"
Schoolyard Equipment/Design	2	"gymnasium equipment in the schoolyard"
Indoor Space	1	"utilization of the library"
No/No Idea	8	-

The qualitative analysis of student-driven initiatives demonstrates that students' ideas for utilizing common areas cluster around themes of natural immersion and creative expression, often transcending the formal curriculum. The most frequent suggestions relate to "Nature & Environment" ($n=8$), such as planting and creating vegetable gardens, highlighting a strong desire for experiential learning and engagement with the natural world. This is followed by proposals for Visual/ Artistic Action ($n=5$), including painting murals, which underscores a need for free, visual expression and ownership of the physical space. Although a portion of responses reported no observed initiatives ($n=8$), the collective student vision confirms a preference for active, self-directed learning and a desire to see common areas transformed into dynamic, expressive environments.

5.2.4. Thematic analysis of ancillary data

Table 18 presents the categorization of the voluntary comments received from participants ($N=4$) in the final open-ended qualitative question, which clustered into four principal thematic categories, providing valuable ancillary data regarding the research context.

Table 18

Categorization of Voluntary Comments ($N = 4$)

<i>Thematic Category</i>	<i>n</i>	<i>Statement</i>
School Environment & Well-being	1	"redesigning school spaces with student safety and tranquility in mind"
Resource Constraints	1	"small spaces in small-class schools, as well as time"
Support Space Needs	1	"spaces for school social workers and psychologists to work, suitably configured for students and their parents. we are almost thrown into unsuitable spaces even though we are permanent teachers"
Survey Feedback	1	"innovative topic, with targeted questions. congratulations!!!"

Despite the small sample size ($N = 4$), the voluntary comments provide valuable supplementary data that align with core themes observed throughout the study. The comments touched upon overarching concerns about the school environment and student well-being (e.g., redesigning spaces for safety and tranquility) and reinforced the recurring issue of structural constraints ("Resource Constraints" category, mentioning small spaces and time limitations). Crucially, one comment highlighted a specific, institutional need not frequently discussed in the main analysis: the significant lack of suitable spaces for support staff (social workers and psychologists), stressing that even permanent staff are often relegated to inappropriate settings. Finally, one comment offered positive feedback on the Survey Design, suggesting the topic and questions were innovative and targeted.

4.3. Synthesis of Findings: Quantitative and Qualitative Analysis of School Common Area Utilization

This study provides a comprehensive view of the utilization of school common areas by integrating quantitative patterns (including significant and non-significant results) with qualitative context. The most pronounced finding is a structural discrepancy between teachers' high pedagogical conviction and the reported reality of the school environment. Teachers expressed very high agreement (means > 4.3/5) regarding the impact of common areas on student behavior, mood, and safety; however, perceived adequacy of these spaces received the lowest mean score ($M = 2.96$), indicating that such areas are viewed as only marginally sufficient—or insufficient—for systematic instructional use. This points to a fundamental gap between professional belief and available resources.

A key quantitative finding concerns factors associated with the extent of integration of school common areas into routine practice. Using non-parametric group comparisons (Mann-Whitney U / Kruskal-Wallis H; Table 11), the extent of integration did not differ by gender ($p = .465$), school area ($p = .125$), or school type ($p = .311$), while years of service showed a non-significant trend ($p = .076$). In contrast, position in the school emerged as a statistically significant differentiator ($H = 15.179$, $p = .001$), suggesting that educators in responsibility/leadership roles report systematically different levels of integration. Complementarily, associations between attitudes and integration were examined using Spearman's ρ , yielding no statistically significant correlations between integration and the selected attitude items (Table 12).

A series of χ^2 tests indicated clear geographic inequalities in perceived barriers (Table 13). Deficiency in resources was significantly associated with school area, $\chi^2(2) = 13.887$, $p = .001$, with rural schools disproportionately reporting this obstacle. By contrast, administrative/regulatory obstacles were reported more frequently in urban schools ($p = .030$). Overall, these results confirm that constraints on common-area utilization vary qualitatively by geographic and organizational context.

Associations between recognized student needs and reported actions further suggest that the belief-practice link is selective. Specifically, recognizing students' need for de-stressing was associated with implementing relaxing activities, $\chi^2(1) = 3.950$, $p = .047$ (see Table 14), indicating that teachers who endorse this need are more likely to report calming-oriented practices, even under constrained conditions.

The qualitative strand strongly supports the quantitative picture regarding redesign priorities. Teacher proposals overwhelmingly emphasized outdoor/nature areas (e.g., gardens) and the creation of calm zones. In addition, student-initiated ideas regarding common-area use centered on nature/environmental initiatives and visual/artistic activities (see Table 17), underscoring students' expressed desire for connection with the natural environment and creative expression.

Overall, the utilization of school common areas is characterized by pedagogical acceptance coupled with structural and contextual constraints. The discussion that follows elaborates the theoretical and practical implications of these findings, focusing on the structural gap between pedagogical conviction and material/organizational feasibility, the role of responsibility/leadership position in shaping integration, and geographic inequalities in reported obstacles, which collectively challenge the systematic integration of school common areas.

5. Discussion

The present study investigated the relationship between educators' pedagogical perceptions, utilization practices, and the structural constraints associated with school common areas. The most central finding emerging from the synthesis of quantitative and qualitative data is the structural disparity between the high theoretical acceptance of the spaces' pedagogical value and the declared inadequacy of available resources. This fundamental mismatch is the key to interpreting all subsequent results. Studies highlight that non-classroom spaces, particularly school gardens, provide authentic learning environments that enable experiential activities difficult to conduct indoors, enhance the meaningfulness of classroom instruction, and support interdisciplinary learning, including in subjects such as geography (Dyg & Wistoft, 2018; Williams & Dixon, 2013). Fahed and Salim (2020) argue that non-school activities play a major role in learning. Concurrently, Bowlin (2022) - although referring to higher education - found that students' non-classroom involvement is significantly linked to their social integration. Both align with the utilization of school common areas in the current research.

The overwhelming agreement among educators that the design, aesthetics, and safety of school common areas influence student behavior and mood confirms the deep-rooted belief in the principle of the "Third Teacher" ("Terzo Educatore"), a concept central to educational philosophies such as Reggio Emilia (Rosalinda & Garzia, 2022). However, this theoretical acceptance stands in direct contrast to the perceived inadequacy of these spaces. This perception of environmental resource deficiency explains why space

utilization remains primarily opportunistic. Under the lens of the Theory of Planned Behavior, while the educators' attitude toward the practice is positive, the behavior (utilization) is obstructed by Perceived Behavioral Control, which is defined by insufficient facilities and lack of resources (Hagger, 2022; La Barbera & Ajzen, 2021).

The convergence of descriptive and qualitative evidence indicates that calmness and de-escalation constitute a central priority in teachers' spatial thinking. The need for calm zones and release from instructional load emerges as a dominant student need addressed through common areas. Qualitatively, calm zones and de-escalation spaces also appeared as a prominent redesign proposal. Taken together, these strands suggest that the psycho-emotional function of common areas is perceived as at least as important as their strictly didactic function, especially under conditions of limited infrastructure. This finding appears to reflect a broader trend both inside and outside the classroom (Brasfield et al., 2024; Cascio González, 2023).

The analysis demonstrated that the obstacles faced by educators are not homogeneous but differ according to their geographic and organizational context. Rural schools predominantly emphasize material and supervision constraints, suggesting structural and resource scarcity. Urban schools report more frequent administrative and regulatory obstacles. This geographic heterogeneity underscores the inadequacy of one-size-fits-all policies for improving school spaces. Interventions in rural areas must prioritize resource enhancement and time allocation, while those in urban settings require flexibility in space usage regulations and simplification of procedural barriers (Abidemi & Bilikis, 2023; Welsh, 2021).

The association between stated student needs and reported pedagogical actions suggests a targeted translation of priorities into practice. Specifically, recognizing the need for student de-stressing was associated with the implementation of relaxing activities. This indicates that, when teachers perceive a direct psycho-emotional need, they are more likely to report corresponding calming-oriented practices, even under structural constraints (Bailey, 2022; Henriksen & Gruber, 2024).

The findings conclude that while educators are fully aware of the pedagogical value of school common areas, their systematic integration into practice is impeded by institutional and structural constraints. Utilization remains primarily opportunistic and focused on addressing the students' psycho-emotional burden. Teachers' reports of student-related priorities and student-initiated ideas seem to underscore the desire for connection with nature and creative expression.

6. Conclusion

The analysis of the data in this study allows for a comprehensive response to the research questions initially formulated within the methodological framework, highlighting critical aspects of the relationship between school space and pedagogical practice.

Regarding Research Question 1 (teachers' perceptions), educators expressed very high endorsement of the pedagogical value of school common areas and of the influence of design, aesthetics, and safety on students' behavior, mood, and sense of security, while simultaneously reporting low perceived adequacy of available common areas for instructional use, indicating a clear gap between pedagogical conviction and spatial/material conditions. As to Research Question 2 (forms and extent of use), almost all teachers reported having used a common area at least once; however, integration into routine practice remained largely opportunistic and infrequent, with most respondents indicating rare or periodic use rather than systematic incorporation into planning. Considering Research Question 3 (student needs best served), teachers primarily associated common-area use with socio-emotional and psychosomatic needs -especially students' release from instructional load, opportunities for physical activity, and free expression/creativity- while also reporting enthusiasm and positive engagement when instruction moved outside the classroom. Regarding Research Question 4 (obstacles), the dominant barriers were structural and organizational, centred on insufficient facilities, lack of resources/materials, and time constraints, whereas teacher-level attitudinal barriers were reported less frequently. As to Research Question 5 (differences by characteristics), group differences in the extent of integration were limited overall, with leadership/responsibility position emerging as a significant differentiator, while geographic context was most clearly associated with differentiated obstacle profiles (e.g., material/time constraints more salient in rural settings and regulatory/administrative constraints more salient in urban settings).

Taken together, the findings portray school common areas as "valued but under-enabled" pedagogical environments: teachers strongly recognize their educational potential, particularly for socio-emotional support and students' well-being, yet their systematic integration into teaching practice is constrained by material inadequacy, time/supervision demands, and context-specific institutional conditions. This mismatch helps explain why use remains widespread but largely non-routinised. Therefore, strengthening

the pedagogical role of common areas in primary schools likely requires targeted, context-sensitive support—combining low-cost spatial adjustments, clearer organizational routines, and enabling leadership/regulatory practices—so that common areas can function more consistently as intentional extensions of the classroom rather than occasional, ad hoc settings.

Additionally, this study relied on self-report data, which may be influenced by social desirability and may not fully reflect actual behavior in situ. The participant pool was geographically restricted and obtained through convenience sampling, which limits external validity and generalizability. In addition, the use of a questionnaire constrains depth and may not capture the full complexity of school-level processes shaping the use of common areas.

The findings have direct implications for school leadership and policy. First, schools may prioritize low-cost, high-impact changes that facilitate psycho-emotional support (e.g., designated calm zones, structured routines for safe supervision, and flexible use of outdoor/nature-based areas), aligning teachers' strong pedagogical endorsement with feasible implementation. Second, interventions should be geographically sensitive: rural schools require targeted resourcing (materials and time allocation), whereas urban schools may benefit more from streamlined procedures and clearer regulatory guidance that enables flexible use of shared spaces. Third, given that utilization remains largely opportunistic, professional development and school-level planning can explicitly integrate common areas into instructional design to move from occasional use to systematic practice.

Future studies could use direct observation to validate self-reported practices, examine how leadership styles shape schools' capacity to overcome constraints, and evaluate the effectiveness of targeted interventions designed to address geographic heterogeneity.

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