

## **GEOGRAPHIC LITERACY: A RETURN TO STIMULUS OF SOCIAL CONSTRUCTION**

### **GEOGRAPHICAL LITERACY: A RETURN TO THE STIMULUS OF SOCIAL CONSTRUCTION**

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#### **Summary**

In the initial grades, geography falls under social studies together with sociology and history and aims to study geographic space. School-age children, around 6-7 years of age, have the competence to learn to orient themselves spatially, this psychogenesis of the notion of space is constructed according to the child's cognitive development. It is a long process and you should not skip phases. There are relevant aspects such as body schema, laterality, topological spatial relationships. This entire trajectory of the child's experimentation becomes the construction of the psychogenesis of the notion of space. **Keywords:** Geography. Space. Body Scheme. Laterality. Topological Spatial Relations.

#### **Abstract**

In the early grades, geography fits into social studies along with sociology and history and aims to study geographic space. Schoolchildren, around 6-7 years old, have the spatial competence to learn to orient themselves, this psychogenesis of the notion of space is built according to the child's cognitive development. It is a long process that should not be skipped. There are relevant aspects such as the body scheme, laterality, topological spatial relationships. This entire trajectory of the child's experimentation becomes the construction of the psychogenesis of the notion of space.

**Keywords:** Geography. Space. Body Scheme. Laterality. Topological Spatial Relations.

#### **1. Introduction**

This article understands the importance of making a child geographically literate so that they can assimilate other concepts that will come during their school life.

Social studies make up an important part of the child's learning, and geography, as an integral subject, completes the framework to add long-term knowledge to the student, therefore, the development of the psychogenesis of the notion of space comes into play, in which the teacher has fundamental role.

Some concepts are presented that are part of the psychogenesis of the notion of space, such as laterality and body schema, which are content worked on since the initial grades and the basis for cognitive development according to (ALMEIDA E PASSINI, 2010). Next, there are the concepts of topological spatial relationships that improve the spatial perception that the child must have and thus contribute to the formation of cognitive skills. Finally, the

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Jean Piaget's theory of psychogenesis completes this article with the stages of cognitive development.

## **2 Theoretical foundation**

Geography aims to study geographic space, however, school geography, to achieve the aforementioned objective, must deal with representations of the child's life, with everyday life in order to bring science closer to the student. Valuing the student's experience, as pointed out by (PENTEADO, 1994), means taking the student to be an active element in this universe and learning process.

According to the statement by (CASTROGIOVANNI, 2000 p. 11) "researchers prove that many of the teachers who work in the initial grades were not literate in geography". This literacy must be understood as constructions of basic notions covering location, organization, understanding of the structure of spaces and their multidimensions.

In the initial grades, which this article is responsible for, geography falls within the *social studies* along with sociology and history. However, only the area of geography will be mentioned.

School-age children, around 6-7 years of age, have the competence to learn to orient themselves spatially, this psychogenesis of the notion of space is constructed according to the child's cognitive development. It is a long process and you should not skip phases.

The teacher has a fundamental role in this construction, because he will guide the student in small situations and will expand as the student matures. Logically, this child will go through more than one teacher until he acquires this skill.

As discussed (ALMEIDA; PASSINI, 2010), the exploration of the child's body takes place from birth, through experiences in their surroundings, such as being touched, held in the lap, sucking the mother's breast to breastfeed, these actions make up the process of learning space that will be stored in a body memory that will serve as the basis for spatial references in the future.

During this process, two aspects are relevant: the *Body Layout* and the *Laterality*." The body schema is the cognitive basis on which the exploration of space is outlined, which depends both on motor functions and on the perception of immediate space". (ALMEIDA; PASSINI, 2010 p. 28). This acquisition of the body schema occurs slowly

from birth to adolescence. Elementary children<sup>1</sup>, when playing in the yard they prefer to delimit spaces to feel safer. As they mature and get used to the environment, they begin to have a more secure spatial amplitude and thus the spaces advance.

What is meant by body schema? Body schema is nothing more than the knowledge and representation of one's own body. It plays a fundamental role in the relationships between the inner world and the outer world. The child learns to feel each part of their body, which opens the way to achieving autonomy by learning to outline and implement what they think through movements.

In a systematic way, the teacher from pre-school encourages the child to know and explore the body scheme, and even though there is a body memory on the part of the child, there is still a lot to be improved. That is why this issue is so apparent in content, classes, and pedagogical activities. "For Piaget, all knowledge must be constructed by the child through their actions" (PIAGET *apud* ALMEIDA E PASSINI, 2010, p. 22)

Next, a script will be presented about the child's body diagram. This suggestion should be applied in the classroom.

- Present the body to the child;
- Highlight the upper and lower limbs, trunk and head;
- Point out the details on the head: eyes, nose, mouth, ear, chin, eyebrows, eyelashes, cheeks, hair;
- In the upper limbs there are shoulders, elbows, wrists, hands and fingers.
- In the lower limbs, the thigh, calf, knee, ankle, shin, foot and fingers.
- Point out that the child's body has positions.

The second relevant aspect for the child's acquisition of body awareness is laterality. This spatial organization will guide the child throughout their life, therefore it must be well explored from the beginning. The teacher must encourage the student to understand control over their body, such as the best training with the right or left hand, the best shot at the ball with the right or left foot, the educator must help the student to lateralize. "The analysis of space must be started with the child first with the body, then just with the eyes and finally with the mind." (ALMEIDA; PASSINI, 2010, p. 30). According to Instituto Neuro Saber (2018 s/p), laterality is linked to the child's internal scheme, enabling them to use their body and one side predominating, the left or the right.

This lateralization is directly linked to the maturation of the sensorimotor centers of one of the cerebral hemispheres.

As the years go by, the body adapts to a side that is called the main or preferred side. Therefore, laterality can be right, left or crossed, which is when the child is left-handed when writing and carrying out everyday activities, but when kicking a ball he uses his right leg, or vice versa. It is not advisable to repress the child's laterality, this aggression creates difficulties in learning and developing reading.

Both the body layout and laterality must be worked on in the form of games, with playful pedagogical activities in order to smooth the entire process and, on top of that, be fun. Thus, as the child progresses through the school years, he becomes aware of his body, learns to move through it and thus move in space.

Continuing, a brief opinion will be presented on topological spatial relationships.

Inside, outside, above, below, in front, behind, near, far, big, small, among others, are the first spatial relationships that the child experiences when they are still young, but they are extremely important, as this memory will help the child to expand projective and Euclidean relations, which will not be focused on in this article,

What would topological spatial relations be?

These are comparative, perceptive relationships that the child develops, of lesser complexity with isolated analyzes of an object. "At the level of perception, topological spatial relations are constituted in relations of *neighborhood, separation, order, involvement* it is *continuity*". (GUERRERO, 2012 p. 47).

Next, notes will be made about each relationship.

-Neighborhood: the child can understand neighborhood relationships by doing comparisons of objects that are on the same plane, close, contiguous;

-Separation: the child realizes that even though objects are together, close and being part of the same plane, they are separated;

-Order: the child realizes that each object occupies a position in space based on a point of view;

-Involvement: the child establishes notions of inside, outside, proximity, contour, centrality;

-Continuity: the child realizes that there is a connection in space, there is no absence of spaces space is continuous.

With more conscious awareness,

The child understands that they can use other references to locate objects, establishing location relationships from different points of view or using a coordinate system, such as addresses. (GUERRERO, 2012 p. 49).

This process that the child experiences is understood as *decentralization*. With the release of egocentrism, the child realizes that every location no longer starts from the origin of their own body and understands that other references can be used without changing the location.

From the moment the ability to decentralize is expanded, the child's cognition develops the *conservation* and the *reversibility*.

As (GUERRERO, 2012) thinks, conservation is seen as a static space, the child does not perceive a possible reversal of positions in the space, which does not occur in reversibility, as the child begins to think of the space as projecting themselves into it.

Such skills develop in children around 7 to 8 years of age and fall within the stage of concrete-operative reasoning, which concerns Jean Piaget's theory of Genetic Epistemology.

The interactionist theorist Jean Piaget (1896-1980) in his studies started from an understanding of development involving a continuous process of exchanges between a living organism and the environment. Thus, in the context of his studies, he elaborated four stages of cognitive development of which this article mentions the penultimate. Are they:

- Sensorimotor stage – from birth to approximately two years of age;
- Preoperative stage – from around two years of age to approximately seven years old;
- Concrete operational stage – around seven years of age until approximately thirteen years old;
- Formal operational stage – around thirteen years of age until adulthood.

This entire trajectory of the child's experimentation leads to the construction of the psychogenesis of the notion of space, which encompasses the following aspects: Space lived, perceived and conceived.

Lived space refers to physical space, experienced through movement and displacement. It is learned by the child through games or other ways of going through it, delimiting it, or organizing it according to their interests (ALMEIDA; PASSINI, 2010 p. 26).

“The perceived space no longer needs to be physically experienced” (ALMEIDA E PASSINI, 2010 P. 26), it occurs around 7 years of age. “And around the age of 11-12 the student begins to understand the designed space, making it possible to establish relationships

between elements only through their representation". (ALMEIDA E PASSINI, 2010 P. 27)

Therefore, for a child to be able to locate themselves in space, being aware of their body, objects and even places, it takes time for their cognitive skills to mature and for internal and external experiences to be honed and provide the child with a logic in the multidimensions that geography encompasses.

### **Final considerations**

Due to what has been mentioned, it is understood that it is very important that school-age children must be geographically literate so that their spatial skills are mature in order to provide a vision of the multidimensions that geography encompasses.

It is also understood that this process is long and requires the participation of all teachers, from kindergarten to the end of elementary school 1 and that a job well done helps in the teaching-learning process.

It is necessary that the concepts of corpora scheme, laterality, topological spaces are treated seriously by educators as they are aspects that have a direct connection with the child's cognitive abilities.

Given the above, a request is made to educators to turn their attention to geographic literacy so that greater losses are avoided and a critical, questioning, thinking citizen is formed.

It is hoped that this article can inspire more readers to investigate and deepen studies on this subject with the aim of advancing research and thus contributing to education.

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