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Innovation Plans in Portuguese Schools: The Importance of the Aspects and Locus of Action on the Slow Path to Metamorphosis

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Abstract

Academic failure and social inequalities are becoming more prevalent in schools. While knowledge has evolved and society has undergone significant transformation, schools have largely remained structured around a uniform model applied indiscriminately to all. In Portugal, efforts were made to initiate change through the conceptualisation and implementation of innovation plans to alter the prevailing grammar of schooling, prompting an inquiry into whether these initiatives yielded the intended outcomes. To this end, a case study was conducted in two such schools, aiming to capture the perspectives, ideas, and perceptions of various stakeholders: students and teachers through questionnaires, coordinating teachers via narrative accounts, and school leaders through semi-structured interviews. The findings reveal that the contexts of implementation, the scale of the initiative, and the number of schools involved significantly influence both practices and leadership outcomes. Nonetheless, despite these constraints, the innovation plans facilitated the emergence of more collaborative dynamics and the creation of more meaningful learning environments, wherein students assumed a more active role in their educational processes. The results further indicate that these innovation plans encountered obstacles rooted in entrenched professional and organisational cultures, which hindered profound changes in the structuring of teaching and learning practices.

Keywords: pedagogical innovation; innovation plans; educational change; grammar of schooling

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1. Introduction

According to A. Nóvoa (2019), contemporary schooling appears directionless and misaligned, revealing a disconnection from the demands and dynamics of the present era. UNESCO (2022) supports this view by identifying "patterns of disinterest and dropout across all educational levels" (p. 9), which may be attributed to the structural inadequacy of the prevailing school model. This paradigm of "teaching everyone as if they were one" (Barroso, 2004) compromises the capacity of educational institutions to foster meaningful and contextualised learning experiences tailored to each student. When envisioning the future of education by 2050, UNESCO (2022) advocated for the transcendence of a singular, uniform school model, proposing a profound transformation of educational spaces and times, as advocated by Edgar Morin, who strongly believes that there is a crucial need for a metamorphosis (Morin, 2010). The aim is to cultivate collaborative and mutual learning environments centred on the relevance and value of education. Building a culture of collaborative work becomes pivotal for the development of learning networks, innovation,

and reflective practice, leveraging digital resources wherever possible and promoting skills that ensure broad and equitable access to knowledge.

According to the European Commission (2018), innovation represents a promising pathway for transforming educational practices and developing essential skills. In this regard, Schleicher (2018) cautions that such transformations cannot rely solely on political leadership. For Schleicher, change must emerge from within the school itself, involving the teachers, management bodies, and other educational stakeholders in the processes of design, transformation, and innovation. Authors such as Courtney and Mann (2020) support this notion, asserting that change entails the adoption of a new "grammar of schooling" (Tyack & Tobin, 1994), which, according to Perrenoud (2002), requires the mobilisation of a broad range of individuals within the educational community.

In this vein, Thurler (2001) emphasises that innovation is not possible while maintaining a homogeneous view of schools, as each school constitutes a "living space with its own culture" (p. 89). Similarly, Bolívar (2012) argues that educational change must be generated within each school, stressing the importance of "empowering the educational institution to develop its own innovative culture" (pp. 10–11).

In Portugal, several schools sought to break away from the traditional model through the conceptualisation and implementation of innovation plans. These plans resulted from a preliminary experimental phase initiated in 2016/2017 that involved six schools invited by the Directorate General for Education (Direção-Geral da Educação) (DGE), which served as the testing grounds for new pedagogical and organisational approaches.

Following this initial experimental phase, the initiative was extended to all schools under the provisions of Decree Law No. 55/2018[1] passed on 6 July. This legal framework, reinforced by Ordinance No. 181/2019[2] passed on 11 June, enabled each school, through the development of an innovation plan, to manage up to 25% of the core curriculum matrices. Such flexibility aimed to allow schools to implement and develop measures geared towards improving the quality of learning and enhancing each student's educational success.

Within this policy framework, Martins et al. (2025a, 2025b) conducted two studies focused on content analysis of 66 innovation plans, drawn from the total of 88 implemented during the 2022/2023 school year. The first study (Martins et al., 2025a) examined the social rationale underpinning the innovation plans, particularly the vision that upholds them. The authors concluded that the primary issue motivating the adoption of these plans was mostly the heightened awareness of the need to reduce academic failure.

The second study (Martins et al., 2025b) delved deeper into the organisational and pedagogical dimensions of the plans, corroborating some of the previous findings. It was observed that, despite the intention to innovate, schools did not enact significant changes to the grammar of schooling. There was limited investment in structural aspects such as top and middle leadership, the school environment, teacher allocation to students' groups, spatial organisation, the creation of learning networks, and collaborative working practices among teachers. Although the curriculum was subject to intervention, the changes were found to be insufficiently personalised and remained, in many cases, uniform across all students—potentially compromising its effectiveness and relevance.

Given these findings, it becomes pertinent to deepen the understanding of the actual implementation of the measures prescribed in the innovation plans and their impact on educational practices. It is therefore essential to analyse how these measures were enacted and to explore how they were interpreted and experienced by the various school participants—namely, headteachers, teachers, and students. This analysis will help elucidate the dispositions and sentiments evoked, as well as the observed and generated effects of implementing the innovation plans, thereby enabling an assessment of their relevance, effectiveness, and sustainability within the school context.

2. Method, Context, and Participants

The innovation plans could potentially disrupt the traditional grammar of schooling, which remains deeply embedded in the pedagogical practices of contemporary schooling. Within this framework, the present study aims to understand the extent to which these plans enable a transformation in the organisation of teaching and learning and improve students' learning opportunities.

To this end, we formulated a set of guiding research questions:

1. Which organisational (e.g., leadership, school culture, and environment) and structural aspects (e.g., curriculum organisation, time, space, and student groupings) were considered in the implementation of a school model distinct from traditional schooling?
2. How is the learning environment characterised in terms of (a) teaching/learning time, space, and student groupings and (b) classroom environment, teaching strategies, pedagogical relationships, curriculum, and assessment processes?
3. How is teaching practice characterised (working methods, curriculum management, and teaching and assessment strategies)?
4. What difficulties, challenges, effects, and limitations are identified by headteachers, teachers, and students in the implementation of innovation measures?

This study is exploratory in nature and is situated within the interpretative paradigm as it seeks to understand the meanings attributed by individuals to their experiences in specific contexts (Morgado, 2012). The methodological approach adopted is predominantly qualitative, focusing on the treatment and analysis of descriptive data with the aim of interpreting the "intentions and meanings (...) that human beings assign to their own actions, in relation to others and to the contexts in which and with which they interact." (Amado, 2013, pp. 40–41). The chosen method was a case study as it allows for an in-depth analysis of a phenomenon situated within a particular context (Merriam, 1988). In this type of research, as Vale (2004) clarifies, the researcher takes an active and responsible role in data collection and analysis while maintaining an impartial and reflective stance throughout the process.

Data collection took place between March and June, employing a range of techniques designed to address specific objectives, as summarised in Table 1. This methodological diversity will later enable data triangulation, contributing to a more robust and well-reasoned response to the research questions.

Ethical principles were fully upheld throughout the entire research process. All participants were informed of the objectives and procedures of the study and voluntarily signed an informed consent form. Participant anonymity and data confidentiality were guaranteed, and a commitment was made to provide the findings to the educational clusters involved.

Interviews were conducted in person, with both headteachers signing the informed consent and authorising the recording and use of data for the purposes of this study.

Regarding data analysis, the SPSS software 30 was employed to facilitate the rapid processing of closed-ended questionnaire responses. Additionally, a content analysis was conducted on the open-ended questionnaire items, narratives, interviews, and field diaries, following the procedures outlined by Bardin (2013). As Amado (2013) notes, content analysis enables a shift "from a more descriptive and quantitative sense ... to a more interpretative, inferential one ..." (p. 302).

From the 66 innovation plans in effect during the 2023/2024 school year, a selection was made based on predefined criteria: continuity of the plan until 2025, located in the Northern region of Portugal (to facilitate the researcher's travel), the number of innovative dimensions, and the involvement of a significant number of students. Following the application of these criteria and considering the receptiveness of schools/school clusters

to participating in the research study, two school clusters were selected, referred to in this study as X and Y to ensure institutional anonymity. After the school clusters had been selected, informed consent forms and links to the data collection instruments were sent to the two headteachers. They distributed these materials to all the students' parents or guardians, as well as to the teachers of the lower and upper secondary levels. In this way, no participant selection was carried out, and all students and teachers within these educational levels were given the opportunity to take part in the study.

Table 1. Timeline and application of data collection instruments.

Research Question	Data Collection Technique	Objective
(1) Which organisational (e.g., leadership, school culture, and environment) and structural aspects (e.g., curriculum organisation, time, space, student groupings) were considered in the implementation of a school model distinct from traditional schooling?	Interviews with Headteachers	To identify the factors that motivated the adoption of the innovation plan and its focus for changes
	Questionnaires for Students and Teachers	To understand how middle and top leadership intervened and participated during the innovation process, and whether the school culture and climate are conducive to innovation
	Collecting Narratives from Coordinating Teachers	To comprehend their perceptions regarding the focus for changes and the obstacles arising from the implementation of the innovation plan
(2) How is the learning environment characterised in terms of a) teaching/learning time, space, and student groupings and b) classroom environment, teaching strategies, pedagogical relationships, curriculum, and assessment processes? (3) How is teaching practice characterised (working methods, curriculum management, teaching, and assessment strategies)? (4) What difficulties, challenges, effects, and limitations are identified by headteachers, teachers, and students in the implementation of innovation measures?	Interviews with Headteachers	To identify the specific features of the adopted innovation plan, its effects, the feelings it generated, and its overall impact To assess and understand the challenges and difficulties associated with the implementation of the innovation plan, as well as the strategies employed to engage the educational community To clarify aspects emerging from the documentary analysis of the plan itself
	Questionnaires for Students and Teachers	To identify the measures underpinning the adopted innovation plan, its effects, the emotions it elicited, its impact on students' learning, and their perceptions regarding their participation in the innovation process
	Collecting Narratives from Coordinating Teachers	
	Direct Observation	To gather data on institutional dynamics and pedagogical interactions
	Field Diary	To record relevant information for a deeper understanding of the phenomenon under study

Cluster AE_X is situated in a rural context marked by a high unemployment rate, which directly affects the socioeconomic conditions of families. The educational level of most guardians was limited to four years of schooling, and the majority of students—approximately 70%—benefited from School Social Support (Apoio Social Escolar) (ASE) in 2023/2024, particularly in terms of meal provision (Educational Project, 204/2027).

AE_X comprises three educational institutions: one offering education between the 5th and 9th grades, and two providing pre-primary education (ages 3 to 5) and primary education (ages 6 to 10). In total, this cluster comprises 803 students and 100 teachers. The implemented innovation plan is in effect from 2022 to 2026 and encompasses all students and all educational levels within the cluster.

Cluster AE_Y is located in an urban setting and serves a student population with diverse cultural and socioeconomic backgrounds, with approximately 40% of students receiving ASE. This cluster includes nine organisational units, covering around 3000 students and employing 250 teachers.

The innovation plan implemented in this cluster is in effect from 2022 to 2025 and covers all students between the 5th and 9th grades across all schools within the cluster.

Regarding study participants, priority was given to students of the 5th to 9th grades (ages 10 to 15, on average) as these levels are the focus of the innovation plans in both clusters and simultaneously represent stages of education where pedagogical innovation is particularly challenging due to the subject-based organisation and the absence of single-teacher instruction. Accordingly, teachers working within these educational levels were also consulted.

Additionally, the study included the coordinating teachers that were involved in the implementation and development of the innovation plans, as well as the headteacher of each cluster. This decision was made to clarify the aspects emerging from the documentary analysis and to gather data on their perceptions regarding the design, implementation, and experiences of the innovation plans.

In terms of participant representation, as shown in Table 2, in AE_X, approximately 50% of the students and teachers participated. In contrast, the number of participants from AE_Y was not representative, which constitutes a limitation to the data analysis.

Table 2. Number of participants.

Participants	AE_X		AE_Y	
	Total	Nº Inquired	Total	Nº Inquired
Headteacher	1	1	1	1
Coordinating Teachers	6 [1]	2	6 [1]	2
Teachers	70 [2]	35	266	30
Students	344	170	503	34

[1] Department coordinators; [2] includes secondary school.

Regarding the group of participating students, as shown in Table 3, in AE_X, 170 subjects participated, of which, 103 (60.6%) attend the third cycle of basic education (3º CBE, equivalent to the 7th–9th grade). In AE_Y, the sample included 34 participants, mainly from the 3º CBE (N = 19, 55.9%).

Table 3. Characteristics of the participating students.

Grouping	Average Age	Cycle		Knowledge of Innovation Plan		Provided Suggestions During Innovation Plan Design	
		2nd CBE	3rd CBE	Yes	No	Yes	No
AE_X	12.54	67	103	93	77	12	158
AE_Y	12.91	15	19	25	9	1	33

Regarding the implemented innovation plan, some of the participating students claimed to know about it (AE_X = 93; 54.7% and AE_Y = 25; 73.5%). However, a significant

number of these students (AE_X = 158; 92.9% and AE_Y = 33; 97.1%) indicated they had not been presented with any suggestions during the plan's design process.

Among the 170 participating students in AE_X, only 12 (N = 7.1%) made suggestions, while in AE_Y, only 1 student (N = 2.9% of the 34 participants) did so, as indicated in Table 4. Most of these suggestions (AE_X = 5; AE_Y = 1) referred to improvements within the school whose implementation does not require the adoption of an innovation plan. The remaining proposals (N = 3), all from AE_X, included one suggestion related to conducting surveys (N = 2) and another focusing on the integration of subjects (N = 1).

Table 4. Students' suggestions for innovation plan.

Students' Suggestions for Innovation Plan	AE_X	AE_Y
Proposed subject integration	1	
Proposed conducting surveys	2	
Suggested improvements that do not depend on an innovation plan (healthy snacks, new courses, virtual school, digital classrooms, sports equipment, new books, buffet, and classroom improvements)	5	1
Does not remember the suggestions they proposed	2	
No response	2	

In AE_X (Table 5), the sample consists of 35 teachers, aged between 29 and 66 years, with an average age of 51.31 years. Of these, 10 (28.6%) teach in the 2nd cycle, 19 (54.3%) in the 3rd cycle, and 6 (17.1%) in both cycles. Regarding their years of service in the grouping, 9 teachers (25.7%) have been there for less than 1 year, 7 (20%) for 1 to 5 years, 5 (14.3%) for 6 to 10 years, and 14 (40%) for more than 11 years. In terms of professional status, 31 (88.6%) are permanent teachers, and 4 (11.4%) are contracted.

Table 5. Characteristics of the participating teachers.

Grouping	Average Age	Cycle That They Teach			Years in Grouping				Professional Status	
		2nd CBE	3rd CBE	Both	<1	1–5	6–10	>11	Permanent	Contracted
AE_X	51.31	10	19	6	9	7	5	14	31	4
AE_Y	54.13	2	23	5	8	7	3	12	29	1

In AE_Y (Table 5), 30 teachers participated, aged between 42 and 66 years, with an average age of 54.13. Only 2 (6.7%) teach in the 2nd cycle, 23 (76.7%) teach in the 3rd cycle, and 5 (16.7%) teach in both cycles. In relation to their years of service in the grouping, 8 teachers (26.7%) have been there for less than 1 year, 7 (23.3%) for 1 to 5 years, 3 (10%) for 6 to 10 years, and 12 (40%) for more than 11 years. Regarding professional status, 29 (96.7%) are permanent, and only 1 (3.3%) is contracted.

3. Results

To ensure anonymity and systematic organisation of all the data, the following identification protocol was adopted:

- Interviews—ID followed by H (for headteacher) and then X/Y depending on the school cluster the participant belongs to, e.g., IDHX;
- Narratives—ID followed by the number assigned to the respective narrative, then CT (for coordinating teacher), e.g., ID02CT;
- Questionnaires—ID followed by the number assigned to the questionnaire, e.g., ID02.

The organisation and presentation of the results were structured according to the research questions.

3.1. Which Organisational (e.g., Leadership, School Culture, and Environment) and Structural Dimensions (e.g., Curriculum Organisation, Time, Space, and Student Groupings) Were Considered in the Implementation of a School Model Distinct from Traditional Schooling?

3.1.1. From the Students' Perspective

The student sample from both clusters (see Appendix A Table A1) acknowledged the headteacher's concern about listening to students, as evidenced by more than 50% of the respondents agreeing with this statement.

However, regarding sufficient time for interaction among students, divergent perspectives emerged between the two clusters. While approximately 50% of the students from AE_X agreed with this statement, the responses from the AE_Y students were more evenly split between agreement and disagreement.

Concerning the availability of comfortable spaces for student socialisation, over 50% of the AE_X respondents agreed with this assertion. In contrast, the perceptions among the AE_Y students were more varied, with the responses almost evenly distributed between agreement (N = 12) and disagreement (N = 10).

3.1.2. From the Teachers' Perspective

- On Top Leadership

The teachers from AE_X (Table A1) identified a strong connection between the headteacher and the educational community. This was reflected in over 65% of the teachers fully agreeing that the headteacher took the initiative of creating spaces for sharing and discussion during the design phase of the innovation plan, was directly involved in its implementation, was consistently supported by the teachers, fostered a sense of collaborative community, and demonstrated concern for the well-being of all.

The teachers from AE_Y also acknowledged the headteacher's proximity to the school community, albeit less emphatically than those from AE_X.

- On Middle Leadership

Regarding middle leadership (Table A1), the study explored teachers' perceptions of the role of coordinating teachers. In terms of listening skills and availability to assist in problem-solving, more than half of the AE_X teachers (N = 19) fully agreed with these attributes. In AE_Y, the responses were more evenly split between agreement (N = 14) and full agreement (N = 12).

- On School Culture and Environment

The teachers from both clusters reported feeling valued and supported, although agreement levels were higher in AE_X compared to AE_Y (Table A1). Regarding the appreciation of the teaching staff, most AE_X respondents were divided between agreement (N = 16) and strong agreement (N = 16), whereas the AE_Y responses leaned more towards agreement (N = 13).

In terms of support for teachers in implementing new ideas, the teachers from both AE_X and AE_Y were similarly divided between agreement and strong agreement, with AE_X registering a figure close to 50%.

With respect to the definition of shared goals, the majority of the AE_X teachers (N = 19) fully agreed, while agreement levels in AE_Y were below 50%.

Regarding the relationships between teachers, both clusters expressed agreement on this aspect.

However, when it came to the availability of time and space for peer interaction, the AE_X teachers reported higher levels of agreement than their AE_Y counterparts.

3.1.3. From the Perspective of the Coordinating Teachers

According to the coordinating teachers at AE_X, changes were introduced to the school calendar, with the school year structured to include a one-week break after every eight weeks of classes "... for the evaluation of the process and learning outcomes." (ID06CT). Efforts were also made to rethink school spaces, "making it more welcoming and adapted to new needs" (ID05CT). In terms of student grouping, an integrative subject was created to facilitate collaborative work among students "from different classes within the same year group ..." (ID06CT).

At AE_Y, the coordinating teachers reported changes to the school timetable, which involved a reorganisation of learning time and space: "school time was reorganised" (ID02CT) and "learning times and spaces were restructured" (ID04CT).

3.1.4. From the Perspective of the Headteachers

According to the headteacher of AE_X, a deeply rooted collaborative culture exists within the school, encouraging new members to adopt this approach to work: "... this collaborative culture long existed, and so when people arrived at this school, they felt the need to work collaboratively" (IDHX). The school environment is described as being of high quality, with the headteacher expressing strong appreciation for the teaching staff: "... I have the best teachers in the world with me, because they are absolutely fantastic, always ready for any challenge I present to them" (IDHX). In addition, the adoption of a shared leadership model is acknowledged, "... because it is meaningful to each of us" (IDHX), along with a concerted effort to engage the educational community through workshops and sharing panels. The latter are organised with the aim of disseminating the strategic vision and key institutional documents, as well as fostering and strengthening collective commitment. "A journey that was undertaken with absolutely everyone, followed by workshops and panels we held with everyone's participation and keep it to us." (IDHX).

More broadly, the key dimensions addressed at AE_X include the reorganisation of time for students and teachers, space management, teachers' professional development, pedagogical work methods, student groupings, assessment strategies for learning, and curriculum management.

At AE_Y, the school environment is described as "excellent" (IDHY). Sub-coordinators were appointed to support newly arrived teachers and create conditions to facilitate their integration: "I instructed the coordinators to appoint as many sub-coordinators as possible to ensure support, especially for newcomers to the school" (IDHY). The headteacher also demonstrated a commitment to listening to the educational community, both in the "revision of foundational documents" (IDHY) and in the implementation of measures affecting them, such as student timetables, through "a survey of the entire community. Guardians, students, and teachers, regarding the timetable structure" (IDHY).

Overall, AE_Y's innovation plan focused primarily on curriculum transformation and pedagogical work methods, accompanied by changes to teacher and student schedules and teaching practices.

3.2. How Is the Learning Environment Characterised in Terms of Teaching/Learning Time, Space, and Student Groupings?

3.2.1. From the Students' Perspective

The AE_X and AE_Y students (Table A2) showed agreement regarding the presence of diverse resources in classrooms, although the number of respondents who agreed (N = 104) was slightly higher in AE_X compared to AE_Y (N = 16). Regarding the suitability of

timetables for conducting interdisciplinary activities, both clusters showed agreement, with AE_Y reporting higher levels of agreement than AE_X.

Concerning instructional time as a limiting factor for the realisation of more varied activities, the responses from both clusters indicated that approximately 40% of the students agreed, while around 20% disagreed.

In terms of flexible space organisation, around 40% of the AE_X students agreed, whereas nearly 40% of the AE_Y students disagreed.

Regarding the notion that a semester-based academic calendar enhances learning, although agreement levels were below 50%, the highest proportion of students in both AE_X and AE_Y expressed agreement.

Additionally, both clusters indicated that opportunities for learning outside the classroom were limited, and instances where two or more teachers present were rare—these perceptions were even less common in AE_Y.

With respect to student groupings, the AE_X students reported that this practice occurred more regularly, while the AE_Y students stated it was uncommon or even rare.

3.2.2. From the Teachers' Perspective

The AE_X and AE_Y teachers (Table A2) show agreement regarding the suitability of classrooms for flexible student grouping and the availability of resources and materials that support pedagogical work. Both groups acknowledged that student timetables facilitate interdisciplinary activities, although the bigger percentage of teachers consider instructional time a limiting factor for the implementation of diverse activities.

Regarding technological resources, more than 50% of the teachers expressed agreement concerning their availability and use.

In terms of the frequency of changes in space, time, and student groupings (Table A3), these practices were observed to be more regular in AE_X compared to AE_Y.

3.2.3. From the Headteachers' Perspective

According to the Headteacher of AE_X, the school calendar was structured with scheduled breaks and rest periods to promote a balanced school rhythm: "it appealed to each individual's well-being" (IDHX). As for physical spaces, specific areas were created to develop learning aligned with contemporary demands, including a multimedia lab for podcast and television production, a pedagogical kitchen, and an arts room designed to nurture cross-curricular integration. In pre-primary and primary school, multisensory rooms were implemented to promote children's well-being. Outdoors, the development of an ecological pathway around the school and the installation of sports equipment and a small pond reflect investment in the physical environment as a factor in authentic learning.

All classrooms were organised to encourage collaborative work, prompting teachers to adopt this approach: "All our classrooms operate collaboratively. We don't have a single room where the chairs are aligned" (IDHX). Regarding student groupings, the headteacher emphasised that, in addition to complying with Ministry of Education guidelines, the formation of class groups aims to strengthen cohesion, socialisation, and trust. Furthermore, subjects were created to include students from different classes, breaking away from traditional organisational structures: "in the main integrative subject, we have students from all classes mixed together" (IDHX).

At AE_Y, the innovation plan does not include changes to student groupings: "We don't apply flexibility to class groups" (IDHY) nor to physical spaces. Although new spaces were created at the main school site—such as digital education labs, a pedagogical kitchen, and a technological centre—the headteacher clarified that these initiatives were not directly linked to the innovation plan: they were developed "not as a complement to the innovation

plan subjects, nor as a result of the innovation plan" (IDHY). Classroom management and student groupings are the responsibility of teachers, who act autonomously while maintaining class group integrity: "Classroom organisation is always up to the teacher" (IDHY). As for time, the semester-based calendar was already in place prior to the plan, so no changes were made. However, changes in pedagogical work methods led to a reorganisation of student timetables, with Wednesday afternoons reserved exclusively for school projects: "On Wednesdays we don't have lessons, because we run a series of school projects ..." (IDHY), although this measure was not included in the plan.

3.3. How Is the Learning Environment Characterised in Terms of Classroom Environment, Teaching Strategies, Pedagogical Relationships, Curriculum, and Assessment Processes?

3.3.1. From the Students' Perspective

According to the students from both clusters (Table A4), learning assessments are most often conducted using a variety of instruments (group/individual work, oral presentations, and debates). Regarding content, approximately 40% of the AE_Y students reported that it is frequently relevant and aligned with their interests, questions, and curiosities. In contrast, the AE_X students were divided between "rarely" (N = 50) and "often" (N = 48). Additionally, students from both clusters believe that the new subjects contribute to richer and higher-quality learning, and that interdisciplinary projects enable a more active role in the learning process. Group work, interdisciplinary projects, and the use of technological equipment are more frequent in AE_X than in AE_Y.

In terms of pedagogical relationships and assessments (see Table 6), the students from both clusters agree that there is a positive relationship between students and teachers, and that assessments help students learn more effectively.

Table 6. Students' perspective on pedagogical relationships and assessments of their learning.

Aspect	AE_X			AE_Y		
	>Freq.	%	Scale	>Freq.	%	Scale
Good relationship with teachers	96	56.5%	A	17	50%	A
	34	20%	SA	8	23.5%	SA
Assessments foster better learning	78	45.9%	A	16	47.1%	A
	31	18.2%	SA	7	20.6%	SA

Scale: No Comment (NC); Not Applicable (NA); Strongly Disagree (SD); Disagree (D); Agree (A); Strongly Agree (SA).

3.3.2. From the Teachers' Perspective

According to the teachers from both clusters (Table A4), formative assessment is the predominant approach. Concerning regular feedback, the diversity of assessment instruments; student involvement in activity planning; the selection of content linked to real-world issues, context, interests and curiosities; and the adoption of active methodologies were reported to occur more frequently in AE_X than in AE_Y.

3.3.3. From the Coordinating Teachers' Perspective

One coordinating teacher from AE_X stated that the innovation plan led to changes in pedagogical practices, with the adoption of student-centred active methodologies: "I saw students more motivated, more engaged in constructing their own knowledge," "I saw teachers more confident in applying active and collaborative methodologies" (ID05CT). With respect to the curriculum, they highlighted that its restructuring enabled greater integration, particularly through the creation of an integrative subject that brought together different areas of knowledge, "developing competencies that prepared them for a constantly changing world" (ID05CT).

The coordinators from AE_Y also reported changes in pedagogical practices, evidenced by the development of interdisciplinary activities and the emphasis on the student's active role in their learning process: "I witnessed improvements in how students engage with activities," "greater curricular coherence" (ID02CT), "greater student involvement in activities," and "greater cooperation between teachers from different areas, enabling more meaningful and integrated learning" (ID04CT).

3.3.4. From the Headteachers' Perspective

The headteacher of AE_X explained that, during the design of the innovation plan, there emerged a need to recreate subjects—not to expand or reduce the curriculum, but to make them more meaningful for students: "to recreate them so they could be more meaningful for students and so that full academic success could be achieved" (IDHX). He advocated for personalised teaching, supported by platforms developed to address students' difficulties ("different platforms to meet specific difficulties students were facing" (IDHX)) and by the presence of co-teaching arrangements ("when necessary, we place an additional resource in the classroom, such as co-teaching" (IDHX)). The implementation of active methodologies has contributed to the development of skills such as collaboration, communication, and critical thinking, "resulting in students who are much more collaborative, with extraordinary communication skills and a way of thinking critically ..." (IDHX). Assessments are described as collaborative, allowing participation from all stakeholders: "an assessment that is highly collaborative, where everyone could contribute" (IDHX).

At AE_Y, according to the headteacher, the decision to adopt an innovation plan stemmed from a desire to transform practices and build a more integrated curriculum: "the aim is to provide some freedom for students to learn in a way that connects concepts to what is lived today, what is felt today, and what is seen today" (IDHY). Accordingly, integrative subjects were created to link concepts from different areas and promote project-based learning: "Learning happens through the project" (IDHY). Assessments are planned collaboratively: "assessment mechanisms, whether summative or formative, are constructed jointly" (IDHI).

3.4. How Is Teaching Practice Characterised (Working Methods, Curriculum Management, and Teaching and Assessment Strategies)?

3.4.1. From the Students' Perspective

According to the students from both clusters (Table A5), teachers provide feedback on completed work. However, the use of varied teaching strategies is slightly more common in AE_Y compared to AE_X. Regarding input on topics to be addressed in class, the AE_X students reported that this opportunity arises occasionally, whereas more than half of the AE_Y respondents indicated that such opportunities do not exist.

3.4.2. From the Teachers' Perspective

More than 50% of the teachers from both clusters (Table A5) reported that peer collaborative work is integrated into the school timetable. The planning of peer activities was found to be more common in AE_X. As for opportunities for sharing and reflection, teachers stated that these occur regularly.

3.4.3. From the Perspective of the Coordinating Teachers

The teachers from both clusters reported adopting a collaborative working model: "teachers began working collaboratively, exchanging experiences and developing more effective pedagogical strategies" (ID05CT) and "collaborative work among teachers was promoted" (ID02CT). One teacher from AE_X additionally highlighted investment in professional development, evidenced by the implementation of continuous training and internal

workshops: "internal workshops and continuous professional development sessions were held" (ID06CT).

3.4.4. From the Perspective of the Headteachers

The headteacher of AE_X explained that the teaching staff was organised into educational teams, with time allocated in the timetable for collaborative work. He emphasised that this time should be autonomously managed by the teachers and occur naturally: "it must be managed by the teachers, without a doubt, but it must also happen naturally within their schedule" (IDHX).

In terms of professional development, continuous workshops were promoted with the aim of empowering teachers and involving them in the strategic vision of the school cluster: "keeping people empowered, that is, bringing them into this strategic vision, this plan of action" (IDHX).

At AE_Y, teachers were organised into pedagogical pairs, with the autonomy to decide whether to maintain or change their partnerships: "With the innovation plan, all teachers have a pedagogical pairing ... I can always work with the same pedagogical pair or not" (IDHY). Additionally, educational teams were formed with the freedom to define the projects to be developed within the Multimedia Workshop subject: "Each pedagogical team defines the project, or else in subject-based groups" (IDHY). Teachers' timetables also included time allocated for collaborative work, which could occur either by formal invitation or informally: "The last period on Wednesday is always for collaborative work, though that doesn't mean it necessarily happens then" (IDHY).

As the headteacher of AE_Y noted, in the current school year "the implementation of the innovation plan went more smoothly. There was a more natural integration" (IDHY) due to mechanisms that enabled teachers to plan, define assessment criteria, and design activities collaboratively leading to improved execution of the innovation plan.

Although teacher professional development was considered within the plan, the headteacher observed (cf. field diary entry) that the training undertaken by teachers did not always result in effective changes to pedagogical practice.

3.5. What Difficulties, Challenges, Effects, and Limitations Are Identified by Headteachers, Teachers, and Students in the Implementation of Innovation Measures?

3.5.1. From the Students' Perspective

- Obstacles to improving pedagogical practice

The students were asked to rank four factors from the most to the least limiting in terms of improving teaching and learning. For the analysis, the total number of students who associated each ranking (from 1st (most limiting) to 4th (least limiting)) for each obstacle was recorded (see Table 7).

The data (see Table 7) show that the AE_X students identified the constant change in teachers (N = 50) and lack of funding (N = 50) as the two most significant constraints on changing pedagogical practice. Conversely, the majority indicated that the ageing of the teaching staff (N = 42) was the least limiting factor.

Most of the AE_Y students (see Table 7) identified the lack of technological resources and technical support (N = 17) as the greatest obstacles to improvement, while the constant change in teachers throughout the school year was considered the least limiting factor (N = 18).

The students were also asked whether, beyond the previously mentioned factors, there are additional obstacles to changing pedagogical practice. Of the 170 students from AE_X, 158 responded negatively and 12 affirmed that they could. Among these 12, 4 cited a lack of patience from teachers ("Impatient teachers" (ID105), "When teachers don't

explain properly and shout" (ID107), "Teachers lacking patience" (ID109), and "Some teachers need to be more patient with students" (ID110)); two referred to a lack of concept clarification by teachers ("Teachers don't simplify things" (ID97), "Teachers don't explain the subject matter" (ID106)); two pointed to their peers ("My classmates" (ID133), "Too many classmates are distracting" (ID163)); one mentioned "Comfort" (ID185); one cited the use of digital textbooks ("Digital textbooks—whenever there's no internet, we can't open the textbooks or watch videos on the topic" (ID221)); another identified the school timetable ("On Thursdays, two hours of conduct and two of maths" (ID108)); and one student associated accidents affecting mobility as an obstacle ("Breaking hands, arms" (ID103)).

Of the 34 students from AE_Y, 30 responded negatively and only 4 identified other obstacles. Of these four, two stated they did not know ("I don't know" (ID1) and "Not sure" (ID11)) and two identified a lack of human resources ("Lack of teachers" (ID20) and "Lack of staff" (ID23)).

Table 7. Ordering of obstacles to improvement of teaching and learning according to students.

Obstacle to Pedagogical Practice	No. of Students (AE_X—170)	No. of Students (AE_Y—34)
1º—Constant change in teachers throughout the school year	50	4
1º—Lack of funding	50	8
1º—Lack of technological support and technical support	45	17
1º—Ageing of the teaching staff	25	5
2º—Lack of funding	48	10
2º—Lack of technological support and technical support	42	13
2º—Ageing of the teaching staff	42	6
2º—Constant change in teachers throughout the school year	38	5
3º—Lack of technological support and technical support	48	2
3º—Ageing of the teaching staff	45	9
3º—Lack of funding	41	16
3º—Constant change in teachers throughout the school year	36	7
4º—Ageing of the teaching staff	58	10
4º—Constant change in teachers throughout the school year	46	18
4º—Lack of technological support and technical support	35	2
4º—Lack of funding	31	4

- Student Perceptions of School

Regarding the perceptions of the AE_X students about school and the innovation plan, most students reported attending school to pursue dreams/professional goals (N = 56) because it is compulsory (N = 52), due to a desire to learn (N = 31), and to be with peers and friends (N = 29).

As for the AE_Y students, the majority attend school because it is compulsory (N = 9), because they see it as a place necessary for acquiring knowledge (N = 7), to be with peers and friends (N = 6), and for professional aspirations (N = 6).

- Curriculum

Regarding content, the AE_X students consider it important (N = 49), while others believe that only some content is relevant (N = 24), that it enables knowledge acquisition (N = 37), and it cultivates skills and values (N = 19).

The AE_Y students recognise that content allows for knowledge acquisition (N = 10) and is important (N = 9).

- Motivating and Demotivating Factors at School

In terms of motivating factors, the AE_X students highlighted socialising with friends/peers (N = 88), the teaching staff (N = 22), and equally (N = 13) learning, free time, and the belief that school is crucial for their future.

Regarding demotivating factors, students pointed to the teaching staff (N = 29), the curriculum (N = 28), lessons (N = 27), and the school timetable (N = 19).

The AE_Y students identified socialising with peers and friends (N = 15) and the curriculum (N = 6) as motivating factors. As for demotivating factors, they emphasised the timetable (N = 9), particularly the early start which requires waking up early, followed by the teaching staff (N = 8) and lessons (N = 6).

- Suggestions for Timetable Changes

When asked about possible changes to the timetable, the AE_X students suggested reducing instructional time (N = 38), adjusting certain subjects based on preference or perceived importance (N = 29), and increasing break time (N = 22).

The AE_Y students proposed starting lessons later as they currently begin at 8 a.m. (N = 6) and increasing instructional time for subjects they enjoy (N = 6).

- Suggestions for School Improvements

Regarding school improvements, the AE_X students proposed enhancing physical conditions (N = 25), increasing free time (N = 20), changing instructional time (N = 18), adjusting subject timetables (N = 16), and improving the quality of school meals (N = 15).

The AE_Y students suggested investing in better physical conditions (N = 9), increasing free time (N = 7), and changing student timetables (N = 7).

- Perceived Effects of the Innovation Plan

Concerning the effects of the innovation plan, some AE_X students (N = 138) stated it had positive effects by helping them learn more, though many did not clarify how (N = 64). Others affirmed it helped them learn more but showed limited understanding of the plan's measures (N = 17) while another group said it enhanced learning due to its enriching nature (N = 17). Conversely, some AE_X students (N = 23) felt the plan did not help them learn more; most of these students either did not clarify their opinion (N = 6) or justified it with limited understanding of the plan's measures (N = 16). The remaining nine students chose not to answer.

Most AE_Y students (N = 28) reported that the innovation plan helped them learn more, particularly because they found the learning more enriching (N = 9). Notably, 11 of the 28 did not clarify their opinion. In contrast, the remaining students (N = 6) stated that the plan did not help them learn more; of the three who justified their response, two did not perceive improvements (N = 2) and one argued that the plan failed to support pedagogical differentiation (N = 1) because "It doesn't help me, because each student learns differently" (ID2).

3.5.2. From the Teachers' Perspective

Similar to the students, the teachers were asked to rank seven factors from most to least limiting in terms of improving teaching and learning. The analysis focused on counting how many teachers assigned each obstacle to each rank (from 1st (most limiting) to 7th (least limiting)) (see Table 8).

Table 8. Ordering of obstacles to learning and teaching improvements according to teachers.

Obstacle to Pedagogical Practice	No. of Teachers (AE_X—35)	No. of Teachers (AE_Y—30)
1º—Lack of commitment from guardians and families	16	13
1º—Low time credit *	6	3
1º—Teacher mobility	6	1
1º—Ageing teaching staff **	4	6
1º—Lack of funding	3	2
1º—Teacher resistance to change	0	5
1º—Lack of technological resources and technical support	0	0
2º—Lack of commitment from guardians and families	9	2
2º—Low time credit *	4	7
2º—Teacher mobility	5	5
2º—Ageing teaching staff **	3	6
2º—Lack of funding	4	1
2º—Teacher resistance to change	6	6
2º—Lack of technological resources and technical support	4	3
3º—Lack of commitment from guardians and families	2	6
3º—Low time credit *	1	9
3º—Teacher mobility	6	5
3º—Ageing teaching staff **	7	3
3º—Lack of funding	4	2
3º—Teacher resistance to change	12	4
3º—Lack of technological resources and technical support	3	1
4º—Lack of commitment from guardians and families	4	3
4º—Low time credit *	5	5
4º—Teacher mobility	8	5
4º—Ageing teaching staff **	9	2
4º—Lack of funding	4	8
4º—Teacher resistance to change	5	3
4º—Lack of technological resources and technical support	0	4

Table 8. *Cont.*

Obstacle to Pedagogical Practice	No. of Teachers (AE_X—35)	No. of Teachers (AE_Y—30)
5º—Lack of commitment from guardians and families	3	3
5º—Low time credit *	9	0
5º—Teacher mobility	3	8
5º—Ageing teaching staff **	0	1
5º—Lack of funding	8	2
5º—Teacher resistance to change	6	3
5º—Lack of technological resources and technical support	6	13
6º—Lack of commitment from guardians and families	1	1
6º—Low time credit *	5	4
6º—Teacher mobility	4	2
6º—Ageing teaching staff **	3	2
6º—Lack of funding	7	8
6º—Teacher resistance to change	3	7
6º—Lack of technological resources and technical support	12	6
7º—Lack of commitment from guardians and families	0	2
7º—Low time credit *	5	2
7º—Teacher mobility	3	4
7º—Ageing teaching staff **	9	10
7º—Lack of funding	5	7
7º—Teacher resistance to change	3	2
7º—Lack of technological resources and technical support	10	3

* No. of hours attributed to each school to reinforce support to students' learning. ** According to the National Statistics Institute (Pordata, 2025), more than 50% of the total number of teachers (149,124) are over 50 years old and still active (85,596).

The majority of the teachers from both clusters identified the lack of commitment from guardians and families as the main obstacle to improving pedagogical practice (N = 16 and N = 13, respectively). In contrast, both groups excluded the lack of technological resources and technical support from the top position (N = 0), and the AE_X teachers also excluded teachers' resistance to change (N = 0).

In the second position (see Table 8), most of the AE_X teachers again cited the lack of parental and family commitment (N = 9), while the AE_Y teachers pointed to low time credit (N = 7). In the final position, the AE_X teachers identified a lack of technological resources and technical support as the least limiting factor (N = 10), whereas the AE_Y teachers considered ageing teaching staff to be the least limiting (N = 10).

When asked whether there are any additional factors that they considered to be obstacles to improving pedagogical practice, 5 out of 35 teachers from AE_X and 5 out of 30 from AE_Y responded affirmatively. The five teachers from AE_X referred to "Excessive

number of lessons for students" (ID30), "Too much bureaucracy and lack of time to properly plan teaching activities" (ID70), "Overly extensive programmes" (ID71), "Lack of student engagement and commitment" (ID60), "Lack of student commitment to studying" (ID72), and "Inadequate spaces" (ID30).

The five teachers from AE_Y mentioned a "... lack of stability to develop coherent work. What is valid today may not be tomorrow, and that is exhausting" (ID4), the absence of a "More defined and even more punitive law for students and families regarding indiscipline ..." (ID14), "Students' own lack of interest" (ID15), and a "Lack of flexible physical spaces that allow the development of activities involving diverse materials and plastic expression techniques" (ID66). One of these five teachers (ID21) added a comprehensive list of obstacles: "Resistance to change from the Ministry (exam formats do not align with PASEO)", "Lack of trust and encouragement for teachers (from the authorities)", "Teachers' financial conditions", "Frozen salaries for an excessive period", "Demoralisation of the profession", "Behavioural issues among young people in school settings (teachers lack disciplinary authority—priority is given to guardians)", "Frustration in preparing students for diverse competencies (social/civic; participatory; critical), yet the focus remains on knowledge and exam scores", "Endless bureaucracy", "Lack of specialised professionals to support teachers (psychologists, therapists, etc.)", "Excessive teaching load", and "Assessment practices focused on testing rather than genuine learning development, etc.".

- Effects of the Innovation Plan

According to Table 9, the teachers from AE_X perceive more positive effects of the innovation plan on student behaviour and pedagogical differentiation than those from AE_Y. Additionally, the AE_X teachers show greater agreement in recognising the plan as a tool that promotes school autonomy.

Table 9. Teachers' perspective on the effects of the innovation plan.

Effect of the Innovation Plan	AE_X			AE_Y		
	>Freq.	%	Scale	>Freq.	%	Scale
Positive effects on student behaviour	19	54.3%	A	11	36.7%	A
Better pedagogical differentiation	22	62.9%	A	10	33.3%	A
Positive effects on students' personal and social development	18	51.4%	A	16	53.3%	A
Contributed to improvement in students' academic results	19 13 1	54.3% 37.1% 2.9%	A SA NC | SD | D	13 6 5	43.3% 20% 16.75	A NC D
Positive effects on teachers' collaborative practices	18	51.4%	A	15	50%	A
Promotes more autonomy of schools	21	60%	SA	17	56.7%	A
Crucial tool to practice improvement	17	48.6%	SA	10	33.3%	A

Scale: No Comment (NC); Not Applicable (NA); Strongly Disagree (SD); Disagree (D); Agree (A); Strongly Agree (SA).

Regarding positive effects on students' personal and social development and collaborative teaching practices, around 50% of the teachers from both school clusters expressed agreement.

In terms of academic improvement, a higher percentage of AE_X teachers agree that the plan contributes positively.

Furthermore, the AE_X teachers acknowledged benefits in implementing new pedagogical practices (N = 10), where students become active participants in their learning, and the curriculum becomes more flexible and integrated (N = 6).

The AE_Y teachers also highlighted positive effects on the curriculum, particularly in terms of better integration across knowledge areas (N = 10), the promotion of collaborative work among teachers and students (N = 4), and improved learning outcomes (N = 3). However, a small group of AE_Y teachers (N = 4) consider the plan to have negative effects, especially in undervaluing knowledge, failing to properly recognise scientific subjects, encouraging student indiscipline due to their perception of subjects (N = 3), and a lack of awareness of the plan within the educational community (N = 1).

- Suggestions for Changes to the Innovation Plan

Most of the AE_X teachers did not propose changes (N = 17) or did not respond (N = 6). A few suggested adjusting the teaching load for certain subjects (N = 3); increasing autonomy in hiring staff (N = 2) (though this depends on the authorities and not the plan itself); and reducing digital reliance and investing more time in specific practices (N = 2). Three teachers each proposed more time for collaborative teaching, increasing arts in the curriculum, and arranging student timetables to have more free afternoons and one afternoon entirely dedicated to activities within the scope of sports, culture, and arts.

Nine AE_Y teachers did not suggest any changes. Among those who did, the focus was mainly on curriculum changes, especially in subject groupings (N = 6) and adjusting subject timetables (N = 4).

- Perceptions of the School Clustering

A total of 30 AE_X teachers expressed liking their school cluster, while 9 gave no opinion. The reasons included identification with the project and people (N = 6), emotional connection with students, positive school environment, availability of resources, and teacher involvement in pedagogical renewal (N = 3).

Two teachers, however, expressed dislike due to distance from their home and fewer timetable credits for their subject.

Among the AE_Y teachers, 28 said they liked the cluster. The reasons included a good school environment (N = 10) and appreciation of the teaching staff (N = 8). Of the two who did not like their cluster, one felt there was still a long way to go and the other had a negative experience.

3.5.3. Perspective of the Coordinating Teachers

- Obstacles Identified

One AE_X coordinator highlighted four obstacles: teacher resistance; the need for continuous training tailored to needs; the time required to consolidate changes; and resource scarcity, leading to the search for partnerships and alternative solutions.

Two AE_Y coordinators identified the following obstacles: resistance to change (N = 2), the need for continuous training (N = 2), challenges in collaborative teaching (N = 2), and the difficulty in managing time flexibly (N = 1).

- Suggestions for Changes to the Innovation Plan

No suggestions were made by the AE_X coordinators. The AE_Y coordinators suggested ensuring continuity of teaching staff over the years (N = 1) and creating mechanisms for individualised student support (N = 1).

- Perceived Effects

One of the coordinator teachers in AE_X noted improvements in student engagement in learning, teacher collaboration, the school environment through strengthened relationships, and the development of essential skills.

Two of the coordinating teachers in AE_Y highlighted improved student engagement (N = 2), greater curriculum coherence (N = 1), enhanced teacher collaboration (N = 2), and better school environments (N = 1), which was also mentioned in the questionnaires.

- Key Factors for Building an Inclusive School

The AE_X coordinator emphasised the need for personalised learning paths tailored to each student's interests.

The AE_Y coordinators stressed the need for "innovation becoming a cultural norm rather than an exception" (ID02CT); "each teacher feeling supported and valued in their roles as transformative agents" (ID02CT); students being seen as the true protagonists of their learning (ID02CT); and establishing a culture of collaboration, sharing, and trust within the educational community (ID04CT).

3.5.4. From the Perspective of the School Headteachers

- Effects

According to the headteacher of AE_X, the implementation of the innovation plan led to positive outcomes, including improvements in collaborative work among teachers, classroom organisation, the creation of meaningful learning environments, and the enhancement of the student's role in the learning process. Regarding negative effects, the headteacher did not identify any, explaining, "If this brought anything negative, it was because we wanted to do everything very well ..." (IDHX).

The headteacher of AE_Y recognised that the measures adopted within the innovation plan triggered positive effects in terms of teacher collaboration and, above all, student learning. As for negative effects, he highlighted teacher resistance to change: "The refusal of some teachers to accept other models, other practices" (IDHY).

- Improvements

In terms of improvements, the headteacher of AE_X emphasised the importance of continuing to ensure sustainability based on three guiding principles: a structured vision understood by all, ongoing capacity-building, and regular monitoring of impact.

The headteacher of AE_Y stressed the need to improve coordination among teachers, asserting, "Teachers cannot isolate themselves on their own islands" (IDHY).

- Advice/Needs for Implementing an Innovation Plan

The headteacher of AE_X stated that the authorities must ensure stability and instil confidence in schools. Furthermore, schools should create spaces for reflection, as no one knows more about education than teachers themselves. Schools must begin to think independently and explore possible solutions. He also highlighted the need to view the school as a learning community "where everyone interacts with everyone and all share responsibility for one another" (IDHX).

The headteacher of AE_Y pointed out a major limitation: the insufficient number of operational assistants and special education teachers given the student population served by the school grouping: "the ratios of operational assistants. For us, that's a major limitation" (IDHY).

4. Discussion

Based on the data presented, it is evident that the results are not directly comparable. The number of participants—students and teachers—is unequal when considering the total

population of each group surveyed. This invites reflection on the reasons behind AE_Y's lower participation compared to AE_X. The key question becomes:

What Underlying Characteristics of AE_Y Might Explain the Limited Participation of Its Stakeholders?

Considering the profiles of both school clusters, it is clear that they operate in very different realities. AE_Y encompasses three times more organisational units and accommodates over 2000 students and 150 teachers compared to AE_X. This suggests that in a cluster of such scale—particularly in terms of student demographics, social and economic diversity, and changes within the teaching staff—it becomes more complex and challenging to establish a cohesive and mobilising leadership. J. M. Alves (2011) supports this view, arguing that the aggregation of multiple schools has weakened the concept of the school as a community and a shared identity project. He notes that leadership tends to focus on managing mega-organisations, with communication limitations arising from multiple organisational identities. These challenges undermine cohesion and consistency in action, weakening the shared vision, collaborative teaching, the school environment, and ultimately increasing the distance between school and family. Thus, they foster a higher risk of fragmentation that threatens the educational project and complicate the monitoring and evaluation of educational processes and outcomes.

The data also suggest that AE_Y faces resistance from teachers regarding change, and there are tensions between teachers and the headteacher over the adoption of certain measures. Moreover, it is evident that the innovation plan is not widely known. Some teachers do not perceive certain measures as beneficial—particularly the subject of Geo History, which they believe has negatively impacted student outcomes.

Despite efforts by the researcher and the AE_Y headteacher to encourage participation in the surveys, the significant lack of data from this cluster may be linked to the scale of the mega-organisation—the number of schools, geographical spread, and volume of students and teachers—which complicates the adoption of a shared vision and goals, internalisation of the innovation plan, and teaching practices aligned with enhanced learning opportunities.

In this regard, given that the number of participants from AE_Y is not substantial, it is not possible to draw precise conclusions from the data collected. Therefore, considering the limited comparability between the two school clusters, the discussion of the results is focused on AE_X, where the data gathered demonstrate greater consistency and relevance to the objectives of the study.

To guide this discussion, we return to the central research questions.

(I) *Which Organisational (e.g., Leadership, School Culture, and Environment) and Structural Aspects (e.g., Curriculum Organisation, Time, Space, and Student Groupings) Were Considered in the Implementation of a School Model Distinct from Traditional Schooling?*

According to the data collected and analysed, the adoption of the innovation plan in AE_X was deliberate and based on three key pillars: a shared understanding of the strategic vision; continuous and needs-based capacity-building for teaching and non-teaching staff; and regular monitoring aimed at assessing the impact on learning. Initially, leadership development was prioritised, followed by the creation of a network for sharing and discussing various foundational documents (e.g., assessment criteria and lesson planning), which involved the entire educational community. According to the headteacher, this process enabled collective engagement, cultivated trust among stakeholders, and ultimately promoted a stronger sense of commitment. Fullan and Hargreaves (2012) support this notion, emphasising that the key to a successful system lies in "... a clear sense of direction and a high degree of coherence, and an interconnected set of policies and strategies as

well as an embedded culture of improvement that provides that direction and coherence" (p. 175).

Regarding the school environment, both Brunet (1995) and Lima (2008) assert that it is a decisive factor in educational success. At AE_X, the environment is described by both teachers and the headteacher as high quality. The questionnaire responses reveal a deliberate joint effort to define shared goals, with teachers feeling valued and supported. There is a clear intention to involve all stakeholders and nurture close relationships. Although some discomfort was felt by teachers in response to change, the deeply rooted culture of collaboration within the cluster encouraged the adoption of this working model. Guerra (2001) warns that the school environment depends not only on the attitudes of those involved but also on how it is managed by leadership—an aspect carefully considered in this educational community.

At AE_X, leadership is characterised as shared and involving mutual support, continuous collaborative work, and relevance to all. The questionnaire data show that both students and teachers perceive leadership as attentive and inclusive, particularly recognising the headteacher as someone approachable, concerned with everyone's well-being, and committed to creating opportunities for dialogue and community building. Studies by Machado and Formosinho (2016) and Hubbard and Datnow (2020) identify leadership as a key factor in fostering innovation. J. Alves and Cabral (2021) further argue that leadership should be visionary, capable of generating knowledge and transformation, and should "renounce the blindness of toxic power that merely discredits and destroys" (p. 11).

In addition to these dimensions, AE_X made efforts to break away from the traditional class unit at certain times, creating opportunities for collaborative work among students from different classes. Mehta (2022) critiques age-based student groupings, arguing that it contradicts the essence of education as students' abilities vary and do not align precisely with chronological age.

As for curriculum, J. Alves and Cabral (2021) criticise the perpetuation of a segmented curriculum overloaded with disconnected concepts. They advocate for a curriculum "embedded in the local context, one that challenges students and inspires them to seek, work, and learn" (p. 6). AE_X embraced this perspective, not by expanding or reducing the curriculum, but by making learning more meaningful. New learning spaces were created to meet students' needs in response to contemporary challenges, transforming the school into a space aligned with societal evolution and focused on developing relevant skills and knowledge. UNESCO (2022) supports this approach, highlighting the importance of rethinking learning environments to enhance students' capabilities.

These changes also impacted the students' and teachers' schedules. AE_X introduced dedicated time for collaborative work, focused on the adoption of active learning methodologies in the pedagogical work models, prioritised formative assessment strategies, and restructured the teaching staff into educational teams. The organisation into educational teams, according to Araújo (2024), not only encompasses collaboration within the educational context, but "can also address the need for joint work among teachers and the sharing of ideas and successes without fear, enabling them to learn from one another and enhance their professional competences" (p. 21).

Schleicher (2018) draws a compelling comparison: in medicine, treatment is tailored to each patient for maximum effectiveness, whereas in education, a uniform approach is applied to all. AE_X sought to change this paradigm, placing student learning at the centre. These changes extended beyond the classroom, reshaping the school's organisational and structural dimensions and broadening the horizons of student learning and changing the organisational and structural dimensions of the schools.

(II) Characteristics of learning environment

(a) Teaching/learning time, space, and student groupings

As previously mentioned, AE_X prioritised the creation of new learning environments and the extension of learning beyond the classroom. According to the headteacher, the school overflows its walls. New spaces were established to promote essential competencies, facilitate interdisciplinary learning, and integrate varied knowledge areas. Classrooms were equipped with whiteboards, interactive boards, and projectors; chairs and tables were arranged to support collaborative work, countering the traditional transmissive teaching model. The point was to forego the thought of a classroom as a closed and limited space so that it will not resemble "an assembly line" (p. 7), as described by J. Alves and Cabral (2021). UNESCO (2022) reinforced this thought, advocating the redesign of spaces and schedules to harness digital resources and create new learning opportunities.

Regarding student groupings, Labaree (2021) notes that age-based groupings simplifies management and monitoring but introduces legitimacy issues. J. Nóvoa (2014) adds that schools must recognise students' diverse learning styles and become capable of "embracing diversity, with different approaches to learning" (p. 37). At AE_X, maintaining the class unit was necessary due to regulatory requirements and was also seen as a means of fostering socialisation and trust among students. Nevertheless, specific times and spaces were created within certain subjects to enable collaborative work among students from different classes.

With respect to learning time, both teachers and students noted that the school timetable facilitates interdisciplinary work. However, they also pointed out that the allocated instructional time limits the development of diverse activities. Time was listed as a limiting factor for learning by Mehta (2022) who argues that meaningful learning requires far more than 35 to 45 min. The rigid and fragmented school timetable that persists interrupts learning by forcing students to leave one classroom and begin a new learning experience elsewhere.

(b) Classroom environment, teaching strategies, pedagogical relationships, curriculum, and assessment processes

J. Nóvoa (2014) asserts that it is no longer acceptable to have "a school for all" (p. 1); rather, we must aspire to having every student achieve success. In this vein, Roldão (2017) acknowledges the need to conceive the curriculum "as a differentiated and meaningful pathway" (p. 21) that gives purpose to the learning process and to the competences that all students require. At AE_X, there is a clear effort to restructure the curriculum by integrating multiple subjects into a single discipline, aiming to make learning more coherent and meaningful. Teachers and students report that the content often responds to students' interests and curiosities. However, some students feel that certain topics are irrelevant and demotivating, and suggested changes to the timetable for specific subjects. This points to the need for more personalised teaching as the curriculum remains standardised for all despite the headteacher's stated intention to differentiate. A. Nóvoa (2019) highlights two essential considerations when opening the door to a new school model: the need to acknowledge the influence of the digital age and "the necessity to differentiate students' learning pathways" (p. 4).

Regarding classroom environment, strategies, and pedagogical relationships, the questionnaire data show a generally positive relationship between the teachers and students. Some students, however, expressed dissatisfaction with certain teachers. There is also greater student involvement in planning and learning, supported by the use of active methodologies. Schleicher (2018) describes the ideal teacher as not only professionally knowledgeable but also passionate, responsive to students' needs, and committed to promoting collaborative learning.

UNESCO (2022) argues that just as global challenges cannot be confined to "disciplinary boundaries" (p. 50), pedagogical approaches must be interdisciplinary and enable the development of students' collaborative and decision-making skills within a culture of solidarity.

In terms of assessment, formative evaluation is prioritised. Teachers use continuous feedback and implement various assessment tools. This diversification aligns with Fernandes (2005), who advocates for strategies that best respond to student differences. Hargreaves et al. (2001) also support this approach, noting that it helps meet multiple goals such as "accountability, certification, diagnosis, and student motivation" (p. 144).

The headteacher describes assessments as highly collaborative, with space for everyone to contribute. Students recognise that this approach enhances learning. However, some students associate test-based assessments and the pressure to achieve high results with demotivation. J. Alves and Cabral (2015) identified negative impacts of assessment on students—now teachers—including feelings of humiliation, discrimination, disappointment, and emotional harm. UNESCO (2022) reinforces in its new social contract for education that assessments should not punish or stratify students, nor should it favour tests "which, by themselves, exert disproportionate pressure on what happens in the time and space of schools" (p. 146).

(III) *How is teaching practice characterised (working methods, curriculum management, and teaching and assessment strategies)?*

One of the measures implemented was the organisation of teachers into educational teams, supported by designated time slots in the timetable for regular collaborative work. This model enabled joint planning (particularly among teachers of the same subject area), resource sharing, strategy development, and reflection on teaching dynamics and their impact on learning. This approach counters the issue of fragmentation in school organisations described by Guerra (2001).

According to Bolívar (2020), leadership, when granted the autonomy to adapt the curriculum to contextual needs, can fuel collaborative teaching practices. However, Hargreaves (2019) clarifies that it is also essential for leaders to encourage and empower teachers to work together and to create time outside the classroom to support this work model. Educational teams, according to Formosinho and Machado (2009), foster learning communities among students and teachers and "communities of teaching practice committed to organisational and professional development and the improvement of student learning" (p. 118).

Roldão (2009) warns that learning cannot be expected to occur through mere knowledge exposure: "Only by acting strategically can one hope to achieve successful learning outcomes for others" (p. 121). The teachers at AE_X adopted approaches that positioned students as active participants in their learning. According to the headteacher, this contributed to the development of collaboration, critical thinking, and communication skills. UNESCO (2022) supports this, stating that strong pedagogical relationships between students and teachers facilitates collaboration, allowing students "to get in contact with the richness and diversity of inherited shared human knowledge, supports intellectual emancipation, and enables the co-creation of just and sustainable futures" (p. 99).

(IV) *What difficulties, challenges, effects, and limitations are identified by headteachers, teachers, and students in the implementation of innovation measures?*

The innovation plan introduced a new perspective on teaching but also brought constraints and obstacles. These included teacher mobility, a lack of funding, insufficient technical resources and support, a lack of commitment from guardians and families, teacher resistance to change, an ageing teaching workforce, and low time credit.

In terms of impact, most stakeholders reported positive outcomes. The plan enriched learning, increased school autonomy, improved teaching practices and collaborative work, enhanced student outcomes, and supported the behavioural and personal social development of students. It also responded better to pedagogical differentiation, created a more coherent curriculum, strengthened community ties, elevated student voices and agency, and promoted the creation of meaningful learning spaces.

Despite these advantages, the data also reveal that there is still a long way to go. The school is not yet perceived as an inspiring and captivating space for all students. As J. Nóvoa (2014) describes, schools must recognise that students are diverse and learn differently. They must strive to develop "new educational methods that bring learning to the learner and are more conducive to student progress. Learning is not a place, but an activity" (pp. 37–38).

5. Conclusions

This research highlights that innovation plans can serve as a catalyst for dialogue and reflection around education in schools, offering an opportunity to forge new paths in the search for strategies and solutions that respond to contextual challenges. However, despite granting schools greater autonomy in curriculum management, these plans are accompanied by limitations that hinder the ability to break away from a rigid and standardised school grammar. As J. Alves and Cabral (2021) affirm, transforming school grammar "is an essential condition for fulfilling the promises of education" (p. 15). Although there is a clear intention to reinvent curricular practices, a tendency to offer the same to all students remains, thereby obstructing the implementation of personalised teaching that could address the diverse needs of and differences in each learner. Students' time continues to be segmented, limiting the execution of varied activities. The constraint of limited teaching hours creates barriers to autonomous human resource management. The imposition of national exams by governing bodies, which do not align with the guidelines of essential learning, weakens the development of key skills such as collaboration, creativity, and the ability to solve real and meaningful problems for students. Instability in school management—triggered by frequent policy changes due to shifts in national governance—further complicates the issue. Annual teacher mobility disrupts school organisation, hinders the formation of cohesive teams, and compromises the continuity of implemented projects. Excessive teaching loads lead to fatigue and frustration.

In summary, an innovation plan can offer a broader framework for envisioning a school that inspires students to learn, supports their learning journey, equips them with tools to face future challenges, and becomes a space of mutual support where everyone learns from one another—a place where joy and personal fulfilment prevail. Yet Kallick and Zmuda (2017) also emphasise the need to implement personalised learning in order to address student diversity.

To achieve this, it is essential for headteachers to create opportunities for the development of a collaborative culture, to engage and value all members, and to identify and foster the potential of each individual. Teachers, in turn, must be willing to experiment with alternative approaches to their work, to break away from entrenched routines, and to engage in dialogue about a new kind of school that meets the expectations and interests of students. For this to be possible, it is essential that governing bodies grant schools even greater autonomy and ensure stability, enabling the creation of schools that profoundly break away from entrenched educational norms. This vision aligns with the poetic metaphor by R. Alves (2002): "Schools that are wings do not love caged birds. What they love are birds in flight. They exist to give birds the courage to fly" (p. 29).

It is also noted that the local contexts of each school cluster, the number of educational establishments involved, and the scale in terms of teachers and students present distinct challenges to the adoption of innovation plans. These factors influence how teachers work and how students learn. This study underscores the centrality of these variables, which help explain why the innovation implemented in Cluster AE_X was more successful, demonstrating that organisational locus and scale truly matter.

The findings that emerged throughout this study indicate that school innovation may represent a viable path for schools seeking to build a more meaningful and engaging educational environment. However, it appears that school innovation will only achieve its intended effects when there is a genuine break from the traditional grammar of schooling.

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Abbreviations

The following abbreviations are used in this manuscript:

ASE	School Social Support
CBE	Cycle of Basic Education
DGE	Directorate General for Education
CT	Coordinating Teacher

Appendix A

Questionnaire tables.

Table A1. Dimensions considered in the implementation of a new school model.

Aspect	AE_X			AE_Y		
	>Freq.	%	Scale	>Freq.	%	Scale
Students' Perspective						
Headteacher's availability in listening to students' worries	90	52.9%	A	23	67.6%	A
Sufficient time for interaction among students	81	47.6%	A	11	32.4%	A
	47	27.6%	D	10	29.4%	D
Availability of comfortable spaces for student socialisation	101	59.4%	A	12	35.3%	A
	35	20.6%	SA	10	29.4%	D

Table A1. *Cont.*

	Aspect	AE_X			AE_Y		
		>Freq.	%	Scale	>Freq.	%	Scale
	Teachers' Perspective						
Top Leadership	Headteacher initiated spaces for sharing and discussion during the design phase of the innovation plan	24	68.6%	SA	19	63.3%	A
	Headteacher was directly involved in the implementation of the innovation plan and sought to know the perceptions of everyone involved	31	88.6%	SA	14	46.7%	A
	Headteacher always available to support and help the teachers	29	82.9%	SA	15	50%	SA
	Headteacher promotes a collaborative community in the school	29	82.9%	SA	17	56.7%	A
	Headteacher is concerned about the well-being of their collaborators	31	88.6%	SA	18	60%	SA
Middle leadership	Coordinating teachers available to listen to worries and debate strategies	19	54.3%	SA	14	46.7%	A
		15	42.9%	A	12	40%	SA
Culture and Environment	Common objectives were defined	19	54.3%	SA	13	43.3%	A
	Teachers feel appreciated	16	45.7%	A | SA	13	43.3%	A
	Teachers feel supported when implementing new ideas	17	48.6%	A | SA	11	36.7%	A | SA
	There is a good relationship among all teachers	18	51.4%	A	21	70%	A
		17	48.6%	SA	5	16.7%	SA
	There are time and physical space for interaction among teachers	18	51.4%	SA	17	56.7%	A
		16	45.7%	A	9	30%	SA

Scale: No Comment (NC); Not Applicable (NA); Strongly Disagree (SD); Disagree (D); Agree (A); Strongly Agree (SA).

Table A2. Perceptions regarding time, space, and student groupings.

Aspect	AE_X			AE_Y		
	>Freq.	%	Scale	>Freq.	%	Scale
Students' Perspective						
Chair and tables arrangement varies regularly depending on the work	74	43.5%	A	13	38.2%	D
	30	17.6%	D	8	23.5%	A
Classrooms are equipped with diverse resources (technology, malleable materials, etc.)	104	61.2%	A	16	47.1%	A
	27	15.9%	D	8	23.5%	D
Semestral calendar allows more time availability for better learning	63	37.1%	A	15	44.1%	A
	32	18.8%	D	7	20.6%	D | SA
Students' timetable promotes development of activities between different subjects	83	48.8%	A	21	61.8%	A
	33	19.4%	D	5	14.7%	SD
Instructional time limits the development of varied activities	67	39.4%	A	15	44.1%	A
	34	20%	D	8	23.5%	D
Teachers' Perspective						
Classrooms are suitable for flexible student grouping	21	60%	A	17	56.7%	A
Classrooms are equipped with various resources and materials	18	51.4%	A	18	60%	A
Classrooms are equipped with technological resources	20	57.1%	A	17	56.7%	A
Student timetables facilitate interdisciplinary activities	17	48.6%	A	13	43.3%	A
Instructional time limits the implementation of diverse activities	14	40%	A	15	50%	A
	9	25.7%	D	6	20%	D | SA

Scale: No Comment (NC); Not Applicable (NA); Strongly Disagree (SD); Disagree (D); Agree (A); Strongly Agree (SA).

Table A3. Student groupings, space, and time change frequencies.

Aspect	AE_X			AE_Y		
	>Freq.	%	Scale	>Freq.	%	Scale
Students' Perspective						
Development of outdoor activities	63	37.1%	R	15	44.1%	R
Lessons with 2 or more teachers	67	39.4%	OC	14	41.2%	N
Varied student grouping organisation	54	31.8%	A	17	50%	OC
Opportunities for students of different classes to work together are promoted	51	30%	O	18	52.9%	R
Teacher's Perspective						
Development of outdoor activities	18	51.4%	O	10	33.3%	OC
Lessons with 2 or more teachers	17	48.6%	O	9	30%	R | OC
Varied student grouping organisation	15	42.9%	O	10	33.3%	O
Opportunities for students of different classes to work together are promoted	12	34.3%	VO	11	36.7%	OC
	11	31.4%	O	10	33.3%	R

Scale: Never (N); Rarely (R); Occasionally (OC); Often (O); Very Often (VO); Always (A).

Table A4. Frequency of practices within the curriculum, strategies, and assessments of students.

Aspect	AE_X			AE_Y		
	>Freq.	%	Scale	>Freq.	%	Scale
Students' Perspective						
Content aligns with interests, questions, and curiosities of students	50	29.4%	OC	14	41.2%	VO
	48	28.2%	O	8	23.5%	OC
Content is relevant for students' life	39	22.9%	O	13	38.2%	O
	37	21.8%	VO	6	17.6%	A
New subjects promote richer and higher-quality learning	49	28.8%	O	10	29.4%	O
	36	21.2%	VO	9	26.5%	VO
Group work	58	34.1%	O	15	44.1%	OC
	52	30.6%	VO	5	14.7%	R | O | VO
Fulfilling interdisciplinary projects	56	32.9%	OC	11	32.4%	OC
	38	22.4%	O	8	23.5%	O
Interdisciplinary projects facilitate a more active role in the learning process	47	27.6%	O	10	29.4%	VO
	43	25.3%	VO	7	20.6%	R | OC
Use of different technological equipment between different subjects	50	29.4%	A	10	29.4%	O
	36	21.2%	O | VO	8	23.5%	R
Student assessments through different tools	37	21.8%	O	12	35.3%	A
	36	21.2%	VO	11	32.4%	VO
Teachers' Perspective						
Student involvement in activity planning in the learning process	19	54.3%	O	8	26.7%	OC | VO
Content linked to real-world issues, context within the school, and interests and curiosities of students	17	48.6%	O	9	30%	O
	12	34.3%	VO	8	26.7%	OC
Adoption of active methodologies	14	40%	O	8	26.7%	O
	11	31.4%	VO	7	23.3%	OC
Valuing of formative assessments	15	42.9%	A	11	36.7%	O
	12	34.3%	VO	9	30%	A
Regular use of student feedback	25	71.4%	A	13	43.3%	A
	5	14.3%	O | VO	10	33.3%	VO
Application of different assessment tools	20	57.1%	A	13	43.3%	A
	10	28.6%	VO	9	30%	VO

Scale: Never (N); Rarely (R); Occasionally (OC); Often (O); Very Often (VO); Always (A).

Table A5. Frequency of teaching practices.

Aspect	AE_X			AE_Y		
	>Freq.	%	Scale	>Freq.	%	Scale
Students' Perspective						
Teachers allow the students to choose the topics to address in class	54	31.8%	N	18	52.9%	N
	45	26.5%	R	10	29.4%	R
Teachers use varied teaching strategies	51	30%	OC	10	29.4%	O
	37	21.8%	O	8	23.5%	OC
Teachers provide feedback on completed work	55	32.4%	O	8	23.5%	OC | VO
	35	20.6%	A	7	20.6%	O | A
Teachers' Perspective						
Peer collaborative work integrated into the school timetable	18	51.4%	A	16	53.3%	A
	6	17.1%	O | VO	6	20%	VO
Planning of activities with peers in the same subject area	11	31.4%	O	11	36.7%	A
	10	28.6%	A	10	13.3%	O
Planning with peers in different subject areas	19	54.3%	O	12	40%	OC
	7	20%	OC	8	26.7%	O
Resource, strategies, and activity sharing between teachers	12	34.3%	O | A	13	43.3%	VO
	10	28.6%	VO	7	23.3%	O
Reflection among teachers about the activities, curriculum options, and effects on student learning	13	37.1%	A	11	36.7%	VO
	11	31.4%	O	7	23.3%	A

Scale: Never (N); Rarely (R); Occasionally (OC); Often (O); Very Often (VO); Always (A).

Notes

[1] Decreto-Lei nº 55/2018 de 6 de julho. Diário da República n.º 129/2018, Série I de 2018-07-06, 2928-2943.

[2] Portaria nº 181/2019 de 11 de junho. Diário da República nº 111/2019, Série I de 2019-06-11.

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