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TASTY GEOGRAPHY: FOOD AS VEHICLES FOR TEACHING AND LEARNING IN BASIC EDUCATION

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Abstract: The research intended to report the use of food as auxiliary didactic-pedagogical materials in the learning of students from 4 (four) classes of the 1st year of the Integrated High School of CEFET – MG (Federal Center of Technological Education of Minas Gerais), Campus I – Belo Horizonte – MG, in the Geography discipline, in the teaching of key concepts of Geology and Geomorphology. Among the many noticeable problems in the teaching of Geography, there is an impasse in the assimilation of some themes that demand a better appreciation of existing structures in nature, sometimes, the resources used are not always efficient for understanding to take place. So, we opted for a didactic-pedagogical vehicle (food) that associated curiosity, literal pleasure with “gustatory”, collective discussion and teaching-learning by analogies.

Keywords: Tasty Geography; teaching of Geology and Geomorphology; foods as didactic-pedagogical resources.

INTRODUCTION

The aforementioned practices are responses-to a constant effort on the part of the authors to streamline activities in the classroom, creating new methodological possibilities that enable the development of knowledge by students in an affective and successful way.

In this regard, each teacher is a dynamic and creative researcher who works daily, diligently, regardless of having essential material resources for them. Always with the hopeful desire to renew their practices and education in a broader sense.

Therefore, the difficulties diagnosed in capturing certain contents, whatever the subject taught, are not insurmountable (neither for the teacher nor for the student), they must be seen as opportunities.

Students will be encouraged to reflectively consider, and the teacher will be called upon

to devise a meaningful and humanized praxis. Initially, for this to happen, there must be solid foundations in the classroom (these are not the only ones): the teacher’s will and “appetite” to reinvent himself, the knowledge he holds of his students, the didactic-pedagogical and specific foundations of the discipline he teaches, added to his experience as an educator and in life.

It is re-signification of the teacher will result in conscious practices/methodologies. In the words of Oliveira (2003), all material existing in nature or manufactured by man, once re-elaborated and with the addition of a pedagogical purpose, can become didactic-pedagogical material. However, it is part of a chain, what has value is not necessarily the product, but the process. The teacher must therefore:

[...]realizing that what unites the different practical activities is the degree of geographic content, as well as the desire of the teacher to promote meaningful activities, is affectivity and joy (both in terms of how to learn and how to teach), as agents within the school, which can contribute to the improvement of relationships in that environment and also as a way of encouraging the teaching-learning process. (OLIVEIRA, 2003, p.42).

Thus, the exchange of these school experiences between peers is extremely important, we put ourselves to the test – leaving our comfort zone, in addition to learning a lot from the experience of the other. This mixer provides for the combination of land surface relief forms (Geomorphology), the geological formation of planet Earth (Geology) for the medium level, benefiting from “fleeting” and tasty materials (in the sense of taste – with food prepared specifically for each class) as pleasurable and “potentially significant” contributions to concrete teaching-learning (AUSUBEL & NOVAK & HANESIAN, 1980, 2000).

DEVELOPMENT

Bringing affection and joy to educational practice seems to be an undoubted and healthy position, unfortunately, they are not found as often in classrooms as they must be. As if the value of a practice resided only in the strict embargo of a certain instruction.

Now, it is not just the brain that is sitting on a desk inside the classroom, but a body, with its postures, tonus, sensations and feelings. Thus: "Attitudes, in relation to their states of well-being, indisposition, need, constitute the infrastructure of their emotions.[...] Emotion is a physiological fact, [...] it is a social behavior. [...] Emotion is a language before language" (WALLON apud ZAZZO, 1968, p. 14).

Zazzo (1968) still defends the merit of Psychology in education, at the forefront:

[...] it allows us to understand that one cannot, in any way, neither erase the master, nor suppress the purely intellectual effort, nor rely only on the spontaneity of the student. The solutions are much more complex, demanding a better adaptation of the child to the school, a better appropriation of the school to the child, without presupposing or operating a metaphysical opposition between nature and the environment, between the individual and society (ZAZZO, 1968, p. 18).

This proposed middle path for education is what we must follow, intending the best for the child/young student, knowing their history, as a priority. Henry Wallon (1968, p. 27) finds that: "the child only knows how to live his childhood. Knowing it belongs to the adult. But what will prevail in this knowledge: the adult's point of view or the child's?"

The abandonment of condescension and omission in education can lead to alterity. In the school field, "the adult's egocentrism can, finally, manifest itself through his conviction that all mental evolution has as an inescapable end his own ways of feeling and thinking, those of his environment and his time" (WALLON,

1968, p. 29). We must change, We go in the opposite direction, thus, the focus is to turn to/by the student, looking at him as a subject.

According to Rubem Alves (2011, p. 8) education must be established with the senses, because, for him, regardless of age: "The body carries two boxes. In his right hand, the hand of dexterity and work, he carries a toolbox. And in his left hand, the hand of his heart, he has a box of toys."

But science – personified by a methodical way of knowing existing in the school, "is,[...]at the same time, a huge toolbox and knowledge of how tools are made". However, "as important as learning to use existing tools[...]– is the art of building new tools. In the toolbox, alongside the existing tools, but in a separate compartment, is the art of thinking" (ALVES, 2011, p. 9-10).

In addition to the student's cognitive actions in educational psychology, by observation, "the study of correlations is, therefore, a method of analysis and verification, but not of reconstruction". The reasons for a flourishing "go beyond the present moment. Each of its stages cannot, therefore, form a closed system, whose manifestations would all depend strictly on one another" (WALLON, 1968, p. 47).

In these individual improvement processes, there is an articulation between the environment and the child/youth, but "the environment cannot be the same at all ages". The environment is "the set of stimulants on which its activity is exercised and regulated. Each stage is at the same time a moment of mental evolution and a type of behavior" (WALLON, 1968, p. 48).

Therefore, in didactic-pedagogical practices, it is necessary to carry out a personalized and untangled planning. In this perspective, with Michel Collot (2018, p. 28): "[...] the emotive function cannot be separated from the referential function, the

state of the soul cannot be separated from the state of things [...]”. The reciprocal between the ‘pleasant impressions’ and the senses in this educational practice are obvious.

“This constitutive relationship between the sense and the sensitive, between a subjective impression and an expressive object, seems to be a common point between emotional experience and aesthetic experience.[...]”. Experts see in this framework a “redefinition of human consciousness in its relationship with the body and the world [...]” (COLLOT, 2018, p. 29).

Alves (2011) illustrates about enjoyment and the senses below: “enjoy, enjoy, enjoy, love a thing for its own sake. [...] it is the order of love – things [...] that are not tools, that are of no use. [...] Because they are not to be used, but to be enjoyed (ALVES, 2011, p. 11-12).

Symbolically, this is the meaning of using food in our practices, rescuing the sensitive and affection in everyday school life, and the simple pleasure of tasting/enjoying with others, in the background, but not least, demystifying what they would or could come Thebe, didactic-pedagogical resources in the classroom.

In view of this, “Life is not justified by utility”, since we are not things. “It is justified by pleasure and joy – inhabitants of the fruition order. [...] The things in the toolbox, [...] are means of life, necessary for survival. Tools don’t give us reasons to live. They only serve as keys to open the toy box” (ALVES, 2011, p. 12).

In order to encourage a value education, the school must teach the student to open the two boxes – the tool box and the heart box; by learning to think he will make the interconnection between both. According to (Gratiot-Alfandéry, 2010, P. 36) on Henri Wallon, integral development does not end “in the adolescence stage, but remains in process throughout the individual’s life. Affectivity

and cognition will be, dialectically, always in movement, alternating in the different learning that the individual will incorporate throughout his life”.

Still by the same author, with Wallon meditated that “affectivity is central in the construction of knowledge and the person. [...]emotional expression is fundamentally social, as it precedes and surpasses cognitive resources” (WALLON apud GRATIOT-CUSTOMS, 2010, p. 37).

Carl Rogers (2019, p. 164) in his pioneering principles, linked to the ideals of Wallon, certifies: “The trainer must use as the main motivation for true learning, the desire of each student to achieve goals that really interest him”. And, again, it signals that the educator:

He must strive to organize as wide a set of teaching resources as possible so that students can use them with ease. He must consider himself as a resource made available to the group. In the face of the reactions of the members of the class, he will have to take into account both those that are of an intellectual order and the affective reactions, making an effort to give these two types of reactions approximately the importance that they have for each individual and for the group (ROGERS, 2019, p. 164).

There are no answers, but indications. When referring to Carl Rogers, Fred Zimring (2010, p. 44) emphasizes that the best facilitator for learning lies in the teacher’s authenticity. “When the facilitator is a real person, entering into a relationship with the student without presenting a mask or facade, the facilitator is much more likely to be effective”.

From this angle, while true in the teacher-student relationship, “she constitutes, for her students, a person, not a person.anonymous embodiment of a curricular requirement or a sterile tube through which knowledge is passed from one generation to another” (ROGERS apud.ZIMRING, 2010, p. 44).

Thus, the authors agree that part of these characteristics are expressed in “Tasty Geography”, in which an environment with respect, dialogue and mutual affection was formed, the students apprehended geographic concepts through the senses/body (visual, gustatory, motor, oral, mental...), and meaningfully.

METHODOLOGY

Among the pedagogical purposes that we aspire to work with Geology/Geomorphology in the teaching of Geography, we highlight: to promote a meaningful learning of geographic concepts and those considered fundamental, in a stimulating and pleasant scenario, among others. To achieve these objectives, we highlight the procedures carried out:

- Distinction of themes to be deepened, objectives to be achieved, planning;
- Preference for food as didactic-pedagogical materials on the part of teachers – for associating several requirements: being unusual and capable of drawing attention and/or motivating students, and therefore, being “potentially significant”; promote humanization in pedagogical practice; being ephemeral and tasty – making an association between savoring food with the chance to taste geographic knowledge;
- Diagnostic evaluation on key geological and geomorphological concepts in each class; based on the results of the diagnostic evaluations, reinforcement of these fundamentals, according to the specificities detected;
- During the apprehension of the worked topics, the students were invited to research freely about unusual landforms – in groups, taking into account: their morphological/aesthetic/geological characteristics, how they were formed and which are the main external agents responsible for their modifications, geographic location of each one of them – at least 3 in each group (one of magmatic rocks, one of metamorphic rocks and another of sedimentary rocks);
- Setting up a virtual wall with images of the chosen landforms, with a base world map and the geographic coordinates of each formation inserted;
- If there is overlapping of images by more than one group, only one of them could have them in its selection; they must be of good quality and have their respective sources;
- Assembly of the virtual wall; availability of the mural, in advance, for access by all students;
- In the same way as the information related to the found landforms (previously analyzed by the teachers);
- Each recipe was individualized for each class, depending on what the groups in that class researched and discussed, choosing one of the relief forms explained in each one of them (Figures 1 and 2);
- The students made analogies between the foods/recipes used for the activities with the real landforms present in nature and the Earth’s geological time;
- Debate in the classroom about what was raised and what was displayed on the virtual wall;
- Exchange of information, creation of hypotheses and conclusions;
- Mediation of activities and debates made by teachers;
- Training exercise in groups after the debate;
- Tasting of the ‘relief forms’ and ‘rocks’



Zhangye Danxia Chinese Park (*)



Rainbow cake'



Figures 1 and 2– Examples of foods used as didactic-pedagogical resources: 'Earthquake' cake, 'Rainbow' cake (Zhangye Danxia Chinese Geological Park), respectively.

Source: Authors' collection.

(*) Source: G1, 2013.



Figures 3 and 4– Examples of foods used as didactic-pedagogical resources: 'Calçada do Gigante' biscuits (Giant's Causeway- Northern Ireland), 'Plate Tectonics' Cake (San Andreas Fault - USA), respectively.

Source: Authors' collection

QUESTION NO. 01
 Activity using food (gum candies, sandwiches, nougat, cakes, et.) correlated with the groups' research and collective mural about Earth's landforms and geological studies.

Establish analogies between the exercises performed in class with the foods, the landforms/geological structures researched and discussed.

a) Sandwich	
b) Stuffed cookie	
c) Gum drops	
d) Effervescent tablet	
e) soft mary	
f) kid's foot, girl's foot or nougat	
g) Cake	

Figure 5– Part of the exercise linking Geomorphology/Geology with food, done in groups.
 Source: Authors' collection.

involved in the educational process (Figures 3 and 4);

- Collective correction of the group exercise (Figure 5);
- Collective evaluation of activities;
- Cleaning the classroom.

CONCLUSIONS

Didactic-pedagogical activities, as a matter of principle, must encourage greater interest on the part of students, allowing them to acquire knowledge in a conscious and feasible manner. The teacher must create an environment conducive to learning for students to learn and interact this learning with their lives.

Communication can be expanded by adding affectivity, playfulness and, from this perspective, the senses - emphasizing vision, taste and their pleasurable fruits. The structuring, outlining and rearrangement of thoughts and concepts, debating issuesgeological/geomorphological in Geography teaching – in Integrated High School, with this consideration, increased and became more consistent.

The ideasthe ones that started were highlighted in the diagnostic evaluations, worked on beforehand in individual and collective research, and enriched in the debates. The students asserted their mastery in relation to the contents, contributing positively to the achievement of the plan. They refined their argumentation skills and showed enthusiasm and involvement with the exercises. The foods functioned, pleasantly, as “potentially significant” materials (AUSUBEL, 2000).

And yes, the students managed to make the analogies between the didactic-pedagogical means employed (food) and the conceptionsgeological/geomorphological characteristics studied in the Geography

discipline. Faced with our daily work as educators, supported by Carl Rogers, we must ask ourselves daily: “– How can I create a psychological climate in which the child feels free to be curious, free to make mistakes, free to learn from the environment, from colleagues, from me, from experience? “ (ROGERS apud ZIMRING, 2020, p. 64).

The unique resources/methodologies used in the practices originated from these questions. They actually supported the acquisition of geographic requirements,most of them, classified as difficult by students and teachers. This time, in the experimentation described, learning became inspiring and fun, and not less real, on the contrary.

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