## Social control in the Brazilian school environment: strengthening is necessary

Controle social no ambiente escolar brasileiro: fortalecer é necessário

Control social en el ambiente escolar brasileño: es necesario fortalecerlo

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## **Abstract**

The School Food Council (CAE) is a deliberative, supervisory, and advisory body of the Brazilian National School Feeding Program (PNAE). This study was aimed at proposing a model to strengthen CAE performance. The research was carried out with CAE members of a municipality in the central region of Rio Grande do Sul State, south Brazil. The study consisted of the following phases: diagnosis to make a profile of the Council members; participation in the meetings and reading of the minutes; interventions (training, interview with school principals, elaboration of the assessment instrument, school visits, and development and validation of software); and evaluation of the interventions. Despite the low participation of the counsellors, strengthening of CAE in this municipality was achieved; all actions carried out along the work were useful to help and guide the members to have a good, correct and effective performance within the Council and during school visits and assessments. Based on the current study, further work addressing this issue in municipalities of different sizes is suggested so that more specific comparison and analysis of CAE performance in Brazil are possible.

**Keywords:** School feeding; Social control; Food and nutrition security; Training; PNAE.

## Resumo

O Conselho de Alimentação Escolar (CAE) é um órgão deliberativo, fiscalizador e consultivo do Programa Nacional de Alimentação Escolar (PNAE). Este estudo teve como objetivo propor um modelo para fortalecer a atuação do CAE. A pesquisa foi realizada com membros CAE de um município da região central do Estado do Rio Grande do Sul, sul do Brasil. O estudo consistiu nas seguintes fases: diagnóstico para traçar o perfil dos membros do Conselho; participação nas reuniões e leitura das atas; intervenções (treinamento, entrevista com diretores de escola, elaboração do instrumento de avaliação, visitas escolares e desenvolvimento e validação de software); e avaliação das intervenções. Apesar da baixa participação dos conselheiros, conseguiu-se o fortalecimento da CAE neste município; todas as ações realizadas ao longo do trabalho foram úteis para ajudar e orientar os membros a terem um bom, correto e efetivo desempenho dentro do Conselho e nas visitas e avaliações escolares. Com base no estudo atual, sugerem-se novos trabalhos abordando essa questão em municípios de diferentes portes para que seja possível uma comparação e análise mais específica do desempenho dos CAEs no Brasil.

Palavras-chave: Alimentação escolar; Controle social; Segurança alimentar e nutricional; Capacitação; PNAE.

#### Resumen

El Consejo de Alimentación Escolar (CAE) es un órgano deliberativo, fiscalizador y consultivo del Programa Nacional de Alimentación Escolar (PNAE). Este estudio tuvo como objetivo proponer un modelo para fortalecer el desempeño del CAE. La investigación fue realizada con miembros del CAE de un municipio de la región central del Estado de Rio Grande do Sul, sur de Brasil. El estudio constó de las siguientes fases: diagnóstico para perfilar a los miembros del Consejo; participación en reuniones y lectura de actas; intervenciones (capacitación, entrevista con directores de escuela, desarrollo del instrumento de evaluación, visitas escolares y desarrollo y validación de software); y evaluación de las intervenciones. A pesar de la baja participación de regidores, el CAE se fortaleció en este municipio; todas las acciones realizadas durante el trabajo sirvieron para ayudar y orientar a los integrantes a tener un buen, correcto y eficaz desempeño dentro del Consejo y en las visitas y evaluaciones escolares. Con base en el estudio actual, se sugieren estudios adicionales que aborden este tema en municipios de diferentes tamaños para que sea posible una comparación y un análisis más específicos del desempeño de los CAE en Brasil.

Palabras clave: Alimentación escolar; Control social; Seguridad alimentaria y nutricional; Capacitación; PNAE.

## 1. Introduction

The Brazilian National School Feeding Program (PNAE) was implemented in Brazil in 1955. It constitutes the oldest public policy in the country and is considered one of the world's greatest and most comprehensive feeding programs regarding the universal care of students and the guarantee of the Human Right to Adequate and Healthy Food (Brazil, 2009).

School feeding is a right of all students, being considered one of the strategies of Food and Nutrition Security (FNS). The public power must adopt the required policies and actions to promote and ensure FNS for all (Brazil, 1988; Scarparo *et al.*, 2018).

The National Fund for the Development of Education (FNDE) has established the School Feeding Council (CAE) to control the quality of the meals received at schools. This is a deliberative, supervisory, and advisory body instituted at municipal and state levels, including the Federal District (Brasília, the capital of the country). It was founded to monitor the use of the financial resources transferred from FNDE to the executing entities as well as to guarantee the quality of school feeding (Brazil, 2009).

CAE is an important body of social control. According to the current legislation, it must be composed of seven full members, who are representative of: Executive power (1); teachers, students (aged older than 18 years) and educational workers (2); student's parents (2); and another segment of the organized civil society (2). One alternate member is appointed for every full member. It may thus be observed that the process of selection of CAE composition is determinant to guarantee the effective exercise of social control. In other words, the potentialities of this and other similar structures are conditioned to the public sector's capacity to promote and support its functioning (Sidaner *et al.*, 2012). Nonetheless, poor operation of CAEs is a reality; counsellors have inappropriate working conditions and cannot perform accordingly due to inadequate infrastructure and lack of knowledge about relevant issues regarding social control of school feeding, such as legislation and bylaws (De Souza *et al.*, 2019).

In this context, the general situation of CAEs in Brazil is worrying; it is composed of volunteer members who most often have other occupations and cannot fully dedicate to the attributions of the Council (Nascimento, 2015). A study developed in 2017 made the diagnosis of CAE performance in a municipality of the central region of Rio Grande do Sul, Brazil, and indicated the need for interventions to strengthen it (Bueno *et al.*, 2019). The lack of an active and strong CAE may generate deleterious outcomes on school feeding, since one of its roles is to supervise quality and quantity of foods sent to schools. Inefficient performance of CAE may lead to multiple problems involving school feeding: low quality food being received, delays and failures in sending the money passed on to the municipalities, and the inadequate use of the resources. This is all bound to negatively affect students' learning and health. So, CAE is pivotal for PNAE's success and, to have that, training and development of instruments that make CAE's supervisory work easier are of utmost importance. In view of the above, the present study aimed to propose a model to enhance the performance of CAE.

## 2. Methodology

This study employed an action research methodology according to Thiollent (2018). The survey was undertaken with CAE counsellors of a municipality in the central region of Rio Grande do Sul State, Brazil, from March to December 2018. The following steps make up the strategies developed to strengthen the operation of this Council: diagnosis to make a profile of its members; participation in the meetings and reading of the minutes; interventions (training sessions, interviews with school principals, production of the assessment instrument, school visits, and development and validation of software); and evaluation of the interventions.

All members of the Council were invited to in-person interviews to have their profiles determined and the main responsibilities and difficulties of CAE pointed out. A questionnaire with 18 open and closed questions, which was adapted from the one applied by Bueno *et al.* (2019), was used for data collection; each member answered it individually.

Two training sessions were held according to the need and demand of CAE members; place and workload were adjusted to their availability. The researchers used the answers given in the questionnaire as a guide to conduct the discussions: those issues indicated as relevant and essential to the good progress of school inspections, evaluations and visits were approached. Therefore, doubts were clarified, controversial aspects about school feeding were discussed, and solutions to support and encourage the counsellors were sought. Participative methodologies were adopted; based on real-life situations which the participants had gone through, the proposal consisted of creating educational practices which allow experience and learning in problematized concrete situations, grounded in the methodological assumptions of Da Silva (2000).

A questionnaire with six open and closed questions referring to school feeding was sent to the principals of the 74 municipal schools. It was developed in *Google Forms* and sent via e-mail, aiming to address and eliminate CAE members' doubts regarding the operation of school feeding in such institutions.

An assessment instrument was made to be applied during school visits. Development of this instrument was based on a questionnaire of the School Feeding and Nutrition Collaborative Centre (CECANE). After confection, the tool was sent to CECANE so that it could be evaluated, and the appropriate considerations and contributions could be made (see Supplementary data). School visits were conducted with the aim of observing, analysing, and evaluating the routine of each institution with respect to school feeding.

A software was developed with the main goal of speeding CAE's evaluation and supervisory process and was registered under the tradename *SOMAR: Escolas* (in English, SOMAR: Schools). This technological production was made through modelling the functional and structural aspects of the software based on the *Feature Driven Development* (FDD), which is an agile software development methodology (Simonyan et al., 2017). After practical demonstration, CAE members evaluated its operationality and applicability.

Subsequently, the evaluator filled an assessment questionnaire based on the 'The Seven Dimensions of Evaluation' criteria: Contemplation and Innovation; Benefit; Adequacy; Utility; Accessibility; Equity; and Transfer. The score of the dimensions was determined by the 5-point Likert attitude scale, in which the subject expresses the level of agreement or disagreement regarding the questions in the survey: 1) strongly disagree, 2) partially disagree, 3) neither agree nor disagree, 4) partially agree, and 5) fully agree (Likert, 1932; Stedefeldt *et al.*, 2013).

Lastly, to assess the work, a questionnaire was prepared for the participating counsellors to indicate their level of satisfaction with the interventions performed during the project.

Data were tabulated through simple descriptive statistics, and the results were presented as percentage and mean. Content analysis was used to assess qualitative data (Minayo, 2007).

This study was conducted according to the guidelines laid down in the Declaration of Helsinki and all procedures involving research study participants were approved by the Research Ethics Committee at *Universidade Franciscana*. It is part

of an umbrella Project named SOMAR, which was carried out in the public schools of the municipality. It was approved by the Research Ethics Committee at *Universidade Franciscana* and is registered under Protocol nº 691.673. All the participants signed the Informed Consent Form.

## 3. Results and Discussion

Profile of the members of the School Feeding Council: Three full and five alternate members of CAE took part in the survey; eight represents 57% of the total number of counsellors, which is a low participation adherence. Most of the participants were females (75%) and worked with education (62.5%) (e.g., schoolteachers and principals) (Table 1). This is a relevant fact, since such professionals have a daily contact with the reality of food distribution to the target audience of PNAE and with the difficulties faced by school feeding in the municipality (Bueno *et al.*, 2019).

**Table 1 -** Characteristics of members (n=8) of the School Feeding Council of a municipality in the central region of Rio Grande do Sul State, Brazil, 2018.

Variables		n	%
Sex	Male	2	25
	Female	6	75
Professional Occupation	Pharmacy clerk	1	12.5
	Teacher	5	62.5
	Parliamentary Assistant	1	12.5
	Housewife	1	12.5
Position	Full	3	37.5
	Alternate	5	62.5
Segment	Students' parents	2	25
	Civil Society	1	12.5
	School	4	50
	Executive	1	12.5
First term	No	3	37.5
	Yes	5	62.5
Joined the Council through	Election	2	25
-	Indication	6	75

Source: Researchers (2022).

The fact that most of the counsellors belonged to the female gender is in keeping with a previous investigation (Luchmann & Almeida, 2010); the authors analysed the profile of the members of the Councils which manage public policies and verified a highly significant presence of women in comparison with traditional institutions of political representation, such as the Executive and Legislative Powers. Similar findings were observed by Wendhausen and Caponi (2002) and Querino *et al.* (2012); according to these researchers, the greater presence of women in the social control bodies may be linked to their alleged skills with social issues, ethics based on solidarity and sensitivity, and their availability to politically perform in such niche.

Considering the professional occupation of the interviewees, 62.5% held a teaching position. As for the segment they belonged to, 50% were school representatives. Most of the counsellors, 62.5%, was in their first term in office; 25% were elected through meeting/assembly, and 75% were indicated (Table 1). In agreement with such findings, Wendhausen *et al.* (2006) observed that 55% of the counsellors were in their first term, and 68% were indicated and not elected. By contrast, another assessment found that only 23.5% of the counsellors were in their first term in office (Balestrin & Sudbrack, 2019).

Table 2 presents data characterizing the work conditions of the school feeding counsellors. All counsellors who participated in this study reported knowing about their attributions within the Council and claimed that monthly meetings were conducted at the city hall; 75% stated being aware of their rights as counsellors (Table 2). A previous report verified a mean

frequency of occurrence for the meetings of seven per year (Belik & Chaim, 2009). Although it is not officially established in the norms of the program, the number of meetings which should be held annually at CAE is normally suggested by FNDE. Meetings should occur monthly or at least every two months (Bandeira *et al.*, 2013) so that all the attributions and competences of the Council can be approached. A sole annual meeting to analyse accountability of PNAE and issue the concluding report of CAE is not enough for the Council to properly exercise its duties (Belik & Chaim, 2009).

**Table 2 -** Work conditions of School Feeding Counsellors (n=8) of a municipality in the central region of Rio Grande do Sul State, Brazil, 2018.

Variables		n	%
Knowledge about assignments	Yes	8	100
	No	0	0
Knowledge about rights	Yes	6	75
	No	2	25
Place where meetings are held	City hall	8	100
	Schools	0	0
	Other entities	0	0
Frequency of meetings	Weekly	0	0
	Biweekly	0	0
	Monthly	8	100
Knowledge about other members	Yes	3	37.5
	No	5	62.5
Use of assessment instruments during school visits	Yes	5	62.5
	No	3	37.5
Use of private means to make visits	Yes	0	0
	No	8	100

Source: Researchers (2022).

Only 37.5% of the counsellors knew all Council members; the same number of participants reported not using the assessment tools to perform the school visits. As regards the use of private means to make visits, all respondents stated depending on the transport provided by the city hall (Table 2). As said by Santos *et al.* (2011), counsellors who rely on proper work infrastructure have more chances of maintaining the Council-related activities.

Meetings: CAE held seven meetings throughout the period of this survey, which amounts to 70% of the estimated times (ten). Average of participation of the full and alternate members in these meetings was 2.8; 1.8 referred to the full members and 1 to the alternate ones. Such results indicate a greater participation of the full members as well as a low general adherence since the Council was composed of 14 members. Along the ten months of this study, it was also seen that the total number of counsellors was never present at a single meeting. Such information indicates that the municipality undergoes a disturbing situation about care with school feeding, since CAE performs a major role within PNAE.

Low participation adherence of CAE members also occurs in other CAEs throughout Brazil. A study reported that in the municipality of Caiçara, in Rio Grande do Sul State, meetings were held every two months in average, with the presence of at least two thirds of the full counsellors (Balestrin & Sudbrack, 2019). Another survey carried out in 10 municipalities in the State of Sergipe showed that none of these places conducted monthly Council meetings. Far from that, the average of meetings per year was 4.5, and two municipalities did not hold a single meeting per semester. Considering all the meetings held in all municipalities, the average number of counsellors present in the sessions was 7.5, which is an excellent result (Nascimento, 2010).

Monthly meetings occurred in the CAE assessed herein, but participation was low. Thus, despite the higher frequency of occurrence, the great weakness detected was the low participation of the members, whether full or alternate. CAE

performance has been incipient; due to the way the counsellors do their activities, it is not feasible to detect a problem and adopt the necessary measures to solve it without having losses to the program execution. The result of that is, most certainly, a poor service to beneficiary students, who, most of the times, depend on PNAE (Nascimento, 2010).

The study conducted in the municipality of Caiçara (Rio Grande do Sul State) also indicated that the reasons for the weak performance of these Councils are, for example, lack of technical training and precarious infrastructure (Balestrin & Sudbrack, 2019). Likewise, in the CAE being studied here, the counsellors do not have a head office where meetings could be held, and documents and minutes could be stored. Meetings are conducted in the FNS Department at the city hall. Another issue that hampered the performance of this Council was the lack of a vehicle to carry out the visits; according to the legislation, the counsellors may not use their own cars to visit schools.

A literature review made in the United States of America disclosed that school feeding is an important social program in most countries, and that investing in such programs aids in increasing school attendance, cognition, and educational achievement; it also provides a transfer of resources to the families with possible benefits to the agricultural production and development of the local market (Bundy *et al.*, 2012). In Brazil, law no 11.947 (2009) regulates that at least 30% of the amount passed from FNDE to states, municipalities and the Federal District must be used to acquire food items from family farming, thus supporting and strengthening organizations with sustainable initiatives at local and regional levels (Cunha *et al.*, 2017).

Training: The first training session with the participating CAE members was carried out in May 2018; it happened at the city hall in the presence of a Nutritionist of the municipality. Issues related to school feeding were addressed, and the demand to elaborate a questionnaire to be sent to schools arose. The material should contain questions such as "Does the school follow the menu suggested by the Nutritionist of the municipality?", so that the members could gather information and outline a strategy of how to proceed during visits. Only 21% of the members, i.e., three counsellors, participated in this training, which was well below expectation.

In October 2018, a meeting was organized at a local university with the goal of gathering a greater number of counsellors in the second training session. Five members, 2 full and 3 alternate, participated in the event, which corresponds to 36% of the total. The participants cleared their doubts, discussed controversial questions regarding school feeding, and sought support and incentive solutions for the CAE members of the municipality. There was active participation of all counsellors present.

In this perspective, it is essential to invest in training for CAEs throughout Brazil, since the performance of the Council investigated here points to some flaws, thus requiring improvements. A study with the CAEs in Santa Catarina State highlighted that the following aspects should be perfected: unfamiliarity with the content and importance of the internal rules; non-disclosure of the resources spent on the program; low participation in the elaboration of the menu; and a greater periodicity in the supervision of federal resources, but this activity should not be restricted to the reporting period only (Chaves *et al.*, 2013).

The aspects that need improvement in the CAE analysed herein are an effective participation of the full and alternate members in the Council meetings and a greater frequency of school visits. Another aspect which is crucial for a better performance is that conditions for the Council to work are given, such as proper structure, support in the follow-up actions and, most important of all, counsellors' autonomy. The Council will be more active and strengthened once such changes are made and the importance of its work in the municipality is understood.

School principals' interviews: The questionnaire on school feeding elaborated along with CAE members was sent to the 74 schools of the municipal school system; a total of 46 institutions responded it, which represents 62.1%. The municipality where this study was conducted has 19,794 students, 60% of which (11,914) go to such respondent schools. Moreover, of the 74 workers registered for school feeding, 85.1% (63) are in these institutions. The questionnaire included

basic questions, such as the total number of students, and specific ones, related to the operation of the school feeding routine in each school (Table 3). It should be highlighted that most of the principals who responded the questionnaire believed the amount destined to school nutrition was not sufficient to comply with the recommended menu. Almost 60% of the interviewed schools stated not following the menu, and around 74% did not have an exclusive worker for school feeding.

**Table 3** - Questions of the questionnaire on school feeding responded by schools (n=46) of a municipality in the central region of Rio Grande do Sul State, Brazil, 2018.

Questions	% Yes	% No
In your opinion, are the funds given to the school, along with the food items sent by the city hall, enough to comply with the menu?	23.9	76.1
Does the school comply with the menu?	41.3	58.7
Does the school have a refectory?	54.3	45.7
Does the school have an exclusive worker for school feeding?	73.9	26.1
Is the number of workers assigned to school feeding enough?	50	50

Source: Researchers (2022).

Of the 46 schools that answered the questionnaire, 27 did not follow the menu proposed by the city hall; each institution builds strategies to meet the nutritional needs of the students. Non-compliance of menus is not restricted to the municipality focus of this study; Nascimento (2010) pointed to such problem as the predominant failure in ten municipalities of Sergipe State.

When the principals were asked about how much time they spent on organizing school feeding (e.g. food items acquisition, guidance to workers, equipment adequacy, utensils and physical structure, menu adequacies and replacements, among others), 69.1% reported using a regular amount of time, 9.1% answered a very short time, and only 21.8% stated employing a great amount of time; this may hinder the progress of other school-related issues, since principals have multiple attributions, duties and demands. Educational administrators must seek the equilibrium between pedagogical and administrative aspects of school life, with the perception that the former is essential for they interfere directly in the students' qualification process. Nevertheless, the latter aspects must provide the necessary conditions for the pedagogical development (Gomes, 2021).

As for the functions set in contract, 93.2% of the workers involved with nutrition in the assessed schools were permanent employees of the city hall; 4.5% were outsourced employees, and the remaining were volunteers. Half of the workers, 50.9%, had the function registered in contract as a lunch lady/cook. Nonetheless, 47.2% of the workers were registered as general services; this is a worrying fact, since the same people who oversaw cleaning toilets and classrooms also worked as lunch ladies, and this impairs proper and healthy food preparation.

In this perspective, the principals' responses about what was done to meet the nutritional needs of the students were analysed and the results are shown below; they had previously stated that the amount passed on by the city hall was not sufficient. Based on that and on the analyses of the answers given by each interviewed school, strategies, or indicators as said by Minayo (2001), were set and divided into four categories: Proactive Strategies, Extra Aids, School Resource, and Adaptation with Available Resource (Figure 1).

Figure 1 - Categories within the strategies to meet the nutritional needs.



Within "Proactive Strategies", resources as a vegetable garden and partnerships with Higher Education Institutions arose; in addition, one of the principals suggested setting up a menu along with CAE. In the words of the principal of school A "We would like to rely on the technical support of this Council to set up a menu along with the school community, and that further advance can be made in the proposal we already work on." However, the principal of school B, believes that "we can acquire foodstuffs as well as produce them in the vegetable garden, but we offer lunch and two snacks, and this increases the expenses with school feeding."

In the "Extra Aids" category, the following items were mentioned: raffles and festivities, help from parents of students, money earned by selling risotto and from events, spontaneous donations, sales of products made at school, solidarity gymkhana and partnerships, according to the next records: "Own resources through fundraising with promotions and sales of products made at school." (Principal of School C); and "We receive spontaneous as well as campaign donations. Donations from parents that can contribute. Money earned by selling risotto and from events." (Principal of School D)

The "School Resource" category refers to funds intended for other purposes that were eventually used to fill the school feeding deficit. "We use our own funds." (Principal of School E) and "We always seek to have cash reserves for support." (Principal of School F)

And finally, in the "Adaptation with Available Resource", the principals choose to modify and adapt through an alternative menu with foods available at school, which, according to them, do not cause nutritional deficits. "We make modifications that do not cause nutritional deficits." (Principal of School G) and "We follow the menu in part and choose an alternative one to complement." (Principal of School H)

A 2015 survey conducted in three schools of the public system in Itapetinga, Bahia State, found high indices of changes in the menu (67%); the reason for such practice was related to the lack of ingredients, thus demonstrating failure to execute menu planning (Nascimento, 2015). A study about planning, production, distribution, and adequacy of school feeding also evidenced that the main allegation for the changes made in the executed menus in relation to the proposed ones was the lack of ingredients (Issa *et al.*, 2014); the authors stated that this may suggest a random use of ingredients by food handlers, in disagreement with what was programmed, or failure in logistics planning regarding food supply.

Nascimento (2010) highlights that among the major irregularities are the lack of school food supply, non-compliance of the menu, lack of food stock control and problems with bidding and contracts. This may cause a diversity of serious matters, such as contracts at prices which are higher than those practiced in the market, delivery of products which differ from the ordered ones, and absent provision of school meals.

The assessment instrument: was developed so that the counsellors could quickly and effectively conduct the evaluations at schools, focusing on issues that are important within school feeding. The questions were separated in seven blocks addressing aspects related to: physical structure, equipment, and utensils; personal hygiene of school feeding workers;

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environmental hygiene (kitchen, refectory, and storage room); storage; food preparation and distribution; relationship of the school feeding worker; and place and safety at work. Thirty-eight questions were formulated, and three possible answers were given: Adequate (AD), Inadequate (IN) and Not applicable (NA). When and IN response was given, the description of the inadequacy was required.

The counsellors evaluated the instrument and approved the original version. The CECANE participants, in turn, contributed to the improvement of the assessment list with suggestions such as the following: inclusion of the number of students in each evaluated school; change of the term 'evaluator' to 'counsellor'; inclusion of a question concerning ventilation and lighting in the kitchens in the 'physical structure' block; inclusion of 'partially' as a fourth possible answer; and inclusion of a question about visitors in the 'place and safety at work' block, asking whether they followed the same rules applied to the food handlers with regard to the use of a cap when entering the kitchen.

School visits: When visiting the schools, the counsellors evaluated and inspected the conditions of the foodstuffs and meals offered to students and checked if the institutions followed the menu proposed by the city hall and by the municipal Nutritionist. Furthermore, they observed the conditions of the kitchen, refectory, and storage room. CAE visited four municipal schools along the follow-up period of this study. For that, the counsellors used a printed version of the assessment instrument; afterwards, the answers were transferred to the software so that the percentage of adequacy/inadequacy and the classification of the schools could be generated. Once each evaluation was finalized, counsellors as well as principals had access to a PDF file containing the obtained results.

The software: The elaborated software has interfaces to request access to the system as evaluator; register schools; check the schools already registered; evaluate schools' adequacy; check the evaluations already made; and continue evaluations in progress. This technology was designed so that the counsellors' evaluation and inspection could be performed in a faster, more efficient, and specific manner. As well as the software developed by Rocha *et al.* (2013) to plan and evaluate the school meals in Portugal, the present tool provides diagnosis and monitoring of the school unit and suggests intervention priorities.

A questionnaire was applied to CAE members after they handled and tested the software to evaluate it (Table 4); the answers indicated that the instrument met the expectations and needs of the group. Contemplation, Benefit and Equality were the only criteria which did not reach the 5.0 mean.

**Table 4 -** Means of the scores given by School Feeding Counsellors (n=8) to 'The Seven Dimensions of Evaluation' of the Software *SOMAR: Escolas* in a municipality in the central region of Rio Grande do Sul, Brazil, 2018.

Question	Mean		
Innovation: SOMAR: Escolas brings a new way to verify Best Practices in School Feeding with			
novel characteristics as agility, presentation, and easiness.			
<b>Innovation:</b> <i>SOMAR: Escolas</i> stands out from other instruments designed for this purpose.			
Contemplation: SOMAR: Escolas has the necessary information to evaluate Best Practices in School			
Feeding in its operation area.			
<b>Benefit:</b> SOMAR: Escolas facilitates and justifies decision making by the appliers when the subject is			
Best Practices in School Feeding.			
Benefit: SOMAR: Escolas by evaluating and answering this questionnaire, you felt close to the	4.7		
process of elaboration of the assessment list.			
Adequacy: SOMAR: Escolas respects the professional experience of the appliers with information			
regarding Best Practices in School Feeding.			
Adequacy: SOMAR: Escolas meets your needs as an instrument to evaluate the conditions of Best			
Practices in School Feeding.			
Utility: SOMAR: Escolas contributes to solve problems of school feeding counselors when			
evaluating Best Practices in School Feeding.			
<b>Accessibility:</b> SOMAR: Escolas has clear questions which are easy to understand and interpret.			
Accessibility: SOMAR: Escolas is easily integrated into your professional practice.			
Equity: SOMAR: Escolas may be applied in all different school scenarios.			
Transfer: SOMAR: Escolas has the potential to trigger positive changes in the practices related to	5.0		
Best Practices in School Feeding.			
Transfer: SOMAR: Escolas has an adequate cost-benefit (low cost and high benefit) to the appliers	5.0		
in the Food Services.			

Source: Researchers (2022).

The questionnaire applied to finalize the work showed that full satisfaction has been achieved through the strengthening interventions, since no counsellor considered the actions unsatisfactory or indifferent (Table 5).

**Table 5 -** Results of the satisfaction questionnaire applied to members (n=8) of the School Feeding Council (CAE) regarding the interventions carried out while developing the present project in a municipality in the central region of Rio Grande do Sul, Brazil, 2018.

Interventions	Did not participate	Very satisfied	Satisfied	Indifferent	Unsatisfied	Very unsatisfied
Training sessions	2 (25)	5 (62.5)	1 (12.5)	0(0.0)	0 (0.0)	0(0.0)
Participation in the meetings	0 (0.0)	6 (75)	2 (25)	0 (0.0)	0 (0.0)	0 (0.0)
Questionnaire applied to school principals/delivery of the report to CAE	1 (12.5)	6 (75)	1 (12.5)	0 (0.0)	0 (0.0)	0 (0.0)
Elaboration of Assessment Instrument for CAE to apply at schools	2 (25)	6 (75)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Development of a software to aid in schools' evaluation	1 (12.5)	7 (87.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

Source: Researchers (2022).

## 4. Conclusion

Participation in CAE's meetings was important to draw a profile and make a diagnosis of its members. Moreover, the training sessions were quite relevant; issues suggested by the participants were approached and, despite the low adherence and participation of the members, doubts were cleared and important subjects regarding school feeding were discussed.

Elaboration and application of the questionnaire sent to the municipal school principals were extremely relevant to learn about the reality of school feeding in each school. Based on that and on the answers given in this questionnaire, CAE may analyse and act on specific aspects regarding school feeding along with the schools.

The assessment instrument has the necessary items for an adequate evaluation during CAE school visits. Furthermore, the content is divided into blocks, and this facilitates planning of adequacies and the observation of potentialities and weaknesses of each school.

The software developed as an assessment instrument is a facilitator tool which can aid during school evaluations for being a practical and easy-to-use system that received the approval of all counsellors who tested it. The use of this software is recommended to improve school feeding quality as well as support PNAE. The low participation adherence of the CAE members along this survey hampered the execution of some interventions. Nonetheless, the Council's performance was enhanced, and full satisfaction of the participating counsellors was achieved.

For future work it is expected to register the SOMAR: Escolas tool so that it becomes indispensable. In addition, it is intended to carry out actions for more CAE members to participate in future research, thus highlighting the need for more studies on the subject.

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## References

Balestrin, M., & Sudbrack, E. M. (2019). Gestão democrática e o conselho de alimentação escolar: a realidade do município gaúcho de Caiçara [Democratic management and the school feeding board: the reality of the Caiçara municipality]. *Revista Emancipação*, 19 (1), 1-13. https://doi.org/10.5212/Emancipacao.v.19.0008

Bandeira, L. M., Chagas, C. M. d. S., Gubert, M. B., Toral, N., & Monteiro, R. A. (2013). Análise dos pareceres conclusivos dos conselhos de alimentação escolar sobre a execução do programa nacional de alimentação escolar. *Revista de Nutrição*, 26(3), 343–351. https://doi.org/10.1590/s1415-52732013000300009

Belik, W., & Chaim, N. A. (2009). O programa nacional de alimentação escolar e a gestão municipal: Eficiência administrativa, controle social e desenvolvimento local. *Revista de Nutrição*, 22(5), 595–607. https://doi.org/10.1590/s1415-52732009000500001

Brazil (2009). Lei nº 11.947, de 16 de junho de 2009. Dispõe sobre o atendimento da alimentação escolar e do Programa Dinheiro Direto na Escola aos alunos da educação básica. Brasília, DF.

Brazil (1988). Constituição da República Federativa do Brasil. Diário Oficial da União, Brasília, DF.

Bueno, S. S., Ancette, C. A., Blumke, A. C., & Saccol, A. L. F. (2019). Atuação do conselho de alimentação escolar em um município da região central do estado do Rio Grande do Sul [The action of the school feeding council in a city of Rio Grande do Sul state]. *Disciplinarum Scientia*, 20(1), 75-83. https://periodicos.ufn.edu.br/index.php/disciplinarumS/article/view/2536

Bundy, D. A., Drake, L. J., & Burbano, C. (2012). School food, politics and child health. *Public Health Nutrition*, 16(6), 1012–1019. https://doi.org/10.1017/s1368980012004661

Chaves, L. G., Santana, T. C. M., Gabriel, C. G., & Vasconcelos, F. d. A. G. d. (2013). Reflexões sobre a atuação do nutricionista no programa nacional de alimentação escolar no brasil. *Ciência & Saúde Coletiva*, 18(4), 917–926. https://doi.org/10.1590/s1413-81232013000400003

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Cunha, W. A. d., Freitas, A. F. d., & Salgado, R. J. d. S. F. (2017). Efeitos dos programas governamentais de aquisição de alimentos para a agricultura familiar em espera feliz, MG. Revista De Economia E Sociologia Rural, 55(3), 427–444. https://doi.org/10.1590/1234-56781806-94790550301

 $Da Silva, E. B. \ (2000). \ Educação \ como \ prática \ da \ liberdade. \ \textit{Revista Brasileira de Educação}, \ (14), \ 180-186. \ https://doi.org/10.1590/s1413-24782000000200016$ 

De Souza, A. A., Da Silva, C. A. M., Bezerra, O. M. D. P. A., & Bonomo, E. (2019). Condições de trabalho e atuação de conselheiros de alimentação escolar em municípios de minas gerais e espírito santo. DEMETRA: Alimentação, Nutrição & Saúde, 14(1), 37875. https://doi.org/10.12957/demetra.2019.37875

Gomes, I. T. P. (2021). A importância do gestor escolar na construção do conhecimento. I Semana online científica de educação. CONGRESSE.ME. https://doi.org/10.54265/fzdh8310

Issa, R. C., Moraes, L. F., Francisco, R. R. J., Santos, L. C., Anjos, A. F. V., & Pereira, S. C. L. (2014). Alimentação escolar: planejamento, produção, distribuição e adequação. *Revista Panamericana de Salud Pública*, 35 (2), 96-103.

Likert, R. (1932). A technique for the measurement of attitudes. 22 (140). https://legacy.voteview.com/pdf/Likert\_1932.pdf

Lüchmann, L. H. H., & Almeida, C. C. R. (2010). A representação política das mulheres nos conselhos gestores de políticas públicas. *Revista Katálysis*, 13(1), 86–94. https://doi.org/10.1590/s1414-49802010000100010

Minayo, M. C. S., & Gomes, S. F. D. R. (2007). *Pesquisa social: teoria, método e criatividade* (26a ed.) [Social research: theory, method and creativity]. Vozes. https://cursosextensao.usp.br/pluginfile.php/300166/mod\_resource/content/1/MC2019%20Minayo%20Pesquisa%20Social%20.pdf

Nascimento, J. L. R. (2010). A atuação dos conselhos municipais de alimentação escolar: análise comparativa entre o controle administrativo e o controle público [Monografia de conclusão de curso não publicada]. Universidade Federal de Sergipe.

Nascimento, M. C. P. S. (2015). Alimentação escolar em três escolas públicas no município de Itapetinga – BA: uma contribuição para educação ambiental [Dissertação de mestrado não publicada]. Universidade Estadual do Sudoeste da Bahia.

Querino, R. A., Oliveira, W. A., & Filho, A. C. A. (2012). Encontros entre o estado e a sociedade civil: estudo exploratório dos conselhos e do perfil dos conselheiros de Uberaba/MG [Encounters between the state and civil society: exploratory study of the councils of counselors and profile of Uberaba/MG]. Revista Jurídica Direito & Realidade, 1 (2).

Rocha, A., Afonso, C., Santos, M. C., Morais, C., Franchini, B., & Chilro, R. (2013). System of planning and evaluation of school meals. *Public Health Nutrition*, 17(6), 1264–1270. https://doi.org/10.1017/s1368980013001961

Santos, S. F., Vargas, A. M. D., & Lucas, S. D. (2011). Conselheiros usuários do conselho municipal de saúde de Belo Horizonte: Características sociais e representatividade. Saúde e Sociedade, 20(2), 483–495. https://doi.org/10.1590/s0104-12902011000200019

Scarparo, A. L. S., Baldasso, P. L., Lopes, E. F. d. S., Rockett, F. C., & Venzke, J. G. (2018). Aspectos relevantes na formação de manipuladores de alimentos que atuam na alimentação escolar. *Revista Caderno Pedagógico*, 14(2). https://doi.org/10.22410/issn.1983-0882.v14i2a2017.1563

Sidaner, E., Balaban, D., & Burlandy, L. (2012). The Brazilian school feeding programme: An example of an integrated programme in support of food and nutrition security. *Public Health Nutrition*, 16(6), 989–994. https://doi.org/10.1017/s1368980012005101

Simonyan, V., Chumakov, K., Donaldson, E., Karagiannis, K., Lam, P. V., Dingerdissen, H., & Voskanian, A. (2017). HIVE-heptagon: A sensible variant-calling algorithm with post-alignment quality controls. *Genomics*, 109(3-4), 131–140. https://doi.org/10.1016/j.ygeno.2017.01.002

Stedefeldt, E., Cunha, D. T. d., Silva Júnior, Ê. A., Silva, S. M. d., & Oliveira, A. B. A. d. (2013). Instrumento de avaliação das boas práticas em unidades de alimentação e nutrição escolar: Da concepção à validação. *Ciência & Saúde Coletiva*, 18(4), 947–953. https://doi.org/10.1590/s1413-81232013000400006

Thiollent, M. (2018). Metodologia da pesquisa-ação (18a ed.) [Action research methodology]. Cortez.

Wendhausen, Á., & Caponi, S. (2002). O diálogo e a participação em um conselho de saúde em Santa Catarina, Brasil. *Cadernos de Saúde Pública*, 18(6), 1621–1628. https://doi.org/10.1590/s0102-311x2002000600016