

PRINCIPLES AND APPLICATIONS OF THE SYSTEM OF NUTRITION IN SCHOOLS AND TRAINING BASES THE CULTURE OF GASTRONOMIC NUTRITION

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Abstract. *Lately, not only the quantity of food, but especially the quality of food from the gastro industry has become a priority. The materialization of this desire requires knowledge of the cultural and educational aspects of the Romanian and European gastronomic heritage necessary for the integrated food education of the population and especially of the young. The study aims to find solutions to avoid improper nutrition, which is the cause of the diseases of modern civilization, but also to draw conclusions about the importance of training human resources with a gastronomic culture, both general and advanced, necessary for jobs in this field. Applicatively, a series of elements related to early information related to the cultural and educational aspects of gastronomy are described, with details on the way of food and healthy eating of school-age youth.*

Keywords: culture, education, food, gastronomy, schoolchildren

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1. Introduction

Gastronomic Nutrition and Culinary Nutrition are lines of approach in the gastronomic sciences referring to the type of nutrition provided in the line of food production and menus offered in the first case and in the line of making medical culinary preparations and restorative diets in the second case [14]. Therefore, nutrition and in general **gastronomic nutrition** together with some medical connotations specific to culinary nutrition [20] is considered as the science and practice of healthy cooking, which is the result of an interdisciplinary approach to nutrition, ranging from nutrition and dietetics to culinary art and gastronomic sciences. Education in this field improves the ability of learners to integrate all this knowledge in such a way as to allow them to face a healthy and enjoyable menu [7]. **The concept of gastronomic nutrition** therefore includes manufacturing and prevention on the engineering line, and on the medical

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direction the concept is used to define more frequently the education of medical personnel and medical students [14,18].

When we talk about education in gastronomic nutrition, we are undoubtedly moving into the field of interprofessional education for healthy food and gourmet food, education that is defined by the World Health Organization (WHO, 2010), when two or more professions enable effective collaboration resulting in the improvement health, especially when it is related to better food [30] and the acquisition of culinary skills characteristic *de facto* of gastronomic sciences [1, 2, 26].

Cultural aspects in gastronomic food will be able to be a powerful tool for gastronome & gourmet engineers, for chefs and other food staff, but also for consumers [8,14]. Unfortunately, there is little information about the usefulness of culinary nutrition education for chefs or students of gastronomic sciences, with some recent exceptions [14]. Information about the relationship between culinary nutrition and food science offers great perspectives, especially in the food education of students.

- **The stage of knowledge of the problem**

Without going into details, we show that the idea of "gastronomy" over time makes its understanding and actuality appropriate, as well as the need for education along the lines of healthy food culture. A short summary highlights the mentioned [32]: *Etymologically*, it is the art of regulating the stomach (from the Greek gastro: stomach and nomia: what is allocated in division, use, custom, law) [Le Robert, Historical dictionary of the French language]. *The FIRST MENTION* of the word dates back to the 4th century BC: the Greek **Arkhestratos** wrote a culinary treatise, "Gastronomy", unfortunately lost, of which only indirect allusive evidence remains. *THE FIRST ISOLATED ATTESTION* of the term dates from 1683. In the Encyclopedia of Diderot and d'Alembert there is no article "Gastronomy", but in the article "Cuisine" the word is defined without using it. *THE FIRST BOOK* bearing the notion of "gastronomy" in its title belongs to Joseph Berchoux (1801): *Gastronomy or the man from the field to the table*, which is a collection of POEMS in the spirit of Delille, satirical and full of verve. *THE FATHER OF GASTRONOMY* and the true inventor of the word "gastronomy", as well as its comprehensive definition, can be considered **Brillat-Savarin** in the work **Physiology of taste** from 1823: *"Gastronomy is the rational knowledge of everything that concerns man while feeding himself..."*

Currently, there is an "explosion" of works (especially cookbooks), studies and recommendations from various perspectives (often along the lines of maintaining the figure, combating obesity and various diseases related to food and lifestyle) .

We also mention the appearance of a gastronomy treatise that analyzes at a *systemic level* the problems of the **gastro industry sector** through the scientific and technological expression given by the **gastronomic engineering** approach [14].

In all of these there are directly or indirectly concerns related to gastronomy with a predilection target of food for children and teenagers. Approaches to this issue have deepened in research and production, but they have also accelerated on an administrative and political line, for example, considering the report of the World Health Organization (WHO) entitled "Food and nutrition policy in schools". Regarding the healthy feeding of schoolchildren, the evolution that has taken place in recent years has revealed that nutrition, in its broadest sense, has an extraordinary importance in today's society. For example, in the case of Romania, we mention Law no. 294/2004 on the Consumer Code, which stipulates that consumer education is carried out within the educational process, at the level of school subjects. This is because it is known that positively influencing food preferences during childhood contributes to the establishment of healthy (or not) eating habits throughout life [15].

As OBJECTIVES, the study proposes an analysis with pragmatic effects, both theoretically and applied. As a theoretical objective, it proposes the definition and description of some basic aspects regarding *the concept of food along the gastronomic line*, in order to record an orientational framework necessary for the *development of public policies* in the gastro-industrial field and strategies regarding food in schools based on information on the importance of food for schoolchildren. As a *pragmatic objective*, it aims, through a series of explanations and recommendations related to the issue of FOOD IN SCHOOLS, to highlight the principles and organizational framework of *healthy eating programs* among children and young people, important for preventing the risk of metabolic decompensations, various ailments, the default of obesity, which is talked about so much today.

2. Materials and methods

The present study consists of a documentary analysis carried out by consulting literature reviews, official websites etc., which refers to the analysis of documents containing information about the studied phenomenon, namely gastronomic nutrition in general and its application to school food. The basic methodological concept is related to the strategic synthesis of the food act, expressed through the well-known idea of action "*Farm to Fork Strategy*" (*F2F*), with concrete elements regarding the analysis of *agri-gastronomic networks* adapted to food in schools, using principles of multicriteria analysis, comparisons and statistical processing [9,12]. It calls for a managerial and legal diagnosis with emphasis on the socio-

economic aspects of the components of the integrated food system. The principles, techniques and regulations specific to sustainable development regarding food security are considered, compared on multiple levels. Structural and functional schematic expressions are made as a strategic guide with applications at the level of school.

3. Results and Discussions

Basically, we remind you that the human body needs more than 50 essential nutrients to grow, develop and stay in good health. Therefore, we all eat, but do we also feed ourselves? It will be necessary that through nutritional gastronomy we cook tasty dishes, but also beneficial to health, that is, we avoid foods, bad food and menus devitalized (junk-food) and with extremely high energy densities (caloric bombs) [11].

As principle REMARKS for **the feeding system in schools and the bases of the cultural formation of gastronomic nutrition and gourmet food** we mention the ideas on food balance and food education [6,10,17]:

- BALANCED nutrition in relation to the typology of the consumers' metabolism, on an energy-nutritional line and assumed especially on the line of physical, mental, but also emotional health (such as situations of eating due to hunger, or boredom, sadness, or stress).

- EDUCATION is essential, respectively, the way in which **knowledge intervenes in the feeding process** (individual or collective) and then laying the **cultural foundations in gastronomic nutrition**. It should be noted that in the case of those of school age, information and training is done by age group: preteens and teenagers. This is because, based on the genetic program, there are sensitive periods when the neurons develop, and the weight (from approx. 35 kg doubles), which requires the food to be well managed QUANTITATIVELY (it aims at the growth of the body through cell multiplication) and especially QUALITATIVE (aimed at the development of the organism through cellular differentiation).

From the aforementioned results an opportunity at school level, namely the realization of courses, workshops, actions through projects, various publications, etc., in order to avoid improper nutrition with repercussions towards the causes of modern diseases (especially obesity), or towards starvation, as the case may be. But, beyond knowing how to feed, one should not forget the COMPLEMENTARITY between feeding and lifestyle [5, 12, 22]. In the case of schoolchildren, we are talking about a series of activities that must be well managed, namely without forgetting: shortening the time spent in virtual reality (through modern devices: PC, tablets, TV, mobile phones and others), as well as

going out for daily physical activity, knowing that movement is essential for the development of children and teenagers (!).

In the sense of the mentioned, the analysis of the present study was made on three complementary levels with a transition from theory to practice, namely: (a) Principles of gastronomic nutrition; (b) School nutrition education and (c) Healthy eating programs in schools.

3.1. Principles of gastronomic nutrition

As elements of basic knowledge regarding gastronomic food, we mention the importance of general gastronomic culture, especially in the idea of professional training necessary for the gastro industry sector.

GENERAL GASTRONOMIC CULTURE has the value of strengthening knowledge about how to eat through quality foods and drinks with a sanogenic impact on the body of each consumer, as well as to plant ideas and desires for professional training in the direction of specialization in the gastro-industrial production sector, more chosen also taking into account its development perspective.

PROFESSIONAL TRAINING in the gastro industry sector, with the expected economic effect, imposes a diversity of jobs, both regarding jobs in professional kitchens and system administration positions, based on information and professional training at all levels: high school, post-high school and university (the latter through the complex approach of gastronomic engineering) [3,14,16,19, 23].

To understand **the concept of gastronomic nutrition (gourmet food)**, we consider it appropriate to specify some basic notions, such as for example (see Gastronomy / Description, History & Cuisine Britannica", 2023):

- GASTRONOMY is the study of the relationship between food and culture, the art of preparing and serving rich or delicate and appetizing dishes, the cooking styles of certain regions and the science of good nutrition.
- GASTRONOM = person with good experience in gastronomy.
- GASTRONOMIST = is the one who unites theory and practice in the study of gastronomy.

The observations made highlight the fact that the evolution of gastronomy in the last decades has been extremely laborious, structuring itself a distinct sector of activity in the food process and its academic expression by raising it to the level of engineering sciences, in the field of engineering and management. We refer to the third step of the food act, after agriculture and the food industry, to that of the

gastro industry and, respectively, to its technical-organizational expression through gastronomic engineering [14].

GASTRO INDUSTRY is the distinct production and service sector based on the scientific, technological and managerial principles of gastronomic engineering related to the manufacture of quality food and select drinks (simple or mixed, chosen as flavors and taste in famous brands, also based on the fifth taste - umami), as well as their marketing or serving in specialized public food establishments (restaurants, canteens, guesthouses, coffee bars, etc.).

GASTRONOMIC ENGINEERING is the approach that combines food science with culinary art and gastrotechnologies, based on the philosophy of sensory bioharmony and health through rational, technologically balanced physico-chemical and organoleptic nutrition, preparing food through high-performance, efficient and diversified management for distinct groups or as personalized food.

In this context, in addition to the many types of food, several concepts can be defined as lines of food practice, in short it is about: healthy food, collective food and gourmet food. HEALTHY FOOD has as its main benchmark *qualitative* feeding, based on agro-zootechnics manufacturing products usually from the rural environment, but complementary, also with quality products of urban agriculture, and COLLECTIVE FOOD has as its main benchmark *quantitative* feeding to safeguard urban agglomerations, based on products of the food industry.

What we highlight in the present study is an independent direction in the typology of food, namely complex feeding with gastronomic products and preparations that develop **the concept of gastronomic nutrition or gourmet food.**

GASTRONOMIC NUTRITION (and gourmet food) represents the type of food that harmonizes gastrotechnologies with culinary nutrition, an approach whose main benchmark is tasty, biologically balanced nutrition (energy-nutritive and sanogenic with medical nuances of "culinary nutrition") and socially fair (taking into account of the demographic structure and purchasing power), based on culinary preparations with high added value (dishes and fine and mixed drinks), being products of the gastro-industrial sector and the hospitality industry, intended for public or family consumption in the urban environment, as well as in areas rural mainly through rural tourism and local gastronomic points.

Of interest for the subject of this study, for a better understanding, we consider useful a scheme necessary to synthesize the previously mentioned, thus specifying the place and role of "gastronomic nutrition / gourmet food" (Fig.1).

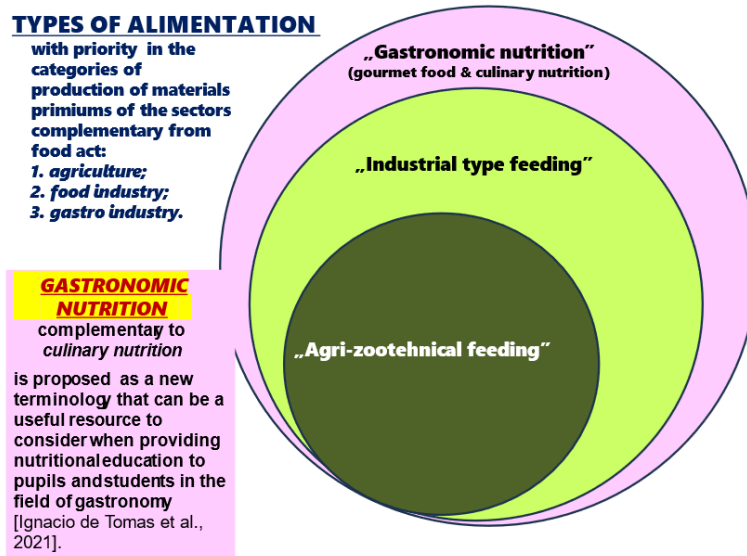


Fig.1. The specifics of food in relation to raw materials and added value progressive in the stages of the eating act, culminating in the gastronomic nutrition (which has the highest added value)

Related to the bases of the cultural formation of gastronomic nutrition, we consider it useful for schoolchildren (and not only) to understand the scientifically in-depth evolution of modern gastronomy and the importance of foods and their functions in the body (Fig. 2).

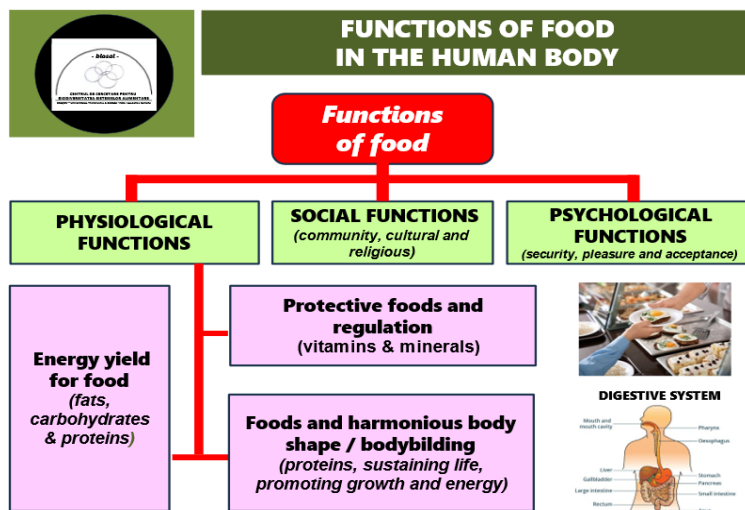


Fig. 2. The typology and flow of food in gastronomic nutrition

With regard to the scientific complexity of the issue addressed, figures 3 and 4 show (schematically), on the one hand, the main procedural aspects of scientific deepening, and on the other, their effect through the impact of food on consumers (implicitly, of course, those of school age).

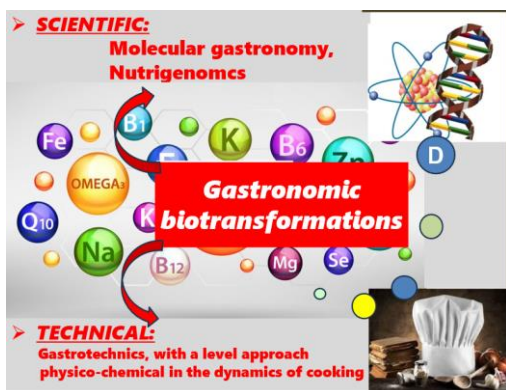


Fig. 3. Gastronomic nutrition supported by scientific and technical elements

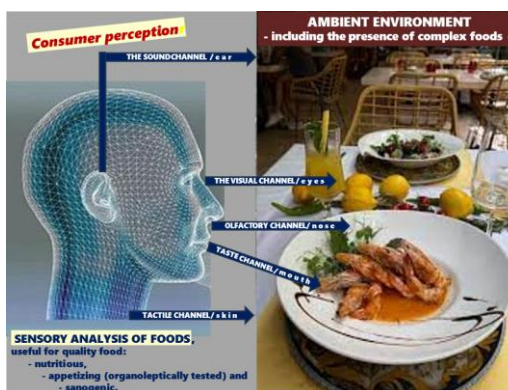


Fig.4. Gastronomic food in analysis sensory with assessment based on consumer perception

The understanding and formation of a cultural base regarding gastronomic nutrition will be more effectively implemented in the mentality of the population if they are known and understood early, respectively from the age of childhood and teenagers.

3.2. School education regarding gastronomic nutrition

Food education among school-aged children is known to be of great topicality, the concern starting with the most important world forums and ending at the level of institutions and families. In this regard, we note that the Food and Agriculture Organization of the United Nations (FAO) and the World Food Program (WFP) have launched a project to improve the menu / diet of school-aged children. Therefore, the inclusion of gastronomy in the school feeding program is the safe alternative for achieving the right to healthy, tasty and waste-free food [4, 13, 25, 27, 31].

Both familiarly and especially institutionally, the promotion of healthy eating requires early education among children and teenagers and the enrichment of nutrition-related skills to give them better access to healthy foods in schools and effectively support the adoption of school policies and strategies application to promote healthy eating.

A way forward is to shorten the food chain "from farm to fork", as for example, building agri-gastronomical networks on a school basis (Fig.5).

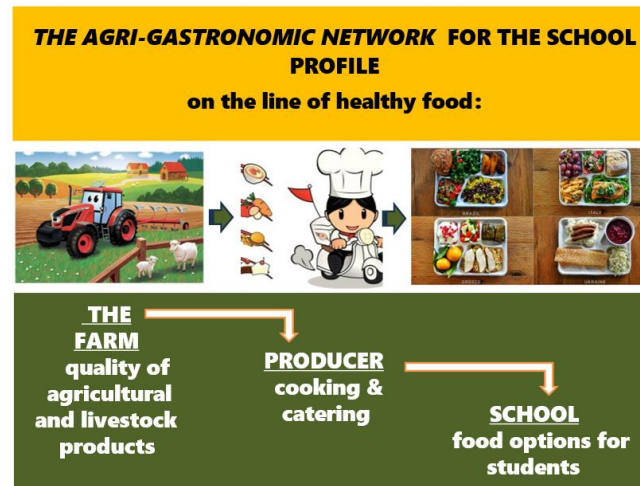


Fig. 5. Food quality in schools based on short, contract networks, between farmers, processors and educational institutions.

Simultaneously with the flow described, EDUCATIONAL ACTIONS ON THE LINE OF GASTRONOMIC NUTRITION CULTURE IN SCHOOLS are needed. Thus, it is opportune to form a partnership with parents and the Advisory Committee for parents at the school to obtain more support for the implementation of initiatives related to GASTRONOMIC NUTRITION, in integrated actions such as:

- To join forces with a neighboring school to facilitate activities and peer-to-peer learning about nutrition education, as well as activities in programs such as: "farm to classroom" or "works of gardener's".
- Collaborate with local experts to provide opportunities for students to learn the cultural significance of foods and/or menus that belong to local traditions.
- Check with local supermarkets to see if a food specialist (teacher, nutritionist, dietitian, professional entrepreneur) is on site for a nutrition-focused guided tour of the location.
- Conducting school trips to a local garden or to a farm or greenhouse in the bordering area of the town, to make a tour necessary to learn about the origin of food and how vegetables are grown or animals are raised on the farm.
- Requesting funding through a grant to have access to educational resources, as a solution to develop the gardens in the school yard (see "Green School" as a UNESCO program etc.).

The mentioned actions must be accompanied by a **food psycho-pedagogy**, aimed at the pleasure of eating among schoolchildren of all ages. This involves a series of principle aspects of *gastronomic nutrition culture* with applications in the food of children (up to 11 years) and teenagers, especially since eating habits are formed from childhood, and parents have the greatest influence on the little ones. For example, in the food strategies applied to avoid eating disorders, restrictions or overeating, snacks used as rewards or punishments for not eating everything from the plate should be followed, but also to take into account children's preferences.

Another recommendation is "feeding gently", as a conscious process without subjective manipulations, paying attention to what the body of each young consumer transmits. As an example: to avoid the "labelling" of food in childhood: "good", "bad", "fat", "healthy", "unhealthy"... Following the studies carried out, the strategic solutions to be applied will have as benchmarks the "pleasure to eat" corroborated with a balanced menu, with the degree of hunger of children and teenagers, with the change of tastes throughout life, with the increased dynamics of food diversity, etc.

- **Action guide in family and school food**

In school food, it starts from the question: *Are all foods allowed?* The answer is of course affirmative, referring to the well-known idea that man is "*omnivor*ous". Therefore, all foods are unconditionally part of a healthy diet. Moreover, food is neither a reward nor a punishment, and banning access to certain foods considered "bad because they make you fat" is counterproductive. Pedagogically, prohibition is NOT the solution, but the power of persuasion.

Scientific understanding and the use of healthy food for children and teenagers is essential for the *formation of the gastronomic nutrition culture*, so that in order to eat healthy, students need the knowledge, skills and attitudes necessary to choose healthy food (including growing it), prepare and enjoy them. A strategy is practically required because healthy eating can be learned.

Therefore, it is important to establish a regular meal schedule and gradually introduce the youngster to each food category. Some can be consumed daily, others more occasionally. As an indicative structure, the share of consumption can be: vegetables 30%; flour 30%; dairy 15%; animal husbandry 15%; lipids & carbohydrates 10%. A *healthy daily menu* provides school-aged children with nutrients and energy through certain balanced food choices. Monotonous food should also be avoided, but food that young people do not like, or if they are not hungry, should also be taken into account.

Better access to healthy food in schools is directly related to requiring *school policies that promote healthy eating*.

3.3. Healthy feeding programs in schools

SCHOOL FEEDING PROGRAMS (SFPs) support an important effort to address food insecurity, improve nutrition education, and ultimately improve health outcomes [4, 29, 32]. Programs are effectively implemented in the context of coherent food policies (Table 1).

Table 1. Framework elements for an adequate school feeding policy

No. crt.	<i>Degree Institution</i>		<i>Responsability for school meals</i>	<i>Managerial milestones</i>
1.	Primary schools	<i>administration</i>	Support should go to municipalities (in proportion to their size), or the public institution designated for food policy	The management of the school fund is usually done by a collective catering company in the central kitchen (on a hot or cold connection line, as appropriate) and delivered to the satellite kitchens
		<i>Funding</i>	The town halls manage the school menu and give advice on the price and composition of the menu	The financial participation of families is established by the City Hall, based on a "family coefficient" established by the local social assistance
2.	Middle and high schools	<i>administration</i>	The responsibility should rest with the county areas or the county as a whole	<p><i>In the desired situation:</i></p> <ul style="list-style-type: none"> - Management in the kitchen of the educational unit <p><i>In the event of a lack of gastro investments:</i></p> <ul style="list-style-type: none"> - Management of a collective catering company in the central kitchen (on a hot or cold connection line, as appropriate) and delivered to the satellite kitchens
		<i>funding</i>	The competent local authority sets the price of the meal in relation to the social fund for canteens	The financial participation of families is established by the City Hall based on the level of the social fund for canteens and the validated social cases

FINANCING – The responsibility regarding the price of school menus should take into account that the rate is lower than the cost of a meal in the family, and in validated social cases the menu is free. As an example of the way of management (in some European countries): the cost is borne 50% by the parents and 50% by the state; exceptions are social cases validated by the state authorities.

In essence, school feeding programs have **4 criteria** for analysis and evaluation [4, 24]: (a) nutritional aspects, (b) cultural aspects, (c) food safety and (d) agro-family participation. Their content is complex (requires a separate study), but the important thing is that they make it possible to fix the general framework of action (Table 2).

Table 2. Aspects of investment order, as variants of the way of organizing feeding in schools

<i>No. crt.</i>	<i>Investment level</i>		<i>Organization</i>
1	Full investment	Kitchen + outbuildings & dining room	- Service by salaried staff
2	Partial investment	Dining room with permanent purpose of feeding	- Service either through salaried staff or through the voluntary partnership of parents
3	Minor temporary fit-out investment	Larger hall (for sports, festivities, etc.) with tables for food use, with arrangement during the meal break for feeding students and, as appropriate, teaching staff	- Organization in partnership with the Parents' Committee, with scheduled participation (arranging tables, distributing food casseroles, gathering and storing tables and sanitizing the hall)
4	No investment	x	- Situation in which the school doctor authorizes packed lunches provided by the family

Regardless of the level of investment, it is necessary to take into account **the comfort of the students** in order to dine in a pleasant environment [21, 28, 31]: - setting up the location; -adapted furniture; - paying attention to noise pollution; - sufficient time for feeding, etc. And last but not least, it is necessary to technically ensure compliance with the rules of hygiene and safety and to ensure in schools sufficient and appropriately equipped sanitary facilities that allow washing, drying of hands and access to drinking water (Table 3).

Table 3. Technical aspects regarding the feeding of children and teenagers

<i>No.</i>	<i>Benchmark actions</i>	<i>Specification</i>
1	Basic recommendation	<p>Nutritional elements:</p> <ul style="list-style-type: none"> - reduces the intake of added simple carbohydrates and lipids, especially saturated fatty acids - better adequacy of the intake of fibres, minerals and vitamins, to achieve a satisfactory general balance of the meals. <p>Student comfort:</p> <ul style="list-style-type: none"> - setting up the location - adapted furniture - avoiding noise pollution - allowing enough time for eating, etc.

2	Food safety	<p><i>According to the EU food policy, the control standards established for:</i></p> <ul style="list-style-type: none"> - hygiene of food and food products - animal health and welfare - plant health - prevention of contamination risks with external substances - display of the 14 main allergens within the INCO regulation (information for consumers)
3	Menus adapted to the nutritional needs of children	<p><i>Principles of balanced nutrition for schoolchildren:</i></p> <ul style="list-style-type: none"> - four or five courses are offered at each lunch or dinner, including a main course, including a side dish and a dairy product - the minimum requirements for the variety of dishes served are respected - adequate portion sizes are provided - appropriate rules for serving water, bread, salt and sauces are defined.
4	Menu composition	<p><i>School managers to consult professionals in gastronomy and/or nutrition, as appropriate:</i></p> <ul style="list-style-type: none"> - the menu should be balanced, varied and divided into portions - customized menus for children with health problems - the collective diet should include at least 20% organic farming products - in the case of packed lunches offered by the family, they will be authorized after consultation with the National Education Doctor attached to the school unit
5	Food allergy	<p>It should be noted that currently concerns about food allergies are in the foreground, especially in the food of children and teenagers.</p>

• **Pragmatic recommendations of the study on feeding in schools**

In relation to the way of feeding and/or school catering, it is more than appropriate to specify the idea that a double requirement must be met: (1) maintaining the nutritional quality of the meals and (2) better informing parents, especially with on food safety issues. In this sense, the basic principles related to food in schools can be stated in summary [4, 11, 17], including school catering for healthy gastronomic nutrition (Table 4).

Table 4. Basic principles regarding school food

<i>Specification</i>	<i>Description</i>
Principle 1.	- Maintaining the nutritional quality of meals in schools
Principle 2.	- Permanent information to parents regarding school feeding management and especially safety grocery shop
Principle 3.	- The diet of school-age children should be balanced, varied and distributed proportionally throughout of the day being directly related to the development of the skills of learning and psychomotor

Principle 4.	- Feeding management in schools should be age-appropriate the students
Principle 5.	- Food in the school should be linked to the price level and assistance for families

As a result of the diagnosis carried out in various educational units, it is recommended that the feeding system in schools be based on a series of PRACTICAL REFERENCES, namely: the creation of a suitable framework; pragmatic elements of managing feeding and snacking as appropriate.

How to create a favorable framework ? - WHEN SERVING THE MEAL, moments of conviviality and sharing with family and/or friends are created that allow communication (avoiding delicate discussions about evaluation, discipline, etc.) and respect for other diners (waiting until everyone is served to eat, during the first and second course) and creating a favorable environment in the school restaurant or in the sports club (• balanced meals with water as a drink / • in the presence of adults / • with enough time to eat / • seated at the table no entertainment (no TV or excessive noise).

How to manage the school food world ? - Entering the school system leads the student to different food experiences depending on the "quality" of the respective institution. Naturally, the educational system should discover new food patterns: the offers of the school restaurant, the habits and tastes of classmates, the lessons of the teachers, the recommendations of the dental hygienist, the health counseling school. These new messages will complement those of his family in shaping his eating behavior.

It should be noted that a diet in which the distribution of the total energy of the school-age children's menu is distributed over the course of the day as follows:

Morning = 20 % / Lunch = 40 % / at 16.00 = 10 % / In the evening = 30 %.
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Indicatively, **the food program in schools**, in case of organization in 8 hours a day, would be advisable:

Class hours = 8.30 – 12.30 / LUNCH BREAK = 12.30 – 13.30 / Class hours = 13.30 – 16.30
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With regard to the content of the **school catering menus**, it is necessary to differentiate by age groups:

- FOR CHILDREN in providing a balanced menu it is essential that all stakeholders can play their part. Sometimes school is a source of stress that, if it becomes chronic, can cause a child to use food as a "doping" or calming agent. That is why the student must eat quietly, especially because until adolescence he is not always able to judge in advance the amounts that will satisfy his hunger,

because they vary from one day, or from one meal to another. The total amounts of food are set over several meals or even over several days. Therefore, the child has the right not to finish his plate, preferably to receive small portions and to be served again only if he asks for it.

- CONCERNING TEENAGERS, it should be noted that during this period of growth, the need for calories increases, but also for proteins, vitamins and minerals, which means both diversification and, above all, nutrition based on animal protein (neural development). But too many teenagers (especially figure-conscious girls) have eating habits that lead to deficiencies, especially in calcium and iron (!)

How to manage snacks ? - The daily menu consists of everything consumed during the day, it being directly related to the energy requirement. A child or teenager can eat very well in the morning and at lunch without needing an intermediate intake, i.e. snacks throughout the day. Food temptations should also be avoided, so in institutions (schools, sports facilities, etc.) exposure to various sources of food (dispensing machines, candy boxes, etc.) should be avoided because it encourages people, especially young people, to eat such foods or snacks without being hungry and too often.

Conclusions

(1). GASTRONOMIC FOOD represents the type of food that has as its main benchmark biologically balanced and socially fair nutrition based on *culinary preparations with high added value*, being products of the gastro-industrial sector and the hospitality industry, intended for public or family food in the urban environment, but also in the areas rural mainly through rural tourism and local gastronomic points.

(2). For the formation of the gastronomic nutrition / gourmet food culture, the scientific understanding and use of healthy food for schoolchildren is essential, accompanied by a food psycho-pedagogy aimed at their enjoyment of eating, simultaneously with the imposition of a learning strategy through which compliance with the principles and rules of gastronomy will de facto support health, longevity and life potential on all levels, with a breakdown of gourmet food actions for children (up to 11 years) and teenagers.

(3). The inclusion of gastronomy in the school feeding program with the aim of raising awareness of the idea of a solid alternative for achieving the right to *healthy, tasty and waste-free food* leads to the realization of short food chains "from farm to fork", for example, the construction of agri-gastronomic networks on a school profile.

(4). **The feeding system in schools** is based on a series of practical guidelines found in public policies, namely: creating a framework conducive to the comfort of students when they eat, coherent elements of managing the process of feeding and taking snacks and, regardless of the level of investments, ensuring and complying with hygiene rules, situations in which the way of feeding in school and/or regarding school catering must fulfill a double requirement: (a) maintaining the nutritional quality of meals and (b) better informing parents, especially on food safety issues.

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