

The Educational Imagination of Children: An Approach in Light of Psycholinguistics

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Abstract:

It is well known that linguistic signs are not the only tools used in human communication. Other signs include writing, sign language, symbolic rituals, forms of respect and military signals, to name a few.

While linguistic signs take a linear form in messages and are understood according to a structure determined by sentence syntax, iconic signs spread across image space. Perception of any element within this space does not occur prior to perception of other elements; thus, starting with one element instead of another is at the recipient's discretion. Consequently, verbal messages are constrained by grammatical and usage rules, whereas visual discourse does not adhere to strict syntactic rules and its elements are perceived simultaneously.

Educational images have become one of the most significant means of teaching and guiding children in educational, cultural and human terms due to the constructive values they convey. Images are an integral component of educational discourse. So how can we harness their power to shape children's educational imagination and enhance their intellectual, creative and educational development?

Keywords: images, educational imagination, psycholinguistics.

First: The image: Its concept, importance, and types

The image is a common subject in various sciences and fields, including cognitive psychology, philosophy, logic, sociology, cultural anthropology and criticism, as well as other social, human and technical sciences. According to Hussein Hnifi, 'The image is the mediating world between reality and thought, between sensation and intellect.' Humans live in a world of objects, and indeed in a world of images that define their perception of the world and the nature of their social relationships." The dialogue that occurs between two parties takes place between each party's image of the other in their mind. Civil wars within nations and major conflicts between states are, in fact, conflicts between opposing images created by the media, education, and culture¹.

The image is an effective communication tool with multiple functions. It is also a form of cultural representation, particularly in the context of visual culture today.

It enables us to recognise the significance of the visual world in creating meanings, establishing and maintaining aesthetic values, and understanding power relations within any culture. It reveals the psychological dynamics of the processes of observation and reception, which have a strong influence on this field².

Thus, this new field of knowledge related to visual culture establishes its own world.

According to Erit Rogoff³, intertextuality enables images, sounds, layouts and spatial

¹- 'The World of Objects or the World of Images', by Hassan Hanafi, in *Fusul Journal*, Issue 62, 2003, pp. 26–27.

²- See also *A Study of Visual Culture* by Irit Rogoff, translated by: Shakir Abdel Hamid, *Fusul Journal*, Issue 62, 2003, p. 164.

³- See also: The same reference, p. 165.

descriptions to be read through various other media, reflecting the current moment in cultural studies and its complexities.

Images accompany discourse because they are supposed to be understood quickly, thus facilitating rapid comprehension and enabling a large number of people to grasp them. It serves as an explanatory tool that aids understanding and is characterised by an iconic format that can convey meaning more effectively. This intensifies the act of communication, providing the recipient with a crucial service by addressing their affected sensitivity in a manner different from language and awakening the dormant human within.

While language describes and narrates through words and sentences according to linguistic structures, images narrate through their visual spaces and components. This carries meanings deeply rooted in the society and culture to which they belong or speak¹.

1. The Educational Image:

The educational image is a form of visual discourse and a means of language instruction. It has become a parallel text that accompanies the linguistic text, allowing interaction between the two through overlap, interconnection and intertextuality. This interaction produces ideas filled with dense meanings that enhance and develop the vocabulary of children and learners, thereby elevating their

Peirce is considered to be the first person to accurately define the iconic order of signs within the realm of images as the 'Iconic Domain'. This definition provided the first strict theoretical framework for non-linguistic communication, gaining significance through subsequent studies focused on various expressive fields. See Form and Discourse: An Introduction to Phenomenological Analysis by Mohammed Al-Makri (Arab Cultural Centre, 1st ed., Beirut, 1991), p. 39.

¹- See also The Image in Media Discourse: A Semiotic Study of the Interaction of Linguistic and Iconic Systems', by Bashir Ibrir. Fifth International Conference 'Semiotics and Literary Text', Mohamed Khider University, Biskra, 2008, p. 5.

educational imagination. Images are cognitive activities that achieve educational goals, facilitate translation and maturation, and improve the performance of utterance processes. They also encourage creativity in drawing, language practice and writing. First, impactful models must be selected to serve as transitional representations¹.

Images have been integrated into the educational process due to their effectiveness in conveying knowledge and capturing learners' attention. They play a crucial role in 'activating processes of attention, perception, memory, imagination, and creativity'. Contemporary learners "do not live in a world of objects, but in a world of images"², a realm based on learning through visual discourse, the observation and analysis of images, and the understanding of their meanings, which themselves represent symbolic signs³.

As one of the fundamental pillars of non-verbal language, the image creates a tension between space and time: the physical space of two or three dimensions and the spatial dimension of the unknown. It captures fragments of space and time, freezing moments or actions intended to be immortalised. It represents an action: seeing, thinking or dreaming⁴.

¹- The Image in Textbooks: Between Creative Experience and Educational Function and Its Impact on Meaning Production, by Shaaban Bahloul, in *Linguistic Practices*, Vol. 12, No. 2, 2021, p. 279. *Tizi Ouzou*, Vol. 12, No. 2, 2021, p. 279.

²- The Image in the Communication Process: Reading and Designing for Development', Ann and Fred Zumer, translated by Khalil Ibrahim Al-Hamash, International Institute for Adult Literacy Methods, Tehran, p. 31. Khalil Ibrahim Al-Hamash. International Institute for Adult Literacy Methods, Tehran. p. 31.

³- The World of Objects or the World of Images, Hassan Hanafi, p. 27.

⁴- See The Aesthetics of the Image by Nasreddine Layadi in *Arab Radio Journal*, Issue 2, 2003, p. 35.

2. Foundations of the Educational Image's Functioning and Its Relationship with Children:

Considered one of the fundamental pillars of non-verbal language, the image creates a tension between space and time: the physical space of two or three dimensions, and the spatial dimension of the unknown. It captures fragments of space and time, freezing moments or actions intended to be immortalised. It represents an action: seeing, thinking or dreaming¹.

Therefore, it is important for children to perceive and receive images, and then understand them effectively based on their prior knowledge. This equips them with the linguistic skills necessary for reading, interpreting and comprehending its symbolic dimension. This requires building on key foundations that contribute to this understanding. Among these, Philip Shoet mentions the role of the pedagogical image in relation to the child.

Presenting mechanisms of discourse by focusing on diversifying pedagogical images and their strategies to achieve effective acquisition by the child.

Establishing the acquisition of semiotic, pragmatic and rhetorical systems.

- Not presuming prior knowledge on the part of the reader.

In addition to the above, illustrative images play a role in the educational process.

The relationship between images and words stimulates children to learn more.

However, according to Umberto Eco², images can only be understood when they are

¹- See The Aesthetics of the Image by Nasreddine Layadi in Arab Radio Journal, Issue 2, 2003, p. 35.

²- Semiotics of Visual Systems, Umberto Eco, translated by: Mohammed Al-Touhami Al-Amari and Mohammed Oudada; reviewed and introduced by: Said Benkrad, Dar Al-Hewar, 2nd edition, 2013, p. 97.

linked to a cultural code that allows for interpretation and the discovery of hidden meanings. This inclusive and symbolic dimension of the image is 'the product of a structure that combines elements belonging to the iconic dimension (the mimetic tradition of the represented or the visual expression of specific beings or objects) and those belonging to the compositional dimension, manifested in human-created forms and the manipulation of natural elements through cultural experience embedded in furniture, clothing, architecture, colours, shapes and lines'¹.

From this perspective, the image is a complex visual utterance that produces its meanings based on the interaction between two complementary levels of existence in nature. Just as an iconic sign indicates a composition of elements that lead to a specific meaning, a compositional sign only functions as such if it is interpreted as an entity that carries meaning².

Today, images enable us to recognise the importance of the visual world in producing meanings and establishing aesthetic values. They also help us to understand power relations within any culture and reveal the psychological dynamics of observation and reception processes that strongly influence this field.

Second: The Functions of the Image and Its Role in Children's Knowledge Acquisition:

If the language of education is a combination of verbal and visual language derived from observation, this confirms the necessity of paying attention to image technology in a manner that mirrors the significance afforded to formal language in

¹- Semiotics of the Image: A Semiotic Adventure in the Most Famous Visual Messages in the World, Kaddour Abdallah Thani, Dar Al-Gharb for Publishing and Distribution, Algeria, 2005, p. 35.

terms of organisation and establishment. This is because images can play a significant role in conveying educational messages and organising knowledge networks, thereby transforming teaching and learning into effective skills within the educational field¹.

The functions of the image include:

1. The symbolic function: The image is no longer a static moment or a neutral cultural state. According to Régis Debray, we are faced with an interpretive overload where avenues of reflection open up in response to the cultural resonances emanating from the image. Rather than being merely a preserved entity or a neutral recording of a temporal moment, it serves as a repository of compressed meanings that are transmitted once it reaches the point of observation. In other words, it becomes raw material when it loses its function as a visual substance — it is blind and cannot see because its purpose is to provide vision. It remains unaware of itself unless someone discovers it and transforms it into a source of knowledge. Here, the image loses its innocence and neutrality, becoming subject to the influence of the multiple meanings extracted from it by viewers with different ideological inclinations, who use interpretive and linguistic tools to shape its internal effects². Debray highlights the most important characteristic of the image: its interpretability.

Once the image has been perceived, the search for its meanings begins. One of its most prominent features is its interpretability. Debray asserts that understanding is

¹- Educational Images, Sheikha Othman Al-Dawood, Tahani Mohsen Al-Dalbahi, King Saud University, p. 04.

²- See: Awareness of the Image and the Image of Awareness, Fouad Ibrahim, Philadelphia Conference, Jordan, 2007, pp. 15-16.

impossible without interpretation, emphasising that ‘the image is a sign representing its inherent interpretability’¹.

However, the image presents a dilemma in that it is often unreadable: ‘on the one hand, it cannot speak for itself, and on the other, the tools and mechanisms for reading the image are either unavailable or completely non-existent’².

This makes the image elusive and perpetually evasive, exerting an astonishing influence on its viewers and striving to earn their trust. It possesses immense symbolic power.

2. The communicative function (cultural):

This type of communication, which uses visual images, is related to vision and relies primarily on non-verbal communication, such as body movements, facial expressions and eye contact.

Using images for communication makes them a source of creativity and an artistic means of communication, especially as they are tied to culture. Images convey knowledge and other cultural patterns, such as techniques, information, ethical norms and etiquette. Images are a social process that enable connection with others and integration within society³.

Additionally, the semantic content of the image makes it a highly impactful communication tool, evoking emotional and cognitive responses. This transforms the image into an extended dialogic medium that generates a wealth of meanings and

¹- The Life and Death of the Image, Régis Debray, translated by: Farid Al-Zahi, Afrique Orient, 2002, Morocco, p. 45.

²- See: The same reference, p. 10.

³- See: The Cinematic Image – Technique and Reading, Mohammed Ashweika, Moroccan Arab House, 2nd ed., 2016, pp. 19-20.

significance, occupying a strong presence in daily cultural and cognitive landscapes, particularly in the media.

3. The educational function:

A significant part of teaching linguistic knowledge relies on non-verbal communication, particularly visual aids. Images are one of the most prominent of these and have become a supportive instructional tool.

Recently, interest in the use of images in education has increased, reflecting their status as a means of communication and of transmitting various cultural values. This is due to the richness of meaning in images, as well as their visual appeal, making them impactful across all age groups, especially among children. In such cases, the visual message complements the linguistic message, either reinforcing it or aiding word recognition. As noted, 'when images of key words, illustrations, and other visual aids are used in teaching reading, image reading helps teach linguistic reading'¹.

Furthermore, images play a significant role in 'activating processes of attention, perception, memory, imagination and creativity', which are also essential for learning and teaching. The decisive factors are how images are presented and the methods used for daily exposure to these images, as well as how they are employed in positive or negative ways².

Third: the importance of images for children from a psycholinguistic perspective.

¹- The Image in the Communication Process: Reading and Designing for Development. Ann Zumer and Fred Zumer, translated by: Khalil Ibrahim Al-Hamash, International Institute for Adult Literacy Methods, 1978, Tehran, Iran, p. 21.

²- The Age of the Image – Positives and Negatives, Shakir Abdel Hamid, Publications of the World of Knowledge, 2005, Kuwait, p. 12.

Humans possess non-verbal means of communication that are similar to language. These consist of systems of non-verbal signs that adhere to social agreements and conventions. These systems operate through the senses, which in turn define their function and structure. While the linguistic sign in verbal conceptualisation combines the sound signifier and the abstract conceptual signified, the visual image is based on three elements: the signifier, the signified and the referent. The referent plays a crucial role in shaping the image in terms of its form, printing and style, as well as visually and sensorially encoding it¹.

Thus, in general, an image is 'a representation of visually perceived reality, either mentally or visually, or a direct perception of the objective external world manifested through sensation and vision'².

This representation of reality is characterised by condensation, reduction, abbreviation, change, imagination and transformation on the one hand, and by amplification, exaggeration, enlargement and hyperbole on the other. Therefore, the relationship between the image and representational reality can be one of direct simulation, dialectical reflection, resemblance or stark divergence³.

Images hold significant importance in children's lives and environments, aiding learning, development, and knowledge acquisition. It helps to develop their mental, logical and visual thinking, social intelligence and linguistic, cognitive and intellectual

¹- See: Jamal Hamdaoui, *Child and Image: What Relationship?* Al-Muthaqaf Library, 1st ed., 2016, p. 10.

²- *semiotics of the Image*, Kaddour Abdallah Thani, Al-Riwaq Publishing and Distribution Foundation, 1st ed., Amman, 2007, pp. 24-25.

³- See: *Child and Image*, Jamal Hamdaoui, p. 10.

frameworks, and teaches them to read and write. Thus, 'the image assists the child in constructing their personal world by imitating the world of images or by comprehending their semiotic meanings in order to align with objective reality and adapt to situations based on what they have gained from their images'¹.

The image marks the beginning of 'discovering the societal reality of the world in which the child lives — a world governed by laws, customs and traditions to which they must learn to adhere. In other words, the pleasure principle that characterised the previous stage of development must give way to the reality principle'².

As the subject of this study is the non-verbal visual image, which provides a tangible and concrete representation of the world, it is distinguished from other rhetorical and linguistic images by its abstract, imaginative energy, which is characterised by its visual, optical and semiotic nature. In this context, the signifier, signified and referent intertwine to form the image sign. One of its characteristics is that it is a sensory image that appeals more to the eye than to the other senses. It is associated with shape, colour, line, dots, form, impression, shot, light and numbers, among others³.

Children are the most current consumers of images, which dominate human experience at all levels and continue to influence children's behaviour, actions and thought patterns, for better or worse.

¹- The same reference, p. 14.

²- Child Psychology, Ahmed Ozi, Dar Al-Najah Al-Jadida Press, 3rd ed., Morocco, 2012, p. 112.

³- See: The Image and the Child, Jamal Hamdaoui, p. 11.

Thus, the educational image is important for engaging learners as it links the verbal component and vocabulary to their conceptualisation. It helps teachers connect learners with their familiar world, facilitating the acquisition of linguistic knowledge and the development of skills^{1,2}

Researchers argue that the educational image is important because it functions effectively and is close to students, who are inclined towards shapes and colours that capture their attention and inspire ideas. As Firth states, 'It is the main common factor in most visual and direct educational presentations, and it is particularly the backbone of visual presentations, as the majority of projectors display educational images, with few exceptions.'

The image is not merely a visual equivalent of the verbal, nor an added supplement that can be dispensed with. 'It is a special mechanism for sensing the existence of objective data and a way of comprehending it according to iconic determinants that enable a person to locate themselves within their surroundings in terms of colours, shapes and sizes.'³ Alternatively, it can be described as 'a form of representation that allows the human mind to conceive and engage with what comes from its environment'⁴.

The educational image is primarily cognitive, but is also emotional and affective, as well as kinetic, embodying action, performance and achievement. Therefore,

¹- See: Psycholinguistics, Abdul Majid Said Ahmed Mansour, Dar Al-Uloom for Books, Damascus, 1989, p. 46.

²- Technology of Producing Educational Materials, Abdul Azim Abdul Salam Al-Farghani, Dar Gharib for Printing, Publishing, and Distribution, Cairo, 2002, p. 91.

³- The Advertising Image: Mechanisms of Persuasion and Significance, Said Benkrad, Arab Cultural Center, 1st ed., Casablanca, 2009, p. 149.

⁴- Michel Denis, Image and Cognition, PUF, 1989, p. 9.

educational studies recommend focusing on programmes that help children develop their perception, as this is a psychological activity not subject to the constraints of logic. Images carry symbolic meanings that entire texts may not be able to convey. ‘We speak in one world, but perceive in another; the image is symbolic, yet lacks the semantic characteristics of language. It embodies the childhood of the sign, and this authentic nature grants it unparalleled communicative power’¹.

The elements of the image resemble the units of natural language in their capacity to denote and transform into signs representing people or objects. However, they surpass them in that they do not denote anything or anyone directly, but instead refer to a context — whether broad or narrow — that cannot lead to anything outside of itself².

A summary of Firth’s points regarding the value of the educational image includes:

It presents scientific facts in visual form.

It provides learners with a means of comparing dimensions, distances, shapes and sizes.

- It effectively assists learners in deductive thinking.

Additionally, Brown, Wich and Carleton emphasise the importance of the educational image in that it is:

- varied in styles and methods of presentation and formation.

- A common element in most educational presentations.

¹- Régis Debray, *Life and Death of the Image* Gallimard, 1992, p. 60.

²- *The Advertising Image: Mechanisms of Persuasion and Significance*, Said Benkrad, p. 150.

- Easy and quick to produce and obtain.

Minsterberg also considers it a cognitive link in the learner's journey as it can achieve the intended goal, but this depends on the learner's ability to acquire the intended knowledge.

- The learner's ability to acquire the intended knowledge from the image.
- Their full awareness of the difference between their prior knowledge and the information provided by the image, whether new or familiar.
- their emotional response when viewing the image, and their ability to express new impressions arising from observation in comparison to previous experience with the image¹.

Conclusion:

The perception of the image is derived from human experience. Any attempt to understand and define the essence of an iconic sign requires prior knowledge open to multiple worlds.

The image possesses a symbolic dimension and the ability to persuade and excite due to the meanings and references it conceals. This ambiguity can foster a sense of curiosity and enjoyment in learners.

- The educational image is considered a modern art form and real spatiotemporal art, relying on the connection and harmony of three dimensions: the sender, the discourse and the receiver. The sender is the teacher, who selects the educational

¹- See:Psycholinguistics, Abdul Majid Said Ahmed Mansour, p. 12.

technique to engage learners in cognitive discourse. The receiver is the learner who responds to and is emotionally impacted by the observed educational programme.

The educational image has become essential in education as it activates and reinforces the learning process through images of various forms and sizes. This enables information to be retained in learners' memories in ways that formal linguistic expression cannot.

Images and illustrative drawings aimed at teaching children (in stories, books and games, for example) perform multiple pedagogical functions, enabling them to make an urgent impact similar to that of linguistic texts.

Visual and pictorial forms targeting children enhance cognitive perception and visual thinking, fostering a visual culture that increases the effectiveness of learning and teaching processes.

The image can elevate children's aesthetic taste, helping them to create situations, recall their environment and enrich their verbal vocabulary. This enhances their dialogue and conversation skills.

Effective use of images contributes to the development of an educational imagination in children, helping to shape their perceptions and motivate them in the learning process.

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