

Participative Management and Socio-Environmental Sustainability: a Study of Public Schools of Sobral, CE, Brazil

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Abstract

In this study we analyze indicators of the influence of participative management on the development of school projects envisaged by the Direct Funding in the School Program – Sustainable Schools (Programa Dinheiro Direto na Escola – PDDE – Escolas Sustentáveis), which aimed to promote socio-environmental education. Data were generated through semi-structured interviews with principals, teachers, coordinators, and students in four schools included in the program. Based on a group of 15 participants, results confirm the premise that participative management, with the addition of institutional financial support for school projects, enriched both the school and social community regarding issues of conservation and preservation of the environment for the purpose of enabling better quality of life for present and future generations. Broad participation and discussion were the foundation for identification of the meanings/sense (import) the participants attach to their actions and achievements in the schools. This culminated in creating what we here designate as indicators of socio-environmental sustainability in schools with participative management.

Keywords: financial resources, participative management, socio-environmental sustainability projects, public schools.

Introduction

In recent decades, society has made new demands on schools in all respects. This has placed new challenges on educational professionals, among which are understanding and including principles of sustainability in daily life. Unfortunately, it seems this theme has not been treated with due necessity, importance, and high profile. Socio-environmental issues that are part of and experienced in educational communities are of crucial importance for the quality of life of current generations and, even more, for that of future generations.

The school is a source of human, social, and educational development and, as such, must not fail to engage in support for the environment and to consider this activity through consolidation of participative management. In addition, the school should take the initiative of assuming this role and the challenge of motivating and guiding the engagement of the inside and outside community so that all participate together in construction and preservation of principles that lead to socio-environmental development (LOUREIRO; AZAZIEL; FRANCA, 2003). The school will thus seek to promote environmental education through its own projects, directed and developed in processes of coparticipation. At the same time, it will gradually modify its traditional management structure toward another based on the premises of participative management.

It is known that the need for the school to implement projects that develop environmental education is linked to the requirement of training and educating citizens that are able to interact in a sustainable society in which a *green economy* prevails, i.e., “one that results in improving the well-being of humanity and in social equality, at the same time that it significantly reduces environmental risks and ecological scarcity” (VELLOSO et al., 2012, p. 15).

The convergence and the pertinence of these issues for contemporary problems leads to an attempt to consider one more dimension that may improve quality in Education with reintegration on the triple foundation of ‘*management-community-participation*’. Therefore, the methodology adopted in this study was developed to understand the result of application of

financial resources from the federal government used as a means of disseminating principles of sustainability and promotion of environmental education in the school.

This was the central theme examined in the doctoral dissertation defended by Brito (2016), who approached it from the perspective of one issue: conservation of the environment as an educational challenge in the day-to-day life of schools of the public education system, specifically in the city of Sobral, state of Ceará, Brazil. The objectives of the dissertation were realized in the study of four schools that stood out from the others in terms of management and learning. The data that documents the investments applied in socio-environmental sustainability projects in these schools were used as a strategy, as well as the data that corroborated the choice of these spaces as the most appropriate, since the investment in the Direct Funding in the School Program – Sustainable Schools (Programa Dinheiro Direto na Escola – PDDE – Escolas Sustentáveis) generated quite positive results. We also decided to diversify the participants to involve different levels of activity. Therefore, it included members of management, coordinators, teachers, and students.

School: agent of a transformational environmental education

The perspective of **sustainable schools** adopted in this paper is that recommended by the Ministry of Education in Resolution CD/FNDE no. 18 of 21 May 2013. According to this Resolution, there is a very close relationship between the school and the environment, and the effort of putting in practice the principles that arise from this relationship is what provides balance in the face of the impact from development of technologies. School management is presented and cited as one of the important dimensions in this process of transition to sustainability.

Sustainable development is understood as a strategy implemented in a collective manner that produces the necessary economic growth so as to ensure conservation of the environment and social development for present and future generations. Education, for its part, as a pioneer in transmitting and shaping opinions, can be associated to carry out projects and activities that observe the principle of the responsibility humans have for future generations. Using natural resources in a conscientious manner may represent a new manner of economic development that takes into account respect for the environment. Thus, sustainable development requires implementation of innovations in educational systems and processes and in the teaching-learning process (NEWTON et al., 2011).

Based on the insight of Beraldo and Pelozo (2007), our premise is that a common, implemented, disseminated, and shared view among those that make up a school community can contribute to constructing objectives, goals, and theoretical and practical procedures to be followed in constructing a School Development Plan, a document that provides support and systematic orientation for funding and pedagogical projects. It is also important to consider that since it is a public space, the school should be a place that is open and common to all, with the offer of full openness to the participation of its users, directing and being directed by all in a responsible and shared manner.

In this respect, a point of consensus is that the school will always have the role as an agent of a transformational environmental education to the extent that it takes upon itself the vision of essential responsibility in educating citizens that are aware of the future consequences of their present actions. Socio-environmental sustainability dealt with in the context of participative management has strongly promoted development of this awareness.

Participative management in the context of environmental sustainability

Some conceptual aspects that clarify the relationship between participative management and environmental sustainability are hereby presented in a summarized manner. Participation of all citizens on behalf of sustainability or of environmental conservation is a suitable process for success. When a human being begins to develop in a multifaceted manner or in community, ideas and ways of carrying out actions emerge that probably would not have been thought of in individual terms. In the same way, sustainable actions are always innovative and can arise from all age ranges, social classes, and educational levels. In this perspective, the idea of **eco-communitarianism** is fitting, which, according to Velasco (2015), consists of

[...] the post-capitalist socio-environmental order in which human beings are reconciled with each other to jointly allow and encourage full development of each subject and reconcile themselves with the rest of nature, maintaining a permanent position of conservation and regeneration before it (VELASCO, 2015, p. 156).

Eco-communitarianism can be understood as a form of community action, directed to development of actions and values that aim at conservation of the environment and carrying out practical actions toward sustainability. Thus, the process of

transition to a more sustainable society grows from structuring an interdisciplinary and integrated view of knowledge and of education, which can only occur through a holistic practice of interaction and integration of all the agents involved in the educational process (NEWTON et al., 2011). That is because, according to Brito (2013), in all the perspectives of unity of the school with the community, leadership and empowerment are presupposed as key elements in the process.

Leadership and empowerment are abilities that can be learned, achieved, and made concrete in the sphere of school management. However, they require a deep process of reflection and of adequate direction toward the exercise of autonomy and protagonism in making decisions and acting responsibly. Leadership that acts under these principles tends to correspond to the most legitimate aspirations of the school community and to active exercise of citizenship. Thus, sustainability internalized in a deep way in the mentality of the agents involved can become a type of tool so that this approximation is realized. From the very nature of the concept and of the vision to which it corresponds, being sustainable implies thinking in the direction of the other and of the environment in the perspective of perpetuity, a concept that contrasts with superficiality.

This could be the focus of teaching institutions, which should not emphasize only the question of student output, but also students' integrated development, their ability to live in an ethical and harmonious manner in society, and their competence in making sustainable decisions throughout life. The crucial question is that leadership can contribute to changes in the manner in which students, parents, and community perceive the value of a sufficiently good education in their lives. From this perception, it is tangible for the leader to act positively in involving the parties in this new perspective of life together. In short, for there to be sustainable development, participation is a primary presupposition.

Methodology of the study carried out

This article refers to a doctoral dissertation (BRITO, 2016) which investigated the impact of participative management on actions directed to environmental sustainability in the day-to-day activity of four schools. A differential aspect was analysis of the context of federal government participation through financial investment in the projects idealized by the school community and the possibilities that emerged from joint management of these resources.

The approach used in this investigation was founded on qualitative research, with an emphasis on the descriptive-analytical nature. The **semi-structured interview** was used as a technical instrument and allowed incorporation of the meanings and intentions present in the actions, relationships, and social structures of the community investigated, valued by the researcher as significant human constructions (BARDIN, 2011). Qualitative analysis was thus appropriate for studying the history, the social relationships, interactions, and representations, the beliefs, the perceptions, and the judgments that result from the interpretations that humans make regarding their own way of life, the objects that they construct, how they construct themselves, and how they feel, idealize, and think (TURATO; RICAS; FONTANELLA, 2008).

In addition to the semi-structured interview, a procedure that allowed primary data to be obtained, on-site observations (the plan of which was composed by what was registered and later systematized from the field notes) and documental analysis were performed. Field notes were considered as everything that was registered from the spontaneous episodes observed during the process of data generation. Traditionally, there is a set of rules that advocate previous planning of on-site observations (LÜDKE; ANDRÉ, 2003); however, considering the aims of this study, this was not elaborated a priori. The option was made to follow the natural flow allowed by the empirical context. Events that emerged were registered when considered relevant and pertinent for achieving the goals.

In **on-site observation**, it was noteworthy how what emerged from the context assisted in obtaining and identifying more concrete elements that were legitimated by spontaneity in the activity of the participants. This may constitute an indirect form of validation of the data. For Lakatos and Marconi (2002), those are elements and aspects that participants are not aware of; yet, they are what guides their behavior in that environment. These authors state a relevant point, because spending some time in the research environment played a fundamental role in establishing more direct contact with the reality investigated.

Documental analysis was the extensive research conducted through official data. The resolutions of the PDDE and PDDE-Sustainable Schools, the pedagogical-policy projects of the schools under study, the texts taken from legislation pertinent to the theme, and the institutional sites constituted the body of documents used to complement and enrich the data. In deeper investigation, through the process of analysis and interpretation, elements of Content Analysis were adopted as a manner of decodifying the information obtained. To do so, procedures were diversified, placing more emphasis on those

that proved to be more appropriate within the material to be analyzed, which included "lexical analysis, category analysis, enunciation analysis, connotation analysis" (CHIZZOTTI, 2006, p. 98). By this last type of analysis, it is understood that in addition to the words expressed by the participants and the meanings of the words, it was also necessary to reveal the meaning/sense that was communicated at the time of speaking, above all, because we are dealing with different segments of the school community. It is known that each one of them perceives reality from a quite particular point of view, according to the place occupied in living and working together.

To come to the categories and indicators, the set of procedures belonging to **Content Analysis (CA)** of Bardin (2011) was used in organization and analysis of the data generated. In a broader perspective, this technique of analysis is understood to have contributed by proposing a set of categorization procedures, whose objective consisted of the attempt to understand the message both by means of words spoken by the participants and the meaning or meanings/sense that could emerge from the word.

Most authors refer to CA as a technique of word analysis that allows inferences regarding what was communicated by the participant to be made in a practical and objective way. The transcribed text is treated as a means for him to express himself and for the researcher, in the role of analyst, to seek categories from units of the text that are repeated. In this analysis, ever shorter and more inclusive expressions are found that represent the categories. This was performed by categorical analysis, characterized "by operations of dismembering the text into units, into categories according to analogical regrouping" (BARDIN, 2011, p. 153).

The **categories** were constructed according to the themes that emerged from the transcribed text. Classifying elements of utterances into categories began with identification of what they had in common so as to be able to make such groupings. Pre-analysis was performed, an organizational phase of the data generated, and, after that, skimming the text, the choice of documents that demarcated the corpus of analysis, and the formulation of indicators that directed the interpretation and formal preparation of the material (BARDIN, 2011).

Formulation of the **qualitative indicators** constituted the most important point of these procedures since they systematized orientation toward the results of the study. They more tangibly expressed the results of good articulation among participative management, fostering of socio-environmental projects by the federal government, and sustainable development in the schools under study. These indicators, defined from the categories found, contained the "(literal) meaning" and the "meaning/sense" of the data generated. From them, it can be affirmed that **participative management in the sphere of the funding of socio-environmental school projects helped bring about educational projects directed to sustainable development.**

The phase that works with the results occurred through inference and interpretation of concepts and proposals. According to Bardin (2011), this is the time in which the intuition of the investigator flows in reflexive and critical analysis of the information, beyond the explicit content of the documents, through the search for content that is underlying or implied or the (literal) meanings and the meanings/sense that is hidden between the lines and beyond that which is immediately perceived and assimilated.

The semi-structured interview and the analytical-interpretive process of the data

This interview technique was chosen because it made it possible for the researcher to draw nearer the perspective of the interviewees and understand or pick up the "hidden" aspects in relation to the data (ROESCH, 1999, p. 159).

The group of people interviewed was limited to those directly involved in implementation of the program developed in the schools of the municipality of Sobral. A total of 15 participants was interviewed, all employees of the Department of Education. The four schools defined as the "sphere of investigation" will be identified as School A, School B, School C, and School D to respect the requirement of anonymity in accordance with the Free and Informed Consent Form signed by all the participants.

Each segment – principals, teachers, students, and coordinators – was identified by the respective name of the segment and the letter of the school, adding numbers according to the number of those in the segment in each school; for example, "Student 1, School A", "Teacher 2, School B", "Coordinator, School C", and so forth. All the schools mentioned were visited and their operation was observed on site. The highest percentage of participation reached was in the student segment (33.4%), followed by the managers (26.6%), teachers (20%), and coordinators (20%).

That way, ever shorter and more inclusive expressions are found that represent the categories. The data generated from the different segments allowed information to be mapped in relation to participative management and its implications for organization and carrying out sustainable development projects in the schools under consideration. It was possible to define elements to better understand the ways of deciding about application of financial resources, as well as to identify those in the school community that more directly participated in this process. Furthermore, some efficiency indicators were examined from reports – provided by participants – regarding the results achieved by the projects developed in their respective schools. At the time of visits, the researcher had the opportunity of verifying how each school dealt with the challenge of implementing (through participative management) sustainable development projects that promoted socio-environmental education.

To ascertain that the questions were clear and to ensure better quality in the process of generating data, a pilot study was undertaken on the semi-structured interview, with the number of people invited to participate subtracted from the overall group to be interviewed. The same series of questions was used in all the interviews, for the purpose of gathering the impressions of each participant without restricting their freedom to express concepts, ideas, and perceptions related to the theme at hand.

To achieve a greater level of understanding, articulation between the different perspectives of data analysis and of data interpretation was necessary, understanding that these actions are not isolated from each other. Solely as a question of didactic organization, the two processes, in name, appear at different times. Following Ribeiro (2016), the analytical-interpretive perspective preserves the feature of unity, of intersection, and of interaction between analysis and interpretation. It is necessary to stimulate researchers to break with the habit of excessive ordering, often induced by concern in making oneself understood in the “analytical and imaginary space of writing” (PAUL, 2009, p. 302).

Results and discussion: the way to the categories

Documental interpretation was directed to results with theoretical purposes, with the expectation of insights that would emerge from the data and which could be incorporated in the theoretical corpus of the area of study or of the baseline investigated. Division into and grouping of smaller units of analysis or **logging units** (LU), the step after **skimming the text**, resulted in the **categories**. This consisted of organization of broad categories grouped analogically from segmentation of the text *in verbatim* from each interview. This process occurred through identification of the first **emerging macroconcepts**, without concern for the traditional criterion of repetition of words, phrases, or expressions. Excerpts from the text were taken insofar as they presented a complete assertion related to the object under study. This first focused on each text, and then the repetitions were integrated and joined in the excerpts of texts analyzed and interpreted together.

Three categories emerged: **Concept of Participative Management, True Ability to Act, and Emerging Concepts of School Sustainability**. These three categories served as the “entry” to categorization, i.e., they represented the main axes of orientation for the other steps of reduction. The third category was called “emerging concepts” because it was not formal or theoretically based definitions, but rather the concepts from each one, prepared solely by intuition itself, guided by the shared sense of those participants. Although they emerged from what arose as convergent among the excerpts of greatest emphasis in the material generated by the interviews with the participants, the connection was maintained among the three categories and the three specific objectives of the thesis at issue.

The first highlighted the activity of participative management in relation to development of sustainable projects and generated the category “concept of participative management”. What was common in the material generated was that, every time the participants were questioned regarding this issue, they referred to their perceptions about what they came to perceive as participative management by the way changes began to occur from these projects.

The second category dealt with application of resources received via PDDE in schools that adopted participative management, which resulted in the category “true ability to act”. In this case, the idea was to investigate how effective management activity was upon obtaining such conditions, i.e., upon being considered for resources from PDDE-Sustainable Schools.

Finally, in the third objective, it was understood that to identify the qualitative indicators that showed the contribution of participative management, it would be necessary to listen for concrete realizations of the socio-environmental projects. At that time, the participants were aligned in verbalizing their understanding in regard to the concept of “school sustainability”. In elaboration of this unspoken concept or upon expressing their perception of what they understood by “school

sustainability”, each one indicated the benefits of this successful interaction in the school. This way of expressing thought, with spontaneous articulation of the two themes – participative management and an increase in projects directed to socio-environmental education – was what concentrated the richness of details to access the way of responding to the research problem.

Categorization proceeded with **composition of cores of meaning**, with intensification of the process of reduction. With use of “paradox”, an effort was made to categorize in “small, ever more inclusive units” to visualize the **indicators** of successful management of the federal government resources on behalf of environmental sustainability in the school. The way of translating and expressing the cores of meaning was by means of central words (BARDIN, 2011), which were transformed in indicators called **socio-environmental indicators in schools with participative management**, as a final result of the categorization process.

In the last step, **object (re)constitution** was elaborated, understood as a new reading of socio-environmental sustainability in the school, this time based on a different perspective: the perspective that emerged from the union between the constituted theories and the view of those participants. The prefix “re” means that an object already existing in the science of school management was once more constituted from a new point of reference. This reference point was now founded on the empirical reality of the four schools that effectively carried out socio-environmental sustainability projects. The way of expressing the result of this step of the categorization process was by means of elaborating a response to the question that motivated the study. This response was considered to draw the theory closer to the foundation of the data since it explains the relationship between participative management and sustainable development in the context of public funding of school projects. However, we must not lose sight of the fact that this theorization of the reality of the study was based on the data generated in that reality by means of the investigation carried out.

Data classified as categories

The data for the categories were generated by taking expressions from the interviews. In **composition of cores of meaning in central words**, reduction intensified. The way to find them consisted of reducing the categories to shorter words or expressions with a less descriptive nature. This was characterized as a “transition” procedure since, in spite of evolving from the *in verbatim* description to an abstraction process, terms used by the participants and non-literal terms were still mixed, according to the interpretation attributed by the researcher. The significant expressions were grouped by segment and category to integrate the responses of the participants of the four schools, which enabled the formation of **cores of meaning** (BARDIN, 2011) (Table 1).

Table 1 Composition of the central words by segment and category

SEGMENT	CENTRAL WORDS		
	Concept of Participative Management	True Ability to Act	Emerging concepts of School Sustainability
Students	Mixing everybody	Trips and excursions	Only for me isn't worth anything
Teachers	Everybody has an influence	Class in the landfill	Better education, better citizens
Coordinators	Everybody is heard	Participation in regional conferences	Change in the whole community
Principals	Everybody can speak up	Workshops with the municipal authorities	Feeling of belonging

Source: Prepared by the author.

Category 1 – Concept of Participative Management

As observed in Table 1, the core of meaning “everybody” was chosen as an axis that connected the four segments. It was understood that the core of meaning that emerged was something that led to the idea of totality, of joining, and of full unity, which, if it does not translate that reality with the same intensity, at least it is established as a latent collective desire. This desire, if identified, recognized, and expressly verbalized *by* and *among* the group, can be transmuted into a goal and, gradually, become a joint challenge that “everybody” in those schools will seek to overcome as a common endeavor. It is noteworthy that in the responses of the participants that generated Category 1, each segment added its “natural partner”, i.e., that party that seems to be most directly related to their common living space. In other words, the student mentioned

the family or parents; the teacher and the coordinator mentioned the community; and the principal mentioned the partnerships.

Category 2: True Ability to Act

The axis of connection among the four segments emerged as the idea of using and acting in spaces outside the school. According to the words of Category 2, the common verbalization that was abstracted as common to all of them was the activities that each segment performed in contact with the medium, which raises a concern, or at least a preference, for closeness to the broader environment. This leads to the deduction that the meaning/sense attributed to the true activity in this possible route to a change of mentality is in the relations that we establish with the medium, life together in community, and in the interaction of learning that transcends the walls of the school to benefit the other in a more inclusive way. It can thus be inferred that the view of each segment regarding the true ability to act evolved in the sense of drawing near the concept of environmental sustainability; that is, it is possible to perceive a correlation between theory and practice.

In the reports of the interviews, a concern was observed for improving the space in which all live together and in promoting community participation. This was perceptible through the focus of the study, directed toward understanding sustainability as those actions aiming at supplying present needs without compromising the future of coming generations. Movements were observed in the sense of making adequate use of spaces and developing care for the environment, as well as expressing ideas of a “view toward the future” and of including the other, even if these notions were not present in a conscious or explicit way.

Category 3: Emerging Concepts of School Sustainability

What emerged in this category was a view of the whole, such that it corroborates the two previous categories. The discourse of the four segments, according to the core of meaning it brought about, converged in the sense of transcending one’s own needs and looking beyond oneself. There was a movement in the direction of the other and of space, a predisposition of extension of a benefit or of that which is good for oneself, of including the other and the surroundings as beneficiaries of the good actions. Other words that are variants, whose meaning/sense does not break the link with the common idea, were mentioned: life together, preservation, change, rational use. And the keyword that appeared in the utterances of the segments was “the environment”.

The reduction process that began in a more intense way beginning with central words was developed to saturation, a limit established not only by repetition but also by the proportion in which the meaning/sense attributed to the category envisaged the idea to be condensed and transmitted. The indicators that follow represented the synthesis of the categories mentioned above.

Indicators of socio-environmental sustainability in schools of participative management

The meaning of each indicator combines elements that respond to the issue that inspired the study. These elements both maintain a strict relationship with the field of environmental sustainability in the school context and attribute a sense and meaning to the interaction of this field with participative management. Figure 1 illustrates in what way they interconnect and act in that environment.

Figure 1 Hologram *Participative management for socio-environmental sustainability in the school*



BELONGING, Qualification of partnerships, Decentralization of management, Learning together, Involvement with surroundings, Living together harmoniously, Small initiatives, big changes, Mutual benefit, Access to materials, Joining efforts

Belonging: the catalyzing indicator

The feeling of **belonging** can be conceived of as an “absent-presence” in current society. It indicates a profile of society marked by exclusion and by ever greater distancing among people. This distancing can also extend to a distancing from oneself, which leads to a search for identity when faced with the feeling that there is a void in what should be common and in what binds. This is a requirement that integrates school sustainability and participative management, to the extent that those agents that provide impetus to this reality evoke the feeling of belonging as something that fills the empty space of that which is common and binding. According to Sousa (2010, p. 34), the feeling of belonging,

[...] is translated in a visible way, in senses and motivations diverse from those of its roots, sustaining a search for participation in groups, tribes, and communities that allow grounding and generate identity and a social reference, even though in different territories [...].

The idea of belonging includes and drives energy and sustains the other indicators since it is a benefit that comes from inside “oneself” and goes to others and the environment. It is linked to the other indicators and was understood as a generating and articulating element of a school with participative management that promotes sustainable development.

The category in question was understood as a **catalyzing indicator** by indicating the potential of articulating sustainability and participative management in a full process of interaction. According to Sousa (2010, p. 34), the search for belonging in the sense of finding the common-articulator in itself brings about the “traditional breaking down of borders between the local and the global, the public and the private, the common and the individual, and the community and the society, generating both hybridisms and new forms of tension and conflict”. Furthermore, it promotes participation by valuing the collective through affective connections and historical connections established with the community.

Joining efforts: a consequence of looking beyond oneself

This indicator expressed the ability of that school community to look beyond itself and observe that there are people around it, i.e., observe the medium and the environment in which more than one lives. To observe the other, it is necessary to observe oneself, to feel that one belongs in a community, and develop the trust to believe that from unity it is possible to achieve that which seemed to be an insurmountable obstacle.

Qualification of partnerships: a requirement for success in school projects

From joining efforts comes **qualification of partnership**. This indicator requires and leads to intense articulation in the search for better results for the school projects created. Articulation does not exist without participative management. Often, according to aspects that arose in different reports of the participants, not even participative management would be successful without partnerships. Brazilian reality confirms this inference, actually even based on the affirmation that the financial resources/funding made available, when they exist, are not fully sufficient to generate sustainable results. Qualification of partnerships takes up the idea of breaking down borders that are present in the belonging indicator, as well as acceptance of the idea of hybridism, i.e., the idea of mixture, of interpenetration of different processes to achieve a common goal.

Decentralization of management: opening to sustainability

Seeking partnerships requires and implies **decentralization of management**. Therefore, the participative management theme in the sphere of school environmental sustainability is of utmost importance, a decisive question so that changes occur. But the concept of decentralization has the weight of its meaning, which is intensified and materialized to the extent that the segments incorporate the concept of community, especially in respect to participative school management and sustainable actions. To decentralize consists, above all, of opening and creating flexibility. It is a movement in the direction of the other to be receptive to his/her ideas and proposals, which are generally different from those of the one that leads. As a rule, those that occupy positions at the base are those who observe the gaps, precisely because they suffer the impact of the (competent or incompetent) actions of the manager.

Learning together

What is reported as a result of the previous indicators was named **learning together**, which is reported as a result of the previous indicators to the extent that belonging led to the joining of efforts and to the search for partnerships as a consequence of decentralization. It can be denominated as a natural consequence of participative management that generates actions of school socio-environmental sustainability, since integration of people of a community and learning from/with the other promote consistent results, with characteristics of becoming sustainable.

Involvement with surroundings

An element visibly present in the four schools was reflected as a collective concern for the other, shared by all. In a response from the principle of School C, not only the existence of learning together, but also mobilization in the direction of interacting with the surroundings was clear; a predisposition toward productive and affective life together. From this, fruitful results for the school and surrounding community are noted.

We called the representative of the community, community leaders, association, and from that, we began a series of actions. And the first action we thought of in a collective way was a mobilization in the community, identifying there the points where there was, for example, garbage. (Principle – School C).

Living together harmoniously: proximity factor

The perception of harmony emerged in a natural order of posteriority from the idea of *involvement with the surroundings*. Living together presupposes with others and in harmony; no one deliberately involves himself or herself with that which brings about conflict or lack of harmony. The first tendency is to remove or to isolate that which leads to bad instead of good. Distancing and isolation were not elements present in those four communities. In spite of the imperfections of any relationship of this scale – school and community – harmony appeared to be quite present. The words of Tajfel (1982) well illustrate this question when the author argues that people construct and are constructed in a symbiotic manner by their surroundings. Higuchi (2002) corroborates that when he agrees that a person is constituted most of the time in a complex relational dynamic with the surroundings where he/she lives with other people.

Small initiatives – big changes, mutual benefit, and access to materials

The last three indicators – *small initiatives-big changes*, *mutual benefit*, and *access to materials* do not require a more detailed definition since they seem to reflect a material dimension in a more explicit manner. These three indicators lead to an idea of results, of consequences, or of implications from the action of the first seven.

Final considerations

Highlighting aspects and presenting elements that indicate the impacts of funding projects of socio-environmental sustainability in the four schools studied through the concepts of sustainable development applied to the school context is an important contribution of the study carried out. A consensus view, based on the flagrant educational reality the country is currently going through, is that it is necessary to consider difficulty of financial resources as a major obstacle to improving the quality of teaching in the most fundamental sense, i.e., of providing conditions for the school to be able to fulfill its academic role. Extending this effort to development of projects that go beyond the walls of the classroom to observe the environment seems, at first sight, a Herculean demand given the difficulties faced by management, teaching staff, and even the students themselves.

An exogenous factor of some higher proportion is necessary to encourage efforts in this direction, simply so that the school is able to experience the benefits for the learning process of the students themselves. The factor that appeared in order to be able to perform this study was funding. It is understood that the absence of a minimum of material resources can lead the school to stagnation, caused by a sense of impotence in the face of economic problems that seem, a priori, not to have a solution. Thus, the aim of this study was to show the side of the school that has that need apparently fulfilled and the way it reacts toward fulfilling its responsibility in regard to socio-environmental issues.

The way of investigating this problem was the formulation of indicators to show how this funding of projects had an impact. However, there was no concern, due to the very nature of the study, of establishing quantitative indicators. This was an essentially qualitative study, and all the instruments for generating data were directed to this approach. The indicators were generated from a process of categorization that took into account the discourse of the participants, their perceptions

regarding the changes experienced in the school in the period agreed upon at the time of the interview. There was no concern in quantitatively objectifying the subjectivity of these perceptions because it was understood that they express the point of view of each participant. All the participants are active and living in that reality and so it is suitable for them to verbalize the impacts made by the projects. Value was placed on the convergences that emerged from these utterances. Thus, based on theoretical examination of the bibliography and examination of the elements that emerged from the practical dimension of the study performed in the field, the **socio-environmental sustainability indicators in schools of participative management** were generated.

An examination of the conceptual field that surrounds questions of socio-environmental sustainability seemed to develop a gradual process of awareness-raising in the sense of "looking outside at what surrounds you". The very understanding that sustainable actions essentially aim in the direction of future generations already constituted "getting outside oneself" and looking around. The idea that this brought about was that a horizon opened before that community. As was explained in the definition of the indicators, a new concept of living together was constructed. This kind of living together "has import", in other words, there is an understanding that what is around me is an intrinsic part of me, insofar as it is part of my space of living together, even if this is not in terms of physical or geographical proximity. There is a different luster when life encompasses the presence of the other, and the sense of reality constructed by all reinforces the certainty that they are not alone or isolated in the world, but rather that responsibility and commitment to other people and to the environment ensure the security of all, but also of each one.

A kind of web of cooperation was formed, spun by the members of the school, members of the community, and partners that developed skills to provide services. It was also created by the government that provided public policies to the Municipality of Sobral and made resources available to carry out these projects.

For effective promotion of socio-environmental sustainability, the school must remain in touch with the needs of its community, as well as create projects that carry benefits beyond its walls, as mentioned in the reports presented here. The new social tendency impels us to a reality in which the walls of the school no longer satisfy the pressing needs of our students. The school is in need of renewal, adaptation, and reconfiguration. It is evident that environmental education should be part of the school curriculum, not as an elective subject, but as a necessary and primary concern.

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