

## SCHOOL FEEDING: WHAT CHILDREN'S DRAWINGS REVEAL

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### Abstract

**Objective:** To identify the perceptions of elementary school children of public schools in Guarulhos, São Paulo, relating to school feeding. **Method:** a descriptive type study with a qualitative approach. Eighty-two children of 4 schools selected for engaging in educational activities related to eating and nutrition, drawn from the 63 institutions within the municipality were investigated. The drawing technique was the option selected for data collection. Thirteen drawings - those representing the content expressed by a group of children - were presented. The children's verbalization describing the drawings was recorded and transcribed, along with the content resulting from the analysis of the graphic material, submitted to content analysis. **Results:** According to the children's drawings and their respective verbalization, school feeding was associated: with the foods served and those that satisfied their hunger, providing moments of pleasure; within the setting the highlight was the physical structure in which the meals were served and the organization of the line of those waiting to be served and the personal relationships created, representing eating as a moment of companionship, for talking and socializing with friends. **Final Considerations:** For the children, school feeding acquires a representation that goes beyond the mere act of eating, it is a moment that includes the food but also the school setting and relationships with peers. Thus one of the challenges for the administrators and the entire community involved is how to incorporate these dimensions that permeate the meal-time experience and that were observed to be a fundamental and integrating aspect of the school scene.

**Key words:** school feeding, food and nutrition education, qualitative research, nutrition programs and policies.

### INTRODUCTION

The National Program of School Feeding (O Programa Nacional de Alimentação Escolar - PNAE) implanted in 1955 is the oldest program in the field of Eating and Nutritional Safety (Segurança Alimentar e Nutricional) to recognize the feeding of the pupils of the public school network as a right enshrined in the Constitution. The objective of the program is partly to provide for the nutritional needs of the pupils, thus contributing to their growth and development, as also to the promotion of healthy eating habits<sup>1</sup>.

Despite being considered a universal human right, because it benefits the majority of public schools of fundamental teaching, about one-fifth of these pupils do not customarily eat the school lunch<sup>2</sup>. One should therefore take into consideration the offering of the meals, the quality of the menu, the conditions of its preparation and distribution and its appropriateness to the eating habits culturally established in the region, as also the physical and social setting in which the food is offered<sup>3</sup>.

Beyond the foodstuffs and the food-supply services, the setting and the circumstances in

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which the services are carried out also exercise an influence on the choice of foodstuffs<sup>4</sup>. Eating behavior is complex, being affected by determinants both internal and external to the eater, taking into account eating habits related to the choice of foodstuffs, their preparation and their consumption, properly so called, and other symbolic values.

The act of eating is full of meanings which transcend the simple fact of satisfying hunger and nutritional needs, a characteristic with which the program is frequently associated<sup>5</sup>. It is necessary to understand that feeding choices are linked to objective aspects such as the quantity and quality of the foodstuffs, and income, among others, but also to subjective aspects such as taste, pleasure, social values and relationships.

Eating requires us to develop new insights to capture the meanings and the needs that lie behind the discourse, the intersection between the planes of social processes and subjectivity<sup>6</sup>.

There is a concrete dimension: hunger, the lack of availability of foodstuffs in the children's homes and attention to a nutritional need. There is also a symbolic dimension: school feeding provides a collective space for pleasure, social approximation and cultural construction. There is an existential dimension: eating brings out relationships and community living, the reinvention of the collective dimension which can - or should - be worked on as a pedagogical function.

Thus should be understood the objective of identifying the perceptions of children at the fundamental teaching level regarding school feeding.

## METHODS

The descriptive-type study with a qualitative approach was undertaken in the municipality of Guarulhos in the State of São Paulo, Brazil in municipal public schools. The municipality, at the time of the study, presented a universe of 63 school units of fundamental teaching. Of these 63, 13 schools which had taken part in a study carried out in 2007 and 2008 were selected for the purpose of identifying the development of educational activities within the school context<sup>7</sup>.

Only the children belonging to 4 of the 13 school units drawn, those with educational activities identified in interviews with the directors and pedagogical coordinators, took part in the present study. This identification was validated at a joint seminar held by the research team and local managers. Two classes, either of the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> grades, of each of these four institutions (depending on the grades available in each of them) participated, thus providing a total of 8 groups of children.

The data were collected by means of the drawing technique by which, on the basis of the theme "School Feeding", the children were individually encouraged to do a drawing and later

to describe its meaning. Drawing is a language which children master long before they do writing and which they use for several activities, among them being the communication of ideas, the representation of situations and playing<sup>8</sup>, thus constituting a kind of language of conscious expression, the result of playful creation, a recreation of reality<sup>9</sup>.

Thus two kinds of data permitted analysis: the drawing itself and each child's description of its graphic representation. This interpretation was based on the analysis of the elements represented and the interaction between them. The research of VAN-KOLCK<sup>10</sup> on the interpretation of drawings was taken as the basis for the analysis of the lines and colors.

The interpretation of the colors was incorporated sparingly into the analysis as the children did not always have sufficient time to color their drawings or dispose of the colors which they might have wished to use. The totality of the production of the child was observed, the production being considered in the light of what was to be expected of a child of its specific age group<sup>11</sup>, but also in the light of what children of the same age group and in the same group had produced.

Thus, if a child's drawing presented indications of a lack of autonomy, for example, one proceeded to a comparison with other drawings produced by the same group to judge whether that indication could better be interpreted as a question of that child, that group, or yet whether it could in fact be a faithful representation of concrete difficulties met with in everyday life.

After the pre-analysis, followed by the exploration of the material and the treatment and interpretation of the results, the categorization of the content was undertaken<sup>12,13</sup>.

A coded identity was created for the purpose of ensuring the anonymity of the participants. Thus "C" stood for "child", followed by a number from 1 to 12 (the number of children in each class) and the letter "E" for "escola" (school in Portuguese) followed by an identification number.

The research project, under protocol no. 1518/2006, was approved by the Ethics in Research Committee of the School of Public Health of the University of São Paulo.

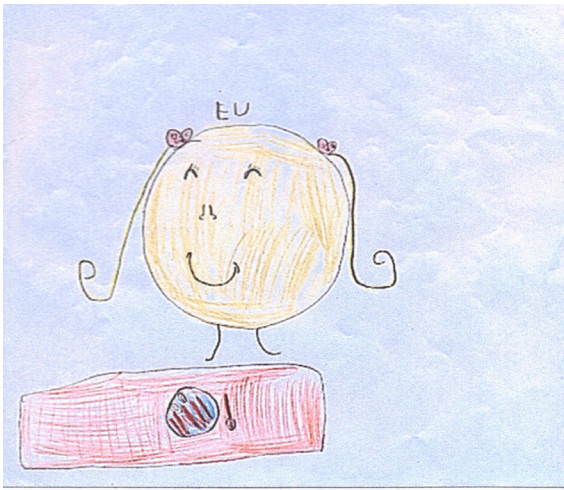
## RESULTS

Of the 83 children belonging to the 8 groups invited, 82 accepted to participate in the study. Of the material produced (82 drawings with their respective descriptions), only 13 will be presented as they represent the content expressed by a group of children, namely: School Feeding associated with Food (Description and Function); School Feeding associated with Setting (Structure and Organization of the line) and School Feeding associated with Relationships (Talking and Playing).

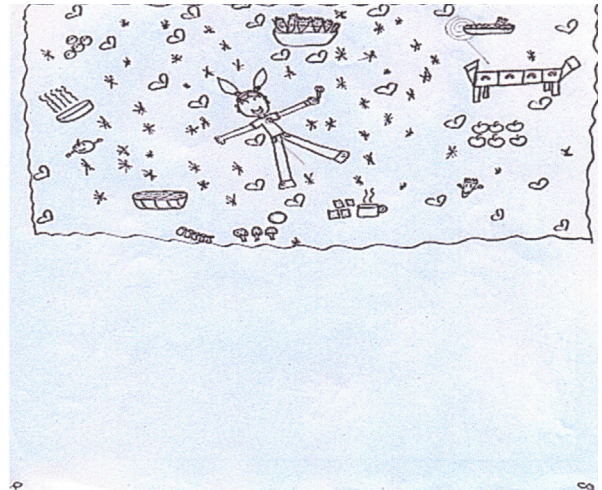
**School Feeding associated with Food:**

The perception of school feeding focused on the food itself, the description of the food that is served, observations related to the function of satisfying hunger and/or of giving pleasure. Frequently, one sees drawings which are positive

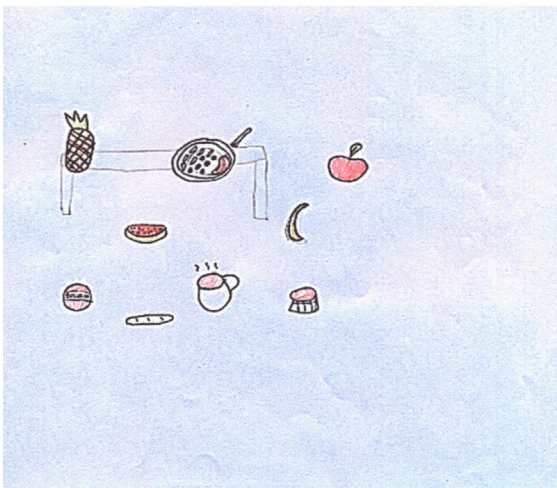
representations, showing happy children, associated with pleasant moments – characteristics which also occur in the children’s speech. Generally speaking, they are drawings which bring out the individual relationship with food, with only one child represented – or none. (Figure 1)



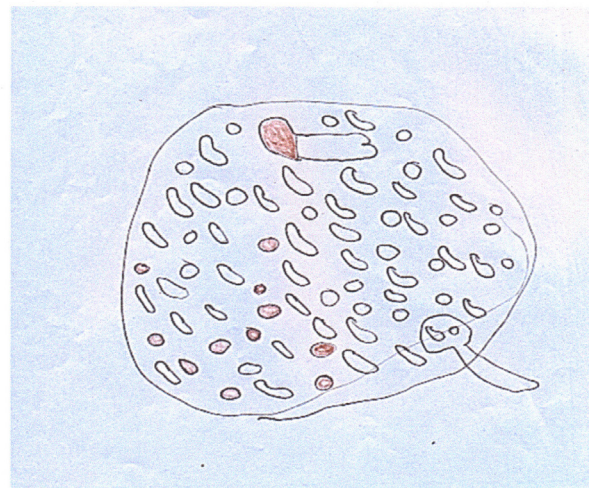
C1-E12



C5-E8



C3-E1



C2-E12

**Figure 1:** Drawings representing the category School Feeding associated with Food

In the first drawing in this category, there is a girl smiling before a plate of food and a spoon (C1-E12). The content and the coloring represent the happiness and the well-being of a child eating at school. The description of the child. "This is me at school lunch. I like school food very much", reinforces the meaning that the lunchtime seems to be a pleasurable experience.

The second drawing (C5-E8) presents the food as a dream. It portrays school food positively. The child describes it saying: "My drawing says that the school lunch is a dream". The drawing occupies the upper half of the sheet, with a rectangle of curved lines (a cloud). Within it there are various hearts, stars and a happy girl with a spoon in her hand, surrounded by plates, carrots, apples and a counter to serve the food. The

drawing focuses on the pleasure of eating and shows great appreciation for the food offered by the school, emphasizing the lunch as a pleasant moment.

The fact of the child’s representing the school lunch as "a dream" also leads one to reflect on the quality and availability of the foodstuffs which she finds outside the school. Her food at home presents a reality and that of the school "a dream".

The drawing C3-E1 (Figure 1) presents the following description: "Here I’ve drawn a pineapple, a plate full of food, an apple, a banana, a watermelon, a biscuit, bread, coffee and cake". That is to say, the moment of eating makes the remembrance of these foodstuffs, which are among those served normally to the children, real.

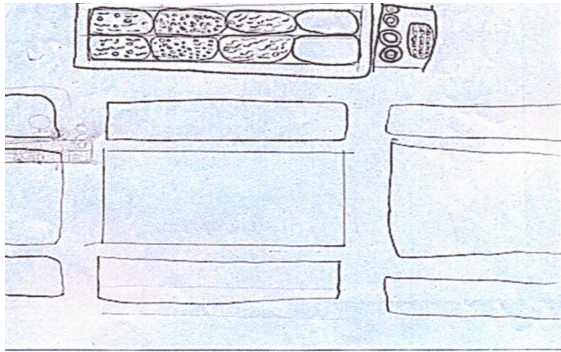
The drawing represents a pleasant and enjoyable moment.

In the same way, in the description of drawing C2-E12, the child refers specifically to the foodstuffs served during the meal. "Here is the plate with rice, beans and chicken and here is the spoon". The drawing is of a plate full of grains and beans and meat (chicken). The child has made an effort to draw what it eats or likes to eat,

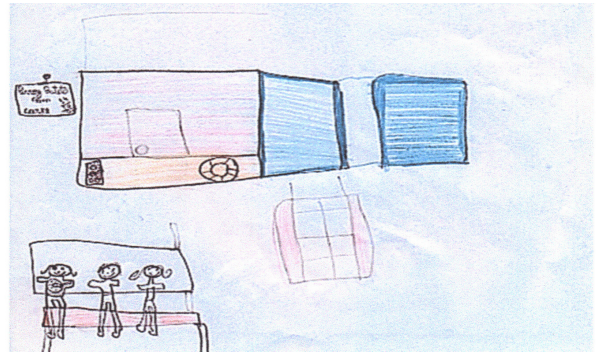
without including itself in the drawing. The food is presented as a serving of food.

**School Feeding associated with the Setting**

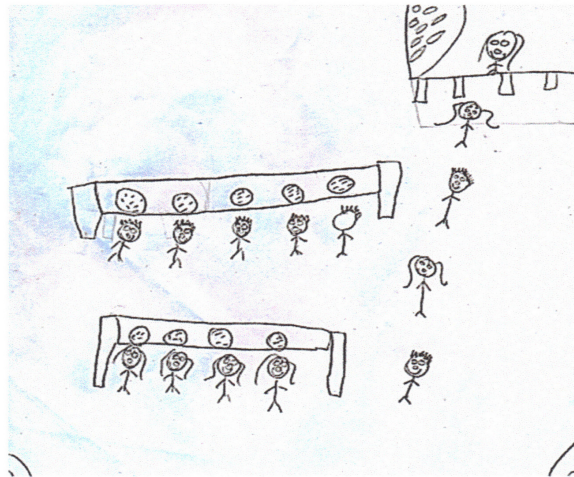
In this category (Figure 2), the children's drawings and descriptions show the structure of the place in which they eat their meals and the organization of the line which they join to be served.



C3-E8



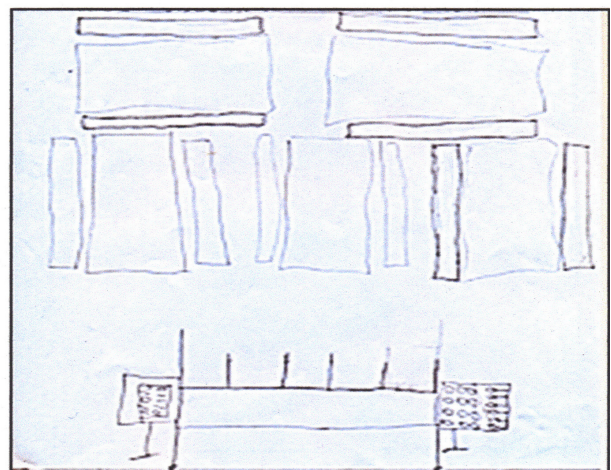
C7-E1



C5-E7



C2-E8



C10-E8

**Figure 2:** Drawings representing the category School Feeding associated with Setting

In the description of drawing C3-E8, the child centers its perception more on the place where the food is eaten and on the utensils used: "Here are the plates, the spoon, this is where

we sit and here is the playground, I am drawing the children..." There is a big counter and empty tables seen from above. In view of the care with which the child depicts the details of the counter,

it attaches great importance to the possibility of the child's serving itself, as also to the surroundings in which this takes place.

The drawing (C7-E1) shows the children sitting at table smiling and a blackboard announcing the day's menu. "My drawing shows where we get our food and the children eating. This is where I write the food which we have each day. There is a blackboard here in the school. This is where we put our plates and cutlery. This is us eating". Although attention is centered on the surroundings, the eating also appears as a pleasant moment when it is possible to be with friends, and the interest in the food is clear. (Figure 2)

The feeding is represented (C5-E7) mainly by the line which forms when the food is served: "I've put the line here, this is the teacher sitting down and this is where auntie serves the food". In the drawing the person responsible is serving the food and there is a line of boys and girls waiting to be served. There are also two tables at which children are eating. (Figure 2)

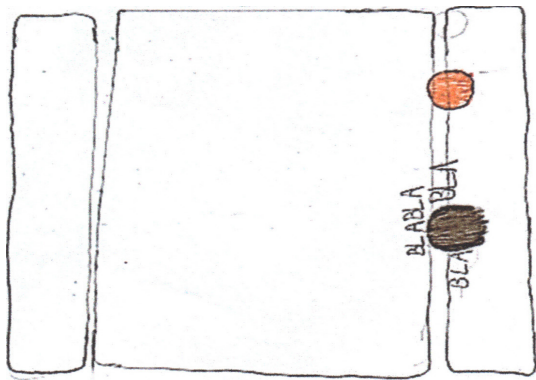
The moment of eating is remembered by the line (C2-E8): "I have drawn the children in the

lunch line". There is a line of children waiting to be served. In the bins on the counter there are beetroot, meat, beans and rice, portraying something that is part of the daily life of these children.

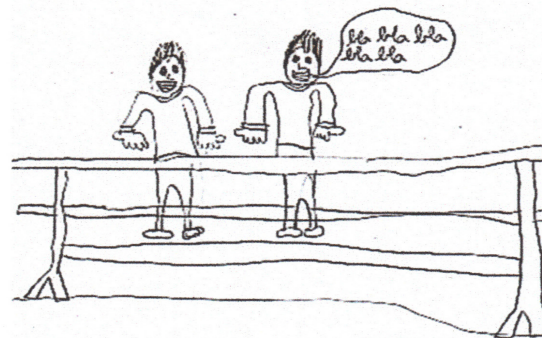
The setting is portrayed in the details of the place where the meal is eaten and includes plates and tables, but generally speaking the food itself is not emphasized. In some of the drawings of this category, the absence of the children themselves is noteworthy. The feeding is represented as a physical structure, with tables and benches. The fact that the children were not included in the drawings nor any other resource used was understood as representing a more distant relationship with the food, as observed in drawing C10-E8.

**School Feeding associated with Personal Relationships**

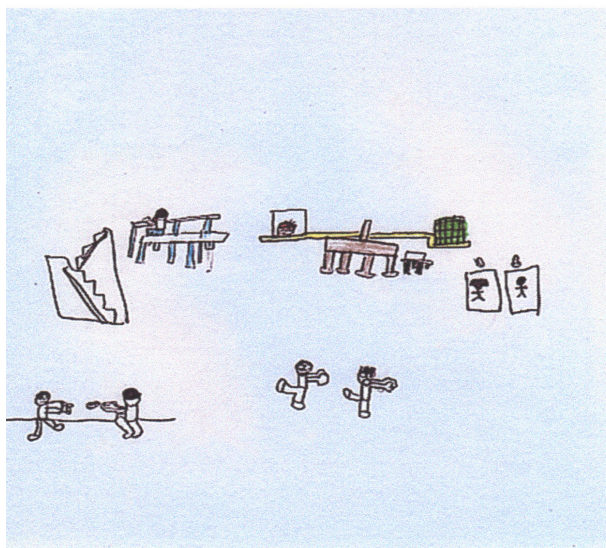
This category represents the eating as a moment of comradeship and of social contact with friends, the representation of the food itself being unusual, as shown in the drawings (Figure 3)



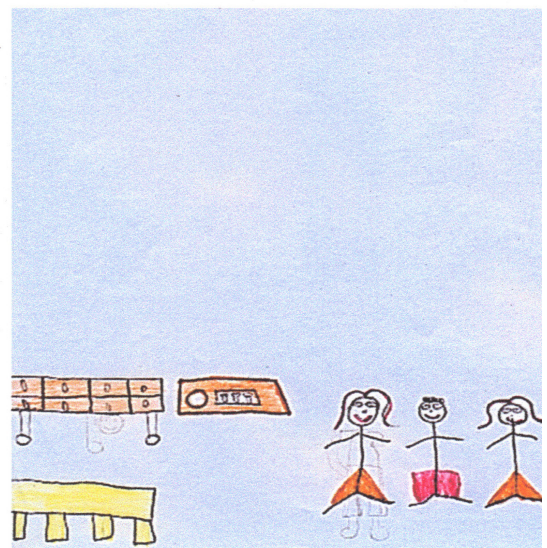
C1-E12



C4-E12



C9-E8



C5-E1

**Figure 3:** Drawings representing the category School Feeding associated with Personal Relationships

The value of companionship is shown in drawing C1-E12, about which the child says: "I'm drawing everybody talking, which is the only thing everyone knows how to do at lunch time" (C1-E12). It is a pencil drawing showing a table seen from above and two colored heads (just the hair) and around one of them are written several "blahs". The moment of eating is presented as a time to chat with schoolmates.

In the comment on the drawing C4-E12, the child sees the feeding as providing a moment for talking: "I've drawn Peter and I talking". It is a pencil drawing showing a table, a bench, two boys smiling and one of them with a balloon full of "blahs". Lunchtime is a time to talk, no food being portrayed.

In the same way, drawing C9-E8 portrays several children eating with others playing or going to the bathroom. The feeding is presented as a social moment, though in terms of play: "I've drawn one boy eating and two friends of mine playing ball. Two boys are playing tag. Here is the bathroom. An apple. This is where we get the food. And this is shut, it's a kind of grating, a grating." This presents a period in which it is possible to eat, but the emphasis is on play, the eating being seen as a more individual and solitary act than playing. The school setting seems enjoyable. (Figure 3)

In drawing C5-E1, school feeding is associated with play; there is a bench, a table and three children who are playing. It shows the lunch as a pleasurable moment in which it is possible to be with friends and mainly to play: "I've drawn children playing in the playground. This is the table and the place where the food is kept".

## DISCUSSION

In view of the descriptions and drawings which show the moment of School Feeding associated with Foodstuffs, the biological vision of feeding as a source of nutrients seemed to be irrelevant. The food is presented as a dream, a moment of eating, of pleasure, almost in opposition to the directives of the PNAE of offering food for the purpose of supplying the basic needs of the organism, favoring growth and healthy development<sup>1</sup>.

This feeling of pleasure at eating and satisfying hunger is in agreement with the content of other studies which describe the food as a means of pleasure and fulfillment of desire<sup>14</sup>. This conception of eating as nourishment has been being questioned by scholars who have come to analyze and identify feeding, the act of eating, as a cultural and social phenomenon, thus going beyond the sense of nourishment for survival's sake<sup>15</sup>.

The act of eating must be seen as part of people's daily routine and also as an agreeable act, which was perceived by this category and which was associated with pleasure. What awoke the feeling portrayed and the reason for eating's

being seen as "a dream" seems to be linked to the access to food and to the possibility of eating. The children's attention is focused on the food and all that this represents for them, in both affective and cultural terms.

Feeding is determined by multiple factors. Eating practices and behavior reflect the interaction of biological, social, cultural and psychological factors as well as the conditions of the setting<sup>14-16</sup>. A holistic attitude to eating is essential in dealing with the challenge of motivating people to adopt healthy eating habits<sup>17</sup>.

As for the drawings in the category School Feeding associated with Setting, it is interesting to emphasize the children's remembrance of the other school actors involved in the moment of eating. This backs up the information given by other studies which points to the meal-servers and teachers as important in the school setting, as they act directly in the process of learning and the development of conduct, among these being the training in healthy eating habits<sup>18</sup>.

As regards the system used for the distribution of the foodstuffs during the study period, the municipal schools were undergoing a process of transition from a centralized model, in which the child receives the prepared plate, to that of self-service whereby the child was given the opportunity to help itself. This child's school, i.e. that of the author of the drawing, still used the centralized distribution system, that is to say, it was a novelty for the child, seeing that it reminded her of the moment when the food was still served. This new model of distribution, to be adopted by the schools in Guarulhos, is positive in that it permits the children greater autonomy, encourages healthy eating habits and provides for the integration of other school activities by means of the creation of spaces for the construction of knowledge on health and nutrition<sup>19</sup>.

It is to be observed that the feeding is seen as the moment of the line, of organization, associated with the process of serving oneself. The food itself is simply outlined and is not emphasized, whether in the drawing or in the text. The line is characterized as an important element in the organization, the best use of time and the development and interaction with colleagues<sup>20,21</sup>.

The question of the details of the structure and the organization of the lines were still more evident, strongly representing the moment of school feeding, due to the new self-service system which had just been implanted and made available to the children. This system appeared in many of the drawings and was emphasized in the productions; the possibility of the choice of foods thus offered also being highlighted by some of the children. This brings out the importance, to the children, of the setting and of the structure in which the meal is served, and not just of the foodstuffs and dishes which are served there<sup>22</sup>.

In the drawings in which the children perceive the School Feeding associated with

Personal Relationships, the feeding is linked to the moment of eating; however, the aspect of socialization, in which it is possible to talk to and play with colleagues, is much more evident. Eating at school is not then seen to have biological satisfaction as its main purpose, but rather the enjoyment of companionship with colleagues.

The theme "feeding" is almost always associated with the quantity of proteins, carbohydrates and vitamins which are necessary for the individual's organism. However, rather than being limited to its physiological importance to man, eating is a cultural act which involves rituals, emotions and memories and is essential to his constitution<sup>15</sup>.

Eating is involved in the most diverse meanings, from the person's cultural ambit to his personal experiences. It is round the table that confraternities are consecrated, cultural values transmitted, family roots recalled and affective relationships reinforced<sup>14</sup>. And the moment of eating for these children is a part of this climate, in which, beyond a person's feeding himself it is possible to socialize and relate freely to colleagues, which often does not occur in the classroom.

It is perceived that the fact of being accompanied during the meals influences the act of eating positively, independently of age group, as ascertained in a study of university students<sup>23</sup>. According to ZUIN & ZUIN<sup>15</sup>, people, beyond eating for nourishment, have the need to relate to others and it is for this reason that, since remote ages, they have organized themselves, both culturally and socially, to enjoy communion.

Thus is that, in research with children of 9 to 11 years of age in both public and private schools, it has been perceived that beyond the right to study and eat at school, the space should be recognized as a place for play and companionship, fulfilling "the right to attend school to study, eat, play and make friends"<sup>24</sup>. Just as has been observed in this study.

So that these rights should materialize it is important to integrate the point of view of those who prepare the meal, of the teachers who organize the moment of the meal<sup>25</sup>, into the child's perception of his act of eating at school.

Finally, as we have seen, health is often defined as a result of complex interactions. More than two decades ago, Maurice King reminded us that 'Health is a Sustainable State'<sup>26</sup>, that is something constantly on the move and depending on constant attention, active maintenance and care. In particular, that the achievement of a good quality of public health depends on our ability to make the right choices regarding the environment that determines the current health status of a population, but also to make the right choices and take the appropriate actions to prevent foreseeable threats. How we define the quality of public health at any given time must be compatible with future generations enjoying health define in an equivalent way. Public health practitioners must also integrate sustainability in the definition of public health<sup>27, 28</sup>.

This research project has contextualized the understanding of pupils of public schools at the fundamental teaching level of a particular municipality as regards school feeding. It is, however, possible that the results obtained by this study or closely similar findings should also pertain in other places. The low acceptance of school meals observed in some studies may be attributable to other factors such as lack of knowledge of what the pupils think, hope for or how they regard this feeding. Hardly ever is the child consulted as to what he would like to eat at school and this is why the food offered is that which is adequate to the children's taste and age - from the managers' point of view. Just as happens with the preparation of the menus, the setting and the actions taken regarding feeding are elaborated, developed and defined in accord with the conception the adults concerned have regarding the children.

Thus, by virtue of what has been observed in the drawings and descriptions of the children, it is believed that, to achieve greater adhesion to the program and acceptance of the food served, beyond considering the factors already taken into account by the program, the three aspects which were indicated by the group studied in this project as fundamental and integral to the feeding scene in the schools, should be incorporated into the program or reinforced. Feeding involves a set of characteristics which go beyond the offer of a nutritionally adequate meal, corresponding to the tastes of and part of the local feeding culture. For the children, it means pleasure, satisfying hunger, having food they enjoy in a setting with adequate structures and utensils and being able to talk to and play with colleagues.

In face of the small number of studies which deal with school feeding from the point of view of the children involved, the relevance of this study is clear as it can provide elements for more effective actions and initiatives on the part of the school feeding program and perhaps also for other policies, with a view to improving its adequacy to the needs of those who are benefited by it.

This study thus ascertained that the children belonging to the fundamental teaching of the public schools in Guarulhos, State of São Paulo, Brazil, perceive school feeding under the three aspects of foodstuffs, setting and social relationships. For the children, in common with what other studies have shown, eating with a view to the promotion of health, should enlarge its scope by expanding its interfaces with other areas. School feeding was perceived as providing a moment of pleasure during which the children eat to satisfy their hunger and in which it is also possible to socialize, play and chat, all within an appropriate setting. That is to say that in the conception of these children, school feeding involves a set of aspects: the food offered, the setting in which the eating takes place and the possible relationships established with colleagues at that moment.

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