



Contextualized integral educational management to strengthen teaching and learning processes in primary education

Gestión educativa integral contextualizada para fortalecer los procesos de enseñanza y aprendizaje en educación primaria

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ABSTRACT

Introduction: Contextualized educational management offers an alternative for connecting curriculum, social participation, and territorial characteristics in rural settings. **Objective:** To analyze the contribution of a contextualized integral educational management strategy to strengthening teaching and learning processes in primary education at the Cruz Loma Educational Network, Coroico Educational District, Bolivia. **Methods:** A socio-critical study with a mixed-method approach and qualitative predominance was conducted through Participatory Action Research organized into two cycles during 2023 and 2024. Participant observation, in-depth interviews, reflection circles, surveys, and documentary review were used. **Results:** Good/very good ratings of family participation increased from 28% to 67% in planning, from 39% to 69% in implementation, and from 44% to 67% in evaluation. Student participation increased from 73% to 83%, Educational Council participation from 17% to 50%, curricular articulation with the Socio-Community Productive Project from 71% to 83%, and perceived community impact from 6% to 61%. The institutional average increased from 77.15 in 2022 to 80.99 in 2024. **Conclusions:** The integration of management, curriculum, and community favored more participatory and contextualized educational conditions, although the design does not allow exclusive causality to be attributed to the strategy.

Keywords: educational management; rural education; curriculum contextualization; community participation; participatory action research.

RESUMEN

Introducción: La gestión educativa contextualizada constituye una alternativa para articular currículo, participación social y características territoriales en contextos rurales. **Objetivo:** Analizar la contribución de una estrategia de gestión educativa integral contextualizada al fortalecimiento de los procesos de enseñanza y aprendizaje en educación primaria del Núcleo Educativo Cruz Loma, Distrito Educativo Coroico, Bolivia. **Métodos:** Se desarrolló una investigación desde el paradigma sociocrítico, con enfoque mixto de predominio cualitativo y mediante Investigación Acción Participativa organizada en dos ciclos durante 2023 y 2024. Se utilizaron observación participante, entrevistas en profundidad, círculos de reflexión, encuestas y revisión documental. **Resultados:** Las valoraciones buena/muy buena de la participación de madres y padres aumentaron de 28 % a 67 % en planificación, de 39 % a 69 % en implementación y de 44 % a 67 % en evaluación. La participación estudiantil aumentó de 73 % a 83 %, la del Consejo Educativo de 17 % a 50 %, la articulación curricular con el Proyecto Sociocomunitario Productivo de 71 % a 83 % y el impacto comunitario percibido de 6 % a 61 %. El promedio institucional aumentó de 77,15 en 2022 a 80,99 en 2024. **Conclusiones:** La integración entre gestión, currículo y comunidad favoreció condiciones educativas más participativas y contextualizadas, aunque el diseño no permite atribuir causalidad exclusiva a la estrategia.

Palabras clave: gestión educativa; educación rural; contextualización curricular; participación comunitaria; investigación-acción participativa.

INTRODUCTION

Improving teaching and learning processes is a challenge that goes beyond the teacher's role and affects the capacity of educational institutions to connect leadership, curriculum, social participation, and the characteristics of the context in which they operate. In recent years, school management has shifted from clearly administrative approaches to approaches that recognize its pedagogical, relational, and community dimension. From this perspective, managing an educational institution involves generating organizational conditions for learning, strengthening the capacities of all actors, orienting planning toward shared purposes, and creating lasting ties with families and the context. Accumulated evidence shows that school leadership is positively correlated with various educational outcomes and that this correlation depends on practices related to pedagogical guidance, strengthening teacher capacities, and building institutional conditions for learning [1,2].

This way of interpreting education is especially important in rural areas. The school has a very close relationship with the social, cultural, economic, and productive dynamics of the territory. The characteristics of these communities challenge the validity of homogeneous educational models that seek to transfer content and strategies without taking into account the experiences and learning of students and the community. Place-based education holds that learning becomes more meaningful when it proposes systematic links among curriculum, place, and community experience [3]. In Latin America, this discussion takes on another meaning because of the need to recognize rural communities as generators of knowledge, not merely as recipients of curricular proposals from other contexts. Consequently, rural teaching requires greater inclusion of cultural practices, local knowledge, and community knowledge in the educational proposal [4].

Curricular contextualization does not involve replacing the knowledge contained in national curricula with exclusively local content; rather, it entails constructing pedagogical mediations that enable school learning to be approached differently on the basis of problems, experiences, practices, and resources related to the territory. Under this logic, productive, environmental, or community activities can serve as spaces in which cognitive, communicative, social, or practical learning takes place when they are linked to curricularly established objectives. Experiences developed through school garden programs show that these spaces can relate academic content to general capacities, cooperation, and the ability to solve problems in concrete situations [5].

Another fundamental part of contextualized educational management is the participation of families and the community. Evidence accumulated over several decades shows a positive relationship between certain types of parental participation and students' academic achievement, although the magnitude of this relationship depends on the type of participation and the social and school context [6]. Therefore, family participation should not be limited to occasionally attending meetings or fulfilling tasks requested by the institution. Actions that enhance interaction between school, family, and community can contribute to learning, to the commitment of the actors, and to the improvement of educational relationships [7]. In rural contexts, family-school relationships have specific characteristics owing to the social proximity of the actors, the relevance of the territory, and families' participation in different dimensions of community life [8].

In Bolivia, these proposals are connected to the foundations of the Productive Sociocommunitarian Educational Model (MESCAP), which postulates education as an integral, communitarian, productive, and intercultural process oriented toward the transformation of reality [9]. The Base Curriculum of the Plurinational Educational System establishes that educational processes must respond to the problems, needs, and potentialities of a sociocommunitarian context, also favoring the articulation between knowledge, social practice, and community reality [10]. In addition, the curricular management orientations of the MESCP allow postulating the need to overcome the fragmentation between school and community through planning processes that enable the articulation of fields and areas of knowledge with socially significant knowledge [11].

Within this framework, the Productive Sociocommunal Project (PSP) serves as a mechanism for articulating educational action with the characteristics and needs of the territory. The conditions for developing contextualized proposals and strengthening the relationship between the educational institution and its environment are grounded in the curricular organization of the Plurinational educational model [12]. Similarly, the productive sociocommunal perspective proposes interdisciplinarity, research, and production as principles that can promote the articulation of learning with concrete community situations [13]. However, the existence of normative and curricular foundations does not by itself ensure their realization in the daily practices of educational institutions.

In the Cruz Loma Educational Nucleus, Coroico Educational District, Nor Yungas province,

Department of La Paz, the institutional diagnosis indicated difficulties related to participatory leadership, alliance building, the articulation between the contents of the Base Curriculum and the actions of the PSP, the use of contextualized materials, the diversification of learning strategies, and the participation of mothers and fathers in pedagogical accompaniment. Thus, the central problem lay not in the lack of normative guidelines but in the gap between the principles of the MESCP and the concrete ways in which these principles were incorporated into institutional, curricular, and community management.

Overcoming this gap requires more than incorporating local activities into the curriculum. It demands organizational processes through which teachers, students, families, and community representatives participate in identifying problems, planning actions, implementing, monitoring, evaluating, and readjusting the decisions made. Participatory Action Research (PAR) is particularly relevant for this purpose because it combines knowledge generation, participation, and transformation through successive cycles of reflection and action [14].

From this perspective, strategic management in context should be understood as a way of connecting the institutional, curricular, and community dimensions, granting a fundamental role to each of them in the management process. Institutional management would generate conditions for organization, leadership, and monitoring; curricular management would relate school content to meaningful situations; and community management would incorporate families, students, and social organizations into processes of co-responsibility. The interplay of these dimensions may also be relevant in rural contexts, where the boundaries between the educational institution, the community, productive activity, and daily life are not as marked as in other contexts.

Despite the development of research on school leadership, family participation, rural education, curricular contextualization, and participatory methodologies, these components are frequently studied separately. There is less situated evidence about how they can be operationally integrated and sustained over successive management cycles in Bolivian rural educational communities. In particular, it is necessary to understand how a strategy can articulate institutional management, curriculum, PSP, contextualized materials, community participation, and reflective evaluation without reducing contextualization to isolated activities or automatically attributing observed educational changes to a single intervention.

To address this problem, the Cruz Loma Educational Nucleus implemented a comprehensive contextualized educational management strategy during the 2023 and 2024 management years, through two cycles of Participatory Action Research. The proposal involved three complementary dimensions: institutional, curricular, and community. The PSP, linked to the production and consumption of healthy foods in the context, was conceived as an articulating axis; the Contextualized Educational Text (TEC) was used as a didactic resource to facilitate the relationships between the contents and the knowledge of the territory; and the various participatory and collaborative planning, monitoring, and evaluation processes sought to expand the co-responsibility of educational actors.

The scientific relevance of the study lies, therefore, not in presenting the PSP, curricular contextualization, or community participation as novel elements in isolation, but in examining their integration within a longitudinal management process developed in a rural Bolivian context. This approach enables the joint analysis of transformations in institutional practices, stakeholder participation, curricular articulation, and the evolution of educational indicators, while maintaining a prudent interpretation regarding the causality of the observed changes.

Therefore, the purpose of the research was to study the contribution of a comprehensive contextualized educational management strategy, developed at the Cruz Loma Educational Nucleus, Coroico Educational District, Bolivia, to enhancing the teaching and learning processes of rural primary education, through the integration of evidence on stakeholder participation, curricular articulation, qualitative transformations in management, and the evolution of institutional school performance during the 2023 and 2024 cycles.

METHODS

The study was conducted under the socio-critical paradigm, with a mixed-methods approach of qualitative predominance and with Participatory Action Research (PAR). This choice reflected the aim of understanding the educational management dynamics of the studied context while promoting transformation processes built with the participation of the educational community actors. PAR made it possible to connect knowledge production, action, and reflection through successive cycles in which participants took part in problem identification, action planning,

implementation, observation, and evaluation of changes [14].

The qualitative component focused on interpreting the experiences, practices, agreements, difficulties, and transformations that emerged during the implementation of the strategy; the quantitative component was descriptive and complementary, providing continuity in the analysis of frequencies, percentages, differences in percentage points, and institutional averages. The combination of both parts of the work allowed us to approximate and contrast the transformations perceived and observed during the implementation of the strategy, partially mitigating the limitations of institutional reports on school performance or participation indicators, curricular articulations, among others.

The research was conducted over two consecutive cycles of IAP during the 2023 and 2024 academic years. In each cycle, the phases of planning, action, observation, and reflection were carried out. In the second cycle, the lessons learned and difficulties identified in the first cycle were taken into account, allowing the actions to be adjusted, agreements to be strengthened, and the participation of the actors to be progressively expanded. This logic of collective construction and systematic review of practice is consistent with educational experiences in which IAP has been used to promote participatory processes of institutional transformation [15].

The research was conducted at the Núcleo Educativo Cruz Loma, which forms part of the Coroico Educational District in the province of Nor Yungas, department of La Paz, Bolivia. This nucleus comprises the Unidad Educativa Central Cruz Loma and five associated educational units: Santa Bárbara, Concepción, Santiago Grande, San Félix, and Miraflores. This context has marked rural characteristics, geographic dispersion, and an economy related to agricultural activities; all of these factors had to be considered in the development of the educational management strategy and in the selection of the Productive Sociocommunity Project (PSP), which is related to the production and consumption of healthy foods in this context.

The registered population for the primary level consisted of 17 teachers, 291 students, 21 members of Educational Councils, and 291 mothers and fathers. The selection of participants was non-probabilistic and intentional, consistent with the participatory nature of the research. Priority was given to actors directly linked to educational processes, with knowledge of the context and participation in the activities developed during the intervention cycles. Because the number of valid responses was not identical across all records, the quantitative analyses retained the denominators available in the original sources for each indicator. In particular, the indicator for the participation of mothers and fathers in the implementation had $n=18$ in the corresponding measurements, thus avoiding the artificial reconstruction of sample sizes different from those documented.

The comprehensive contextualized educational management strategy was structured around four interrelated components: participatory management, curricular contextualization, active methodological strategies, and accompaniment with reflective evaluation. Participatory management included awareness-raising, planning, organization, distribution of responsibilities, monitoring, and evaluation actions, with progressive participation by teachers, students, families, and representatives of the Educational Council. Curricular contextualization was developed by articulating contents from the Base Curriculum, knowledge of the territory, and experiences linked to the PSP. The Contextualized Educational Text (TEC) was used as a support resource to relate school learning to the situations, practices, and knowledge specific to the community.

The active methodological strategies comprised productive activities, projects, school garden work, educational fairs, and experiences related to healthy eating. These actions sought to transform community activities into learning scenarios in which students could apply content from reading, writing, calculation, observation, recording, communication, and appreciation of collective work. Accompaniment and participatory evaluation were developed through periodic spaces for observation, monitoring, reflection, and assessment of implemented actions. This articulation among the curriculum, community experience, and participation is consistent with research in which the curriculum is constructed and readjusted based on processes of contextualized collective action [16]. The PSP on the production and consumption of healthy foods served as the integrating axis of these components and included activities such as soil preparation, sowing, crop care, harvesting, preparation and dissemination of products, and promotion of practices related to healthy eating.

During the first cycle, corresponding to 2023, a participatory diagnosis of the main difficulties related to educational management, curricular articulation, and community participation was carried out. Based on the identified problems, the actions of the PSP were defined, responsibilities were organized, and activities linked to the productive and educational characteristics of the context were planned. Subsequently, the activities were implemented in the different courses, accompanied by observation and monitoring processes. During this stage, a considerable portion

of family and community participation was concentrated on operational activities related to the school garden, including land preparation, sowing, weeding, irrigation, harvesting, and socialization.

Upon completion of the first cycle, evaluation and reflection spaces were created, enabling the identification of strengths, difficulties, and adjustment needs. Among the main aspects observed was the need to shift from predominantly operational participation toward more active involvement of families and the Educational Council in planning, decision-making, monitoring, and evaluation processes. During the second cycle, conducted in 2024, these lessons informed the readjustment of the strategy. Agreements with the Educational Council were strengthened, the responsibilities of mothers and fathers were specified, their involvement in planning and evaluation spaces was expanded, and the articulation between curricular contents and PSP activities was systematized with greater clarity. Furthermore, evaluation was no longer concentrated exclusively at the end of activities but was instead carried out through periodic review sessions. In this way, the planning-action-observation-reflection sequence allowed the second cycle to incorporate the lessons learned from the first and to deepen the actions deemed pertinent to the context.

For data collection, participant observation, in-depth interviews, reflection circles, a survey, and documentary review were used. Participant observation enabled the recording of forms of organization, educational practices, levels of participation, and the development of activities associated with the PSP. In-depth interviews gathered experiences and perceptions regarding educational management and the transformations observed during the intervention. Reflection circles served as collective spaces for analyzing progress, difficulties, responsibilities, and readjustment needs. The survey provided structured information on participation, curricular articulation, and perceived community impact.

The instruments used were observation guides, interview guides, reflection sheets, and questionnaires with closed and open questions. In addition, minutes, curricular plans, PSP activity records, and other institutional documents were reviewed. For the analysis of the evolution of school performance, statistics from the Educational Information System (SIE) were used.

The information was organized around three main dimensions: institutional management, curricular management, and community management. Institutional management comprised processes related to leadership, planning, organization, accompaniment, and evaluation. Curricular management included contextualization of contents, articulation between the Basic Curriculum and PSP, use of TEC, and development of methodological strategies linked to context situations. Community management comprised the participation of students, mothers and fathers of families, and the Educational Council, as well as the relationship between school and community. Within these dimensions, subcategories related to productive education, contextualization, capacity development, PSP articulation, social commitment, and family participation were considered.

For the quantitative component, seven indicators comparable between 2023 and 2024 were analyzed: participation of mothers and fathers in planning, implementation, and evaluation; student participation; participation of the Educational Council; articulation of curricular contents with the PSP; and community impact. Qualitative information was examined through categorical analysis. Initially, records from observations, interviews, reflection circles, and institutional documents were systematized; subsequently, the information was grouped according to the defined dimensions and subcategories, identifying patterns, coincidences, differences, and transformations between the 2023 and 2024 cycles.

The qualitative analysis was specifically oriented toward recognizing changes related to co-responsibility, participation, curricular contextualization, PSP articulation, student autonomy, and school-community relationship. The interpretations were contrasted through triangulation among techniques and sources, relating observed practices, actors' perceptions, and available institutional records.

The quantitative component was processed using descriptive statistics. For the participation and articulation indicators, the five categories originally used were retained: none, little, fair, good, and very good. For comparative purposes, the combined proportion corresponding to the good and very good categories was also calculated. The changes observed between 2023 and 2024 were expressed as absolute differences in percentage points, allowing comparison of the magnitude of the variations recorded in each indicator without modifying the original scales of the instruments.

Institutional school performance was analyzed using the annual averages recorded in the SIE for first to sixth grades of primary education corresponding to the 2022, 2023, and 2024 academic years. The year 2022 was used as an institutional reference prior to the start of the systematized cycles; 2023 corresponded to the first implementation cycle and 2024 to the second. Averages by grade, the institutional average, and interannual differences were compared. These records were used as complementary information to describe the institutional evolution during the period

studied. Because the research did not include a control group, random assignment, or statistical control of external variables, the observed differences were not interpreted as causal estimates of the effect of the strategy.

The integration of the mixed-methods approach was carried out through triangulation and joint interpretation of the findings. The quantitative changes recorded in family participation, student participation, participation of the Educational Council, curricular articulation, and community impact were contrasted with the qualitative evidence obtained through observation, interviews, reflection circles, and documentary analysis. Thus, a percentage increase was not considered in isolation as sufficient evidence of transformation but was interpreted jointly with observed modifications in the responsibilities of the actors, forms of planning, curricular articulation, monitoring practices, and evaluation spaces.

The research was conducted under principles of voluntary participation, confidentiality, respect for educational actors, and responsible use of information. Individual participant identities were not used as an analytical element, and results were presented in aggregate. Testimonies and qualitative records were interpreted as contextual evidence, avoiding extrapolation of findings beyond the Núcleo Educativo Cruz Loma. Likewise, actors participated in spaces for reflection and evaluation of the processes developed, in correspondence with the participatory character of the research, and institutional and academic records were used exclusively for the purpose of analyzing the educational process.

RESULTS

The two cycles of Participatory Action Research evidenced progressive modifications in the way the educational community engaged with the planning, implementation, and evaluation of the actions developed. During 2023, community participation was mainly associated with operational activities of the Productive Sociocommunity Project, including soil preparation, sowing, weeding, irrigation, harvesting, and socialization of products. These activities allowed expanding the presence of families and students in the school dynamics, although a logic of collaboration focused on the execution of previously defined tasks still predominated.

During 2024, a qualitative transformation was observed in this dynamic. Planning incorporated, with greater clarity, agreements with the Educational Council and a more defined distribution of responsibilities between mothers and fathers. Likewise, evaluation spaces began to take place periodically and not only at the end of activities. The main change was related to the transition from predominantly operational participation to an intervention that incorporated planning, monitoring, reflection, and shared decision-making.

In the curricular dimension, the PSP evolved from a complementary productive activity toward an axis for articulating learning. Activities related to vegetable production and healthy eating were linked to reading, writing, calculation, measurement, observation, description, recording, and socialization of experiences. In this way, the school garden progressively functioned as a space for applying curricular content and not only as a productive activity.

Greater student autonomy was also identified during the second cycle. Upper-level courses assumed responsibilities related to organization, garden care, activity recording, and learning socialization, whereas younger students required closer support from teachers and families. This difference shows that student participation evolved in a differentiated manner according to the characteristics and responsibilities assigned to each group.

The experience also showed signs of extension from the school to some households. During 2023, recipe books, gastronomic activities, and actions aimed at promoting vegetable consumption were developed. In 2024, during the evaluation sessions, some families reported having incorporated the production and consumption of vegetables in their homes and even the commercialization of certain surpluses. This result was interpreted as contextual evidence of appropriation of some practices and not as a homogeneous effect on all participating families.

The participation of mothers and fathers showed improvements in the three phases examined. In planning, the ratings of good and very good increased from 28% to 67%, equivalent to 39 percentage points, while the ratings of none and little decreased from 45% to 6%. In implementation, the favorable rating increased from 39% to 69%, and in evaluation, from 44% to 67%. The presence of simultaneous improvements in planning, implementation, and evaluation shows that the variation was not concentrated in a single phase of the process.

Student participation started from a favorable level: 73 % in the good and very good categories during 2023. In 2024 it reached 83 %, while the regular category decreased from 28 % to 17 %.

Qualitative records accompanied this behavior by showing greater autonomy in organization, care, recording, and socialization activities, especially among students in higher-level courses.

Table 1. Changes in the indicators of participation, curricular articulation, and impact between 2023 and 2024

Indicator	Good/very good 2023	Good/very good 2024	Variation (pp)	None/little 2023	None/little 2024
Participation of PPFF in planning	28 %	67 %	+39	45 %	6 %
Participation of PPFF in implementation	39 %	69 %	+30	22 %	5 %
Participation of PPFF in evaluation	44 %	67 %	+23	17 %	6 %
Student participation	73 %	83 %	+10	0 %	0 %
Participation of the Educational Council	17 %	50 %	+33	22 %	6 %
Content-PSP articulation	71 %	83 %	+12	0 %	6 %
Perceived community impact	6 %	61 %	+55	33 %	6 %

Note. pp = percentage points; PPFF = mothers and fathers of families.

Participation of the Educational Council increased from 17% favorable ratings in 2023 to 50% in 2024. In parallel, the category 'little' decreased from 22% to 6%. However, 44% remained in the category 'regular' during 2024, a result indicating that its incorporation into planning and monitoring processes was still being consolidated.

The articulation of curricular contents with the PSP went from 71% to 83% of good and very good ratings. The quantitative change was accompanied by a qualitative transformation in the use of productive activities, which began to be related more systematically to reading, writing, calculation, measurement, observation, and recording.

The perceived community impact showed the greatest variation: the good and very good ratings increased from 6% in 2023 to 61% in 2024. Simultaneously, the poor category decreased from 33% to 6% and the regular category from 61% to 33%. This behavior was consistent with the records on the incorporation of certain productive and dietary practices in some households, although the indicator was interpreted as a perception and not as an experimental measurement of community impact.

The institutional weighted average increased from 77.15 in 2022 to 80.03 in 2023 and 80.99 in 2024. The increase was 2.88 points between 2022 and 2023 and 0.96 points between 2023 and 2024. Between the extremes of the period, the difference was 3.84 points. The biennial average 2023-2024 was 80.51, equivalent to 3.35 points above the 2022 figure.

Evolution was not uniform across courses. First A recorded the largest difference with respect to 2022, although its maximum occurred in 2023. Second and third showed progressive increases. Fourth initially decreased in 2023 before reaching 81.06 in 2024; fifth presented its highest average during 2023; and sixth maintained an upward trajectory. This heterogeneity shows that the favorable institutional trend did not correspond to a linear and identical behavior in all courses.

Table 2. Evolution of academic performance by grade between 2022 and 2024

Course	2022	2023	2024	Variation 2022-2024
First A	71,55	82,58	80,74	+9,19
Second A	81,99	83,03	84,36	+2,37
Third A	78,11	79,11	80,30	+2,19
Room A	78,58	76,52	81,06	+2,48
Fifth A	78,21	80,69	80,10	+1,89
Sixth A	74,48	78,23	79,35	+4,87
Weighted institutional average	77,15	80,03	80,99	+3,84

Note. Data from the Educational Information System.

Overall, the results show that the transformations of greatest magnitude were concentrated in family participation, the intervention of the Educational Council, and perceived community impact. Curricular articulation and student participation also evolved favorably, although they started from higher initial levels.

Table 3. Integration of quantitative and qualitative evidence between the 2023 and 2024 cycles

Dimension	Main quantitative change	Qualitative evidence	Integrated result
Family participation	Planning +39 pp; implementation +30 pp; evaluation +23 pp	Greater distribution of responsibilities and incorporation in planning and evaluation	Transition toward greater co-responsibility
Student participation	73 % → 83 %	Greater autonomy in organization, care, record-keeping, and socialization	Progressive expansion of responsibilities
Educational Council	17 % → 50 %	Greater incorporation in agreements and follow-up	Strengthening of participation, still in consolidation
Curricular articulation	71% → 83%	Orchard linked to reading, writing, calculation, measurement, and recording	Evolution of the PSP towards a contextualization axis
Community impact	6% → 61%	Some families reported producing and consuming vegetables.	Extension of practices to some households
Institutional performance	77.15 → 80.99	Differentiated trajectories between courses	Favorable trend without causal evidence

Note. pp = percentage points.

The qualitative evidence allowed these changes to be interpreted as part of a progressive process of reorganization of responsibilities, contextualization of learning, and expansion of decision-making spaces.

DISCUSSION

The conclusions obtained also show that the main change, configured by the two implementation cycles, did not refer specifically to a particular educational action, but rather affects the cycles of institutional management, curricular development, and community participation. The step we observe from 2023 to 2024 highlights that, if contextualized, the contextualization acquired greater maturity when it went hand in hand with planning, distribution of responsibilities, monitoring, and spaces for reflection that are carried out periodically. This interpretation is also in agreement with the evidence that recognizes school leadership as a factor associated with different kinds of institutional and educational outcomes; however, its effects depend on how management practices set in motion the pedagogical and organizational conditions [1,2]. Even a second-order synthesis in which a meta-analysis was conducted also identified a global positive relationship between school leadership and educational outcomes, reaffirming the idea that it is the institutional direction and organization that can indirectly influence learning processes [17].

In Cruz Loma, this relationship was particularly evident in the strengthening of planning and follow-up spaces during the second cycle. The change cannot be interpreted solely as an increase in activities, because qualitative records indicate that the strategy evolved from a dynamic centered mainly on executing PSP actions to another in which families, the Educational Council, teachers, and students assumed more differentiated responsibilities. The contribution of comprehensive management seems to lie precisely in this capacity to connect actions that could initially be developed in a fragmented manner and orient them toward common objectives.

Among the most consistent findings was the increase in the participation of mothers and fathers. The good and very good ratings increased 39 percentage points in planning, 30 in implementation, and 23 in evaluation. The fact that the improvement appears in all three phases is relevant, because it indicates an expansion of participation beyond operational collaboration. The literature shows that interventions aimed at strengthening the family-school relationship can improve the quality of relationships between parents and teachers and generate favorable conditions for educational accompaniment [18]. Likewise, accumulated evidence indicates that the benefits associated with parental participation depend on the specific characteristics and modalities of involvement, so not all family presence automatically produces the same results [6,19].

This consideration is especially important for the interpretation of the case studied. The participation recorded during 2023 was largely related to concrete activities such as land preparation, sowing, irrigation, and harvesting. In 2024, however, spaces for planning, deliberation, and evaluation increased. Therefore, the most important outcome would not be only a greater amount of participation but a progressive change in its nature. Studies on culturally relevant associations between indigenous families and schools have pointed out that strengthening parental agency, contextualized communication, and participation in decisions can foster more

horizontal educational relationships [20]. Although these contexts are not exactly the same as the context studied, the way they are addressed coincides with the evolution observed from operational support toward greater shared responsibility.

It should be avoided, however, assuming that the increase in family participation directly explains the evolution of academic performance. Meta-analyses show positive associations between parental involvement and certain school outcomes, but they also evidence variations according to types of involvement, learning areas, and socioeducational conditions [19,21]. In this study, family participation should be interpreted mainly as a transformation of management and support conditions, and not as an isolated variable capable of explaining academic changes by itself.

Participation in the Educational Council is a second significant outcome. Positive ratings changed from 17% to 50% while those of low participation decreased. With 44% remaining at a regular level in 2024, it was indicated, however, that the process was still in a consolidation phase. This trend is in line with the progressive nature of IAP: there is no immediate advent of institutional changes but rather they are generated from processes of negotiation, criticism, and new distribution of roles [14, 15]. In this sense, community participation can have greater transformative potential when the classifications of community organizations are what set the course for what types of decisions should be built and not only those that must be executed.

This interpretation is particularly important in the rural context. The school does not operate as an institution completely separate from territorial dynamics, but rather as a space in which community relations, productive practices, local knowledge, and identities converge. Research on rural schools has shown that the territory can become an object and setting for educational construction when actors participate in understanding their problems and generating collective proposals [22]. In Cruz Loma, the growing participation of the Educational Council and families led the PSP to shift from an activity more closely linked to production to a process of greater institutional and community integration.

The percentage of good/very good ratings for the articulation of content with the PSP increased from 71% in 2023 to 83% in 2024. Although the increase was smaller than those observed for family participation or community impact, it should be noted that this indicator already had a relatively high initial level. The most important aspect was not the percentage difference but the qualitative change that took place: production and healthy eating activities began to be more systematically related to reading, writing, calculation, measurement, observation, recording, and socialization.

This result is consistent with the principles of territory-based education and curricular contextualization discussed previously [3,4]. Experience suggests that contextualizing is not merely a matter of adding examples from the environment to previously established content. It requires transforming contextual situations into structured learning opportunities. The PSP achieved greater pedagogical value when the productive activity was accompanied by questions, records, calculations, readings, written productions, and communication processes.

School gardens constitute a particularly illustrative example of this transformation. Available reviews show that school garden programs can contribute to students' knowledge related to food, attitudes, and certain practices, although their results depend on the design and implementation approach [23]. From a critical pedagogical perspective, it has also been noted that a garden can be interpreted as a predominantly productive space or as an educational setting capable of integrating scientific, cultural, social, and environmental content [24]. This distinction helps explain the evolution observed in Cruz Loma: during the first cycle the productive component tended to predominate, whereas in the second the garden acquired a greater capacity to function as a setting for curricular articulation.

The use of the Contextualized Educational Text reinforced this orientation by allowing knowledge and experiences from the territory to be incorporated more systematically into educational activities. The result is consistent with participatory research experiences that propose a curriculum built in interaction with the community and susceptible to being readjusted based on cycles of action and reflection [16]. The contribution of the TEC should not be understood as a substitute for the Base Curriculum, but rather as a mediation between national curricular purposes and the concrete experiences of the context.

Student participation also showed a favorable increase, although of smaller percentage magnitude: it rose from 73% to 83%. This difference should be interpreted considering that the initial level was already high. Qualitative evidence revealed an additional aspect that percentages alone did not reveal: students in higher grades progressively assumed organizational, care, record-keeping, and socializing responsibilities, while younger students required greater support. This indicates that autonomy did not occur uniformly, but rather was related to age, available

responsibilities, and real opportunities for intervention.

The characteristics of the PSP are related to principles inherent in project-based learning, especially when students participate in activities oriented toward concrete products, problems, or purposes. A meta-analysis on project-based learning found favorable effects on academic outcomes, attitudes, and thinking skills [25]. Although the Cruz Loma PSP is not directly equivalent to the designs included in that meta-analysis, the comparison allows us to argue that contextualized activities can acquire greater educational potential when they integrate knowledge application, problem solving, collaboration, and the production of observable results.

CONCLUSIONS

The two cycles that took place in 2023 and 2024 showed a progression from an initial practice centered on the execution of activities to an organization with greater shared planning, monitoring, reflection, and delegation of responsibilities. This process reveals that educational contextualization becomes more consistent when carried out within institutional management and not through pedagogical initiatives that cannot be considered pedagogical practices.

The participation of the different educational actors showed notable progress during the intervention period. The proportion of favorable assessments given by parents increased from 28% to 67% for planning, from 39% to 69% for implementation, and from 44% to 67% for evaluation. Similarly, student participation rose from 73% to 83%, and that of the Educational Council from 17% to 50%. These results indicate that the strengthening of co-responsibility depended not only on a greater presence of the actors, but also on their progressive incorporation into decision-making, accompaniment, and evaluation processes of the actions carried out.

The articulation between the curricular contents and the Productive Sociocommunity Project, which was previously at 71%, rose to 83% and, furthermore, a qualitative transformation occurred in the way the PSP was used. In the second cycle, productive activities ceased to be complementary in nature and began to be linked more systematically with reading, writing, calculation, measurement, observation, recording, and socialization. In this process, the Contextualized Educational Text contributed to connecting the purposes of the Base Curriculum with experiences and knowledge from the territory, facilitating a contextualization more in line with the characteristics of the educational community.

The evaluated community impact was the indicator that showed the greatest variation among those analyzed, going from 6% favorable ratings in 2023 to 61% in 2024. Qualitative records showed that some families were implementing vegetable production-consumption practices at home, and it was even reported that in some families there was a certain commercial exchange of surpluses. These findings indicate that some experiences developed at school came to be shared with family and community spaces, but they can be considered as evidence of the context itself and of transfers, rather than as evidence demonstrating a general impact or a homogeneous impact applied to all families.

Institutional academic performance showed an upward trend during the study period, rising from 77.15 in 2022 to 80.03 in 2023 and 80.99 in 2024. This evolution coincided in time with the development of the two cycles of the strategy, although the differentiated trajectories between courses and the absence of an experimental design mean that we cannot attribute the increase exclusively to the intervention. Thus, the results support a favorable association between the strengthening of management, community participation, curricular contextualization, and the institutional evolution of learning, but they do not establish a direct causal relationship.

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