
 Revista de Estudios sobre Lectura	<h1>Ocnos</h1> <h2>Revista de Estudios sobre lectura</h2> <p>http://ocnos.revista.uclm.es/</p>	 Open Access Full Text Article
--	--	--

Literacy to see: the importance of learning to read, understand and analyze images

Alfabetizar para ver: la importancia de aprender a leer, comprender y analizar imágenes

Flávia Gomes-Franco-e-Silva
<https://orcid.org/0000-0002-0608-2567>
Universidad Rey Juan Carlos

Received:
15/07/2019

Accepted:
20/10/2019

ISSN: 1885-446 X
ISSNe: 2254-9099

Keywords:
Visual literacy; Picture Books;
Children's literature; Reading
Skills; Reading Comprehension.

Palabras clave:
Alfabetización visual;
álbum ilustrado; literatura
infantil; habilidades lectoras;
comprensión lectora.

Contact:
flavia.gomes@urjc.es

Abstract

The present study emphasizes the importance of visual literacy understood as the ability to decode images, including the semantic depth of the iconic message, accompanied or not by text. To observe the performance of university students in terms of reading images and perception of implicit and subtle meanings, an experiment is conducted with students of the Degree in Early Childhood Education and Philosophy of Rey Juan Carlos University during the 2018-2019 academic year. The investigation consisted in the exposition of the experimental group ($n = 209$) and the control group ($n = 51$) to the reading of an illustrated album in the classroom, answering a questionnaire based on the meanings of the images that illustrate the book. The results detect a deficit visual reading level in both groups, which does not correspond to the profile of the competent reader. It is observed the need to develop specific skills of reading images, equipping future teachers with tools that allow them to encourage schoolchildren in the development of thinking and critical look.

Resumen

El presente estudio hace hincapié en la importancia de la alfabetización visual entendida como la capacidad de decodificar imágenes, comprendiendo la profundidad semántica del mensaje icónico, acompañado o no de texto. Para observar el desempeño del alumnado universitario en cuanto a la lectura de imágenes y percepción de significados implícitos y sutiles, se realiza un experimento con estudiantes de los Grados en Educación Infantil y Filosofía de la Universidad Rey Juan Carlos durante el curso 2018-2019. La investigación ha consistido en la exposición del grupo experimental ($n = 209$) y del grupo de control ($n = 51$) a la lectura de un álbum ilustrado en el aula, contestando a continuación un cuestionario basado en los significados de las imágenes que ilustran la obra. Los resultados detectan un nivel de lectura visual deficitario en ambos grupos, el cual no se corresponde con el perfil del lector competente. Se observa la necesidad de desarrollar habilidades específicas de lectura de imágenes, dotando, sobre todo a los futuros maestros, de herramientas que les permitan fomentar en los escolares el desarrollo del pensamiento y la mirada crítica.

Gomes-Franco-e-Silva, F. (2019). Literacy to see: the importance of learning to read, understand and analyze images. *Ocnos*, 18 (3), 48-58.
https://doi.org/10.18239/ocnos_2019.18.3.2103



Introduction

Literacy is the process by which reading and writing are taught within the framework of the acquisition and reproduction of signs. This work is normally carried out in schools, where formal education often uses specific reading and writing methods that focus primarily on the progressive approach to letters, syllables and words.

With regard to core subjects, according to Royal Decree 126/2014, dated 28th February, which sets forth the basic curriculum for Primary Education: “The aim of the subject of Spanish Language and Literature in Primary Education is to develop basic skills in the use of language: listening, speaking, reading and writing, in an integrated way”. Hence the importance attached by law not only to literacy, but also to the functional use of language in all its forms.

The need for literacy to perform basic and routine daily activities is out of question. Exposure to and interaction with linguistic signs is continued, so it is understood that, in order to communicate with their environment, a person must know how to decode the different messages that reach them through different channels and supports.

However, conventional literacy focuses on decoding and use of written language, ignoring other signs around us that characterise visual culture, permanently reinforced, permanently reinforced by the screens that have colonised virtually all environments. This literacy, focused on the linguistic code, does not account for the teaching of the contents conveyed by iconic messages, nor for their meanings or communicative intention. There is an imminent need to incorporate new forms of literacy into formal education, including the ability to decode images as part of the acquisition and development process of reading competence.

Reading images, a prerequisite for literacy

In parallel with the written text is the iconic text, whose predominance of the image is remarkable (Regalado-Baeza, 2006). This is a characteristic phenomenon of the image culture in which today’s society is inserted, continuously exposed to massive iconic messages in all environments and media.

This type of language, which emphasises images compared to texts, forms a code that is different to the traditional written code. Images make up a singular code, whose learning is not regulated; it is not usual to teach how to read images with specific didactic methods, although the value of iconic elements is known when it comes to transmitting messages and communicating.

Visual literacy is a concept that emerged in the late 1960s. According to Horting (1983, p. 99), “*Visual literacy is the ability to understand (read) and use (write) images and to think and learn in terms of images, I mean, to think visually*”. The practical application of this concept, which provides for both the reception and the production of images, prevents careless exposure to the icons that make up the messages accessed by citizens -voluntarily or not- in the media, advertisements, catalogues, social media, videogames, etc. (Avgerinou & Ericson, 1997; Ferreras-Rodríguez & Leite, 2008).

The acquisition of content without prior selection and without any critical criterion is the direct result of such careless exposure. The message is sent to the receiver who acts as such, receiving without barriers or filters what in marketing is known as a call to action (drink, eat, buy...). In line with the analogy with marketing, the absence of a visual literacy that turns readers into “active observers” (Regalado-Baeza, 2006, p. 21) increases conversion rates, since the image reaches a recipient without the tools to react dif-

ferently than expected. Therefore, the message accomplishes its mission -and converts- when it gets the receiver to drink, eat, buy...

In this respect, it should be noted that language has been used throughout history as a tool for manipulation. However, it is not only oral or written language that can be treated as a communicative element, but also the image, whose iconographic code establishes its own rhetoric (Barthes, 1986). In this sense, it is noteworthy the importance of the visual as a language *per se* and constructor of the new rhetoric in digital discourse (Cantamutto & Vela-Delfa, 2016).

Visual language, culture and communication

The definition of visual language by Debes & Williams (1978) refers to the intentional use of signs that have been acquired within a certain cultural framework, according to culturally established standards, for the purpose of communicating. Decoding, interpreting, understanding and analysing are steps linked to language acquisition and the gradual mastery of the linguistic code, a process that begins with conventional literacy. However, the communicative act does not lie only in acts of speech forged within oral or written language, as it can take place through visual language.

From the point of view of education, education for the media, education for reception or edu-communication (Aparici, 2003, 2010; Barbas-Coslado, 2012), which contemplate the relevance of the iconic message in the communicative process, play a valuable role in the education of children. However, they do not focus only on the image, but on all types of messages broadcasted by the media in order to identify the elements that condition the view of the world any person may have when exposed to the media agenda. On one hand, they help acquire the iconic code and, on the other hand, they provide us with specific tools for the development of

reading, comprehension and image analysis skills.

On its part, visual education affects the contents, subjects and artistic disciplines for students to acquire elements that help them in the process of creating their own images in the artistic context. In this regard, there are some incipient initiatives related to learning to read artistic and plastic works in primary education (Rojas, 2017; Sánchez-Ruiz, 2017). However, visual literacy transcends the limits of art and reaches everyday life. The process of visual literacy prepares the individual to communicate with and through the image, training him/her in what might be called visual communicative competence.

The acquisition of communicative competence *per se* is largely linked to cognitive development, since communication often occurs through the symbolic representation of reality. According to Piaget, the capacity of abstraction is reached at the stage of formal operations (from about 12 years old). At this stage, the individual develops logical and symbolic intelligence, as well as abstract thinking, he/she is able to transcend reality, which greatly expands his/her capacity to understand the world (Cano-de-Faroh, 2007; Piaget, 1986; Wadsworth-Barry, 1992).

In line with the above, reading images implies the development of thinking. To this end, the actors involved in the education of children should not assume that image reading is an innate ability. Although children show great interest in the images illustrated in children's books, such interest and ability to recognise the signs depicted do not indicate a capacity for understanding and analysis.

Reading based on the literal recognition of symbols is superficial, first-level reading. According to Vygotsky (Cole, 1984; Moll, 1990), the training agent is responsible for working in

the child's Zone of Proximal Development (ZPD), for driving him/her to other levels of reading that activate imagination, creativity and, over time, logical intelligence, hypothetical-deductive reasoning and critical thinking.

Soto-Grant (2017, 2018) believes that this work should begin in pre-school education, but finds that teachers lack knowledge on the importance of visual literacy and, at the same time, that there is an absence of didactic methods and specific resources focused on this subject. On the other hand, Magro-Gutiérrez & Carrascal-Domínguez (2019) present a more encouraging scenario in this respect through the implementation of Design Thinking in Childhood Education to actively promote visual literacy.

In the same way that reading of texts is based on methods that prioritise recognition and decoding, and then deepens understanding, reading images should also be approached in a sequential manner, a process that would culminate in interpretative and analytical capacity. All this without ignoring the visual language that emerges from new hyper-connected and interactive environments, such as the social media, and the value of the audiovisual paradigm in literacy (García-Sánchez, Therón & Gómez-Isla, 2019; García-Sánchez, Cruz-Benito, Therón & Gómez-Isla, 2015; López-Valero, Hernández-Delgado & Encabo, 2017).

Objectives and methodology

The main objective of this study is to analyse the performance of university students in terms of reading competence applied to images. We intend to determine the current state of the students' visual literacy with regard to their ability to perceive the subtle meanings and implicit senses of the iconic elements to which they are exposed.

We chose university students as they are supposed to be competent readers already.

Although it is true that this premise is related to reading and interpreting texts, given the importance of images as a complementary part of the text or even as messages *per se*, it is understood that the concept of reading competence must include reading images.

A mixed methodology is applied with a twofold perspective, qualitative and quantitative. An experiment was designed with university students to verify their visual reading level. For the fieldwork, an illustrated album was chosen for reading in the classroom. Illustrated albums can be defined as "*a form of expression that present an interaction between texts (that can be underlying) and pictures (spatially prevailing) within the support, characterised by a free organisation of the double page*" (Van-der-Linden, 2007, p. 87). According to Duran (2009), this new narrative genre immerses the reader in a representation of the world through communication between image and word, promoting a pedagogy of imagination around visual language.

We are referring to the album *Es así*, by Chilean author and illustrator Paloma Valdivia, first released in 2010 and reprinted in 2017 by the Fondo de Cultura Económica de México (figure 1). This work was chosen due to the predominance of images over text and its layout, as well as to the strong metaphorical element that drives the reader to a topic that is not very frequent in children's literature: death.

The topic addressed in the book becomes relevant due to the myriad of symbols around it. Death, a question whose transcendence goes beyond rational explanation and reaches dimensions such as culture, faith or religion, becomes a suitable topic for its symbolic representation. Through large-size illustrations, striking colours and a particular aesthetic, the narrative attempts to normalise death and suggest that it is part of life, with an approach accessible to children.

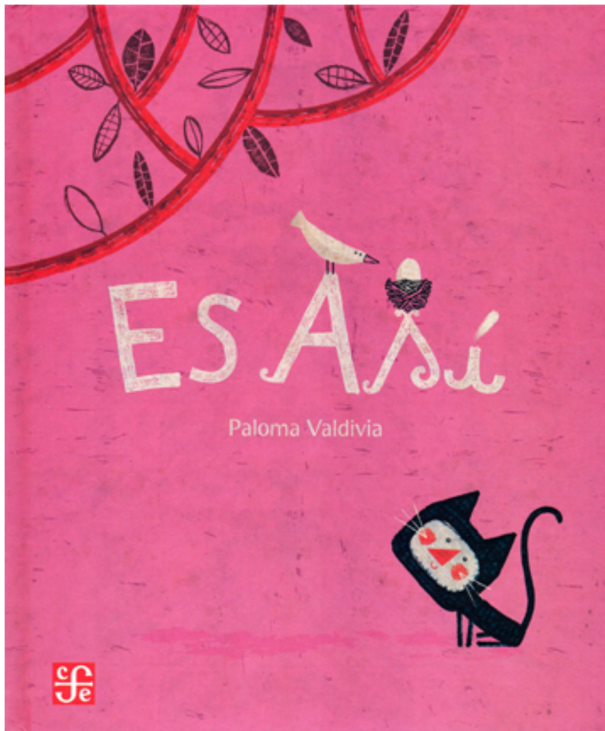


Figure 1. Cover of the book used in our experiment. Source: Valdivia (2010).

We believe it was advisable to choose this material because, in illustrated albums, the image complements and even transforms the meaning of the text for its symbolic value and semantic depth (Borda-Crespo, 2017). Sometimes the eloquence of images allows for following the story without taking the text into account (Neira-Piñeiro, 2018).

The work is aimed at the Childhood Education stage, so that children access the story because of the literate narrator reading it aloud combined with the visualisation of images. The iconic content plays a key role when understanding the message, so it is inferred that images must be comprehensible to the adult audience.

The experiment was carried out in the academic year 2018-2019 with students from Year 4 of the BA Degree in Teaching of Childhood Education (n= 209) Year 1 of the BA Degree in Philosophy (n= 51), in classroom mode, from

Universidad Rey Juan Carlos (Madrid, Spain). The only group of the year 1 of the BA Degree in Philosophy is attended by students of the single degree, with 16 students in the academic year 2018-2019, and also by students of the Double BA Degrees in Philosophy and Political Science (n= 13), Philosophy and Economy (n= 15) and Philosophy and Spanish Language and Literature (n= 7).

The students from the BA Degree in Childhood Education are the experimental group due to the specific training that prepares them to become teachers. The point of departure is the premise that final-year students have already handled enough teaching materials and children's literature, making them suitable adults for the transmission of knowledge and culture. *A priori*, it could be said that these students would not find it difficult to recognise the value of images in a children's story and, consequently, to identify their symbolic significance.

On their part, the students of the BA Degree in Philosophy are the control group since they have not received specific training to carry out preschool educational tasks. Therefore, they would not be prone to approach the work with a pedagogical view. As first-year students, they have their first contacts with philosophy from an academic and professional point of view through subjects that stimulate abstract and critical thinking. They are also people who have been exposed to images in their daily lives since they were children, but they have not been trained to decode images. In this sense, it could be assumed that students from the BA Degree in Childhood Education have a more informed view of the communicative power of images, given the value they have in education prior to formal literacy.

The reading procedure was the same in both groups. The book was scanned from the front cover to the back cover, including all the pages sequentially and respecting the effect of the double pages to be displayed as a whole. The

scanned work was shown in the classroom using a projector, without explaining the task in order not to condition the results. They were told that a book would be shown using a projector and read aloud by the teacher, who would invite them to follow what was being read on the screen.

After reading the book, they were given a questionnaire with short questions they should answer only yes or no depending on whether they had identified the messages conveyed by the illustrations. To this end, the pages mentioned in the questionnaire were shown again using a projector as a review, although answers should correspond to the initial perception. It was decided to show the relevant pages using a projector again on the assumption that many students would not remember the specific content of each page and that they might not have been aware of the aspects contemplated in the questions, in which case the answer would be “no”.

The questionnaire was then presented. It follows the sequential order of the story, focusing on pre-selected pages because of their symbolic and metaphorical content:

1. Did you see the representation of the passage of time in the leaves of the tree on the cover?
2. On the cover, did you infer that the egg represents those who are born and the bird, lurked by the cat, represents those who die?
3. Did you see the chick on the first page hatching from right to left?
4. Did you notice the positions of the grandmother and the little girl (the grandmother to the right and the little girl to the left) on the third page?
5. Did you see that all the characters on the sixth page have wings?
6. On the tenth page, did you notice that the little girl and the bird are looking to the left as they cry at those who are leaving?
7. On the next page, did you see that the grandmother has wings?
8. Did you notice that the positions of the characters are repeated (left/right)?
9. On pages 16 and 17, did you see the cat chasing the bird?
10. On pages 18 and 19, did you notice that those who die do so from left to right?
11. And that those who are born, on pages 20 and 21, do so from right to left?
12. Did you see the representation of generational change on pages 28 and 29?
13. And that the cat is still chasing the bird?
14. On the back cover, did you see that the cat finally eats the bird?

In order to calculate the results, the questions that make up the questionnaire were classified into six categories based on their ability to identify certain elements of the iconic narrative and to link them to their meaning:

- a) It detects the symbols of the passage of time: question 1.
- b) It detects the symbols of birth and death: question 2.
- c) It detects the symbols of the characters' location (right/left): questions 3, 4, 6, 8, 10 and 11.
- d) It detects the symbols of death in those characters with wings: questions 5 and 7.
- e) It detects the symbols of death as part of life: questions 9, 13 and 14.
- f) It detects the symbols of generational renewal: question 12.

Results

After reading this illustrated album, a total of 260 university students answered the questionnaire. Tables 1 and 2 show the results obtained after classifying the questions into categories based on the different symbols and representations contained in the work. The proportion of affirmative and negative responses are shown based on the students' perception after being exposed to a work unknown to all the students who took part in the experiment for the first time, which ensures that the responses are not

conditioned by any previous exposure to the chosen book.

guided reading through the questionnaire, were obvious to them. That time, they were reminded that they should answer the questions considering the initial perception.

Table 1
Identification of symbols by the students of the BA Degree in Childhood Education (%)

Category	Yes	No
It detects the symbols of the passage of time	8.2	91.8
It detects the symbols of birth and death	9.8	90.2
It detects the symbols of the characters' location (right/left)	59.6	40.4
It detects the symbols of death in those characters with wings	32	68
It detects the symbols of death as part of life	14.7	85.3
It detects the symbols of generational renewal	80.3	19.7

Table 2
Identification of symbols by the students of the BA Degree in Philosophy (%)

Category	Yes	No
It detects the symbols of the passage of time	3.6	96.4
It detects the symbols of birth and death	0	100
It detects the symbols of the characters' location (right/left)	36.3	63.7
It detects the symbols of death in those characters with wings	32.1	67.9
It detects the symbols of death as part of life	14.3	85.7
It detects the symbols of generational renewal	78.6	21.4

The students were surprised to see the pages the questions referred to for the second time and realised that they had not detected all the elements -or sometimes none- which, in a

The content of the cover in terms of the representation of time and the ephemeral represented in the stages of the leaves of the tree went unnoticed by most of the students. As far as the BA Degree in Childhood Education is concerned, there is a higher percentage of affirmative responses (8.2%) compared to the responses related to the BA Degree in Philosophy, its perception percentage being very low (3.6%). In any case, there is a difficulty in transcending the meaning of the tree as a representation of life and the change of seasons -ergo, the passage of years- represented in the different appearance of the leaves.

The cover contains a series of symbolic elements that contemplate the cycle of life. In addition to the tree, the reader is offered three key images (figure 1): a nest with an egg, carefully watched by a bird which, in turn, lies under the watchful eye of a cat who clearly intends to catch it. The evidence, however, is questionable when one analyses the proportion of students who answer negatively to the second question, corresponding to the second category, considered independent due to the set of symbolic elements that are gathered only on this occasion throughout the book. On one hand, although it is striking that 90.2% of the respondents from Childhood Education do not get the relevant message, on the other hand, the absence of affirmative answers in Philosophy is even more discouraging.

With respect to the representation of birth or death according to location of the characters (right/left), it is remarkable 59.6% of students from the experimental group who claimed that they had detected it, compared to 36.3% of students from the control group who answered in the affirmative to the questions belonging

to the third category. This being a frequent dynamic in the narrative, a greater percentage of affirmative answers could be expected.

The results referring to the link between characters with wings and death are practically identical and represent a minority (32%) in both groups. Many participants stated that they had not seen any wings in the book. Probably the students did not detect any wings, which appear four times throughout the story, because wings are not always drawn in the same way, although they are generally represented in the usual way, unfolding from the back (there is only one case where a pair of wings can be seen on the character's head).

The proportion of students who see the representation of death as part of life in the roles played by the cat and the bird in the story is even lower (about 14%). These characters have a remarkable presence in the book, appear on the cover and close the story on the back cover. The fact that only a very small proportion of the groups got the message about the cat that finally catches the bird may be due to a number of factors, such as:

- The illustrations of the cat and the bird appear mostly in the background, which implies reading with a greater degree of depth.
- The difficulty inherent to linking images and their meaning, which, in this case, entailed linking that the bird is lurked and that it is finally caught by the cat, to representing death as part of life, and to the simplicity of everyday events.
- The final illustration, which suggests that the cat has caught the bird, is on the back cover. For this reason, it may be less appealing to the reader's attention.

It should also be noted that this illustration (figure 2), which shows the cat surrounded by feathers and placidly asleep, is really suggestive given the subject matter of the book and the fact that the cat's intent to catch its prey is clear from the cover itself.



Figure 2. Back cover of the book used in our experiment.
Source: Valdivia (2010).

Finally, it is clear that the message that was most accessible to the participants is the representation of the generational renewal in an illustration of a girl on a bicycle, her mother, who is pregnant, and her grandmother, all of them holding hands. The image covers almost the entire double page and highlights the various intergenerational elements in the foreground.

Conclusions

As a result of the experiment carried out with the collaboration of students of the BA Degrees in Childhood Education and Philosophy from Universidad Rey Juan Carlos, it could be affirmed that the visual reading level of university students does not correspond to the fact that they are deemed to be competent readers. Furthermore, bearing in mind that reading competence should go hand in hand with so-called visual communicative competence, research highlights the need for students to

develop specific skills related to critical reading, comprehension and analysis of the metaphorical representation of reality in order to communicate effectively with the symbolic universe.

If *a priori* the premise was that students in the BA Degree in Childhood Education would approach the work with a series of resources provided by the degree in terms of preparation for education and training, it is found that as far as reading images is concerned, there is no significant difference between their performance and that of students from another degree. In this sense, it is important to stress the problems because of the absence of training in reading images in the BA Degree in Teaching. The study detects a lack of preparation among training agents with regard to the promotion and development of critical view within the framework of applied semiotics.

The fact that future teachers do not have the tools to decode images and an informed view to read them can have a series of consequences, one of which would be the transmission of their own shortcomings to schoolchildren, perpetuating an apathetic or naive attitude towards visual culture. The link between the teacher and reading established by the former is reflected in his/her teaching practice, influencing his/her impact on the development of the reading profile of his/her students (Granado & Puig, 2014).

On the other hand, the lack of specific training constrains the creation of images having *per se* a deep symbolic and metaphorical quality. Illustrated albums in Childhood Education are one of the most frequently used tools for the transmission of knowledge and values. Teachers often create their own illustrated stories, so it would be advisable to highlight that visual literacy is not only about decoding, but about producing iconic messages too. Stories designed to promote visual literacy can boost creativity and increase the cognitive skills of children, provided that teachers are properly trained to

act on the Zone of Proximal Development (ZPD) in guided readings of images.

It should also be noted that there are signs that students pay more attention to text than images as they follow what is being read aloud, which may be due to the importance attached to reading and writing to the detriment of images in the basic formative stages. This might cause difficulties in understanding a text that depends on an image to get its full meaning and, of course, in understanding the message that an image devoid of text and the metaphorical meaning it is meant to convey.

Greater contact with graphic novels is suggested with regard to training future teachers. Similarly, illustrated didactic materials could be used to teach the subjects that make up the course of study of the Degrees in Education, offering the students the opportunity to perceive information not only through textual contents. For example, the comic-book format can be a good resource for training their view thanks to the numerous elements that make up any story that does not comply with the canons of linearity on reading both due to the variable layout of the text, and to the need to visualise the images to understand the entire message. On the other hand, the use of Design Thinking as a method for the visual materialisation of ideas in educational contexts that represent a challenge for students can be of great help when creating complex symbolic representations.

It should be noted the need to train view with regard to reading images at an early age, alphabetising children to read linguistic signs and iconic messages so that they become truly competent readers in adulthood. Training agents should highlight the difference between reality and representation in basic training, providing children with tools that allow them to communicate critically and effectively with the signs that surround them.

References

- Aparici, R. (2003). *Comunicación educativa en la sociedad de la información*. Madrid: Universidad Nacional de Educación a Distancia (UNED).
- Aparici, R. (2010). *Educomunicación: más allá del 2.0*. Barcelona: Gedisa.
- Avgerinou, M., & Ericson, J. (1997). A review of the concept of visual literacy. *British Journal of Educational Technology*, 28(4), 280-291. <https://doi.org/10.1111/1467-8535.00035>.
- Barbas-Coslado, A. (2012). Educomunicación: desarrollo, enfoques y desafíos en un mundo interconectado. *Foro de Educación*, 14, 157-175.
- Barthes, R. (1986). *Lo obvio y lo obtuso. Imágenes, gestos, voces*. Barcelona: Paidós.
- Borda-Crespo, M. I. (2017). *El cuento infantil y otros géneros literarios infantiles y juveniles*. Málaga: Ediciones Aljible.
- Cano-de-Faroh, A. (2007). Cognición en el adolescente según Piaget y Vygotski: ¿Dos caras de la misma moneda? *Boletim-Academia Paulista de Psicologia*, 27(2), 148-166.
- Cantamutto, L., & Vela-Delfa, C. (2016). El discurso digital como objeto de estudio: de la descripción de interfaces a la definición de propiedades. *Aposta. Revista de Ciencias Sociales*, 69, 296-323.
- Cole, M. (1984). La zona de desarrollo próximo: donde cultura y conocimiento se generan mutuamente. *Infancia y Aprendizaje*, 7(25), 3-17. <https://doi.org/10.1080/02103702.1984.10822018>.
- Debes, J., & Williams, C. M. (1978). *Visual Literacy. Languaging and Learning Center for Visual Literacy*. Washington, D.C., Estados Unidos: Gallaudet College.
- Duran, T. (2009). *Álbumes y otras lecturas. Análisis de los libros infantiles*. Barcelona: Editorial Octaedro.
- Ferreras-Rodríguez, J. G., & Leite, L. V. (2008). A vueltas con la alfabetización visual: lenguaje y significado en las películas de Wes Anderson. *IC Revista Científica de Información y Comunicación*, 5, 248-287. <http://dx.doi.org/IC.2008.01.08>.
- García-Sánchez, F., Cruz-Benito, J., Therón, R., & Gómez-Isla, J. (2015). Comprendiendo la comunicación visual en las redes sociales: una propuesta real de análisis. *Libro de Actas III Congreso Internacional sobre Aprendizaje, Innovación y Competitividad* (pp. 811-816). Retrieved from https://repositorio.grial.eu/bitstream/grial/476/1/CINAIC_AnalisisComunicacionVisual_FGS_JCB.pdf.
- García-Sánchez, F., Therón, R., & Gómez-Isla, J. (2019). Visual literacy in New Media: Systematic review and mapping of the literature. *Education in the Knowledge Society*, 20, 1-44. http://dx.doi.org/10.14201/eks2019_20_a6.
- Granado, C., & Puig, M. (2014). ¿Qué leen los futuros maestros y maestras? Un estudio del docente como sujeto lector a través de los títulos de libros que evocan. *Ocnos*, 11, 93-112. https://doi.org/10.18239/ocnos_2014.11.05.
- Horting, J. (1983). *Visual literacy and visual thinking*. In L. Burbank, & D. Pett (Eds.), *Contribution to the study of Visual Literacy* (pp. 92-106). Bloomington, Estados Unidos: International Visual Literacy Association.
- López-Valero, A., Hernández-Delgado, L., & Encabo, E. (2017). El concepto de Literatura infantil. Un estudio de caso con maestros en formación inicial. *Ocnos*, 16(2), 37-49. https://doi.org/10.18239/ocnos_2017.16.2.1400.
- Magro-Gutiérrez, M., & Carrascal Domínguez, S. (2019). El Design Thinking como recurso y metodología para la alfabetización visual y el aprendizaje en preescolares de escuelas multi-grado de México. *Vivat Academia*, 146, 71-95. <https://doi.org/10.15178/va.2019.146.71-95>.
- Moll, L. C. (1990). La Zona de Desarrollo Próximo de Vygotski: Una reconsideración de sus implicaciones para la enseñanza. *Infancia y Aprendizaje*, 13(51-52), 247-254. <https://doi.org/10.1080/02103702.1990.10822280>.
- Neira-Piñeiro, M. R. (2018). Posibilidades de secuenciación de las imágenes en el álbum ilustrado lírico. *Ocnos*, 17(1), 55-67. https://doi.org/10.18239/ocnos_2018.17.1.1527.
- Piaget, J. (1986). *Psicología evolutiva*. Madrid: Editorial Paidós.
- Real Decreto 126/2014, de 28 de febrero, por el que se establece el currículo básico de la Educación Primaria. *Boletín Oficial del Estado*, núm. 52, de 1 de marzo de 2014, pp. 1-54. Retrieved from <https://www.boe.es/buscar/pdf/2014/BOE-A-2014-2222-consolidado.pdf>.

- Regalado-Baeza, M. E. (2006). *Lectura de imágenes. Elementos para la alfabetización visual*. México: Plaza y Valdés.
- Rojas, D. A. (2017). *Alfabetización visual una estrategia pedagógica para los procesos de enseñanza y aprendizaje de las artes plásticas* (Unpublished work submitted to obtain Specialist Title, Fundación Universitaria Los Libertadores, Bogotá). Retrieved from <http://hdl.handle.net/11371/1197>.
- Sánchez-Ruiz, D. (2017). *Educación artística y alfabetización visual. Un estudio de caso en la formación inicial del profesorado de educación primaria* (Tesis Doctoral, Universidad de Málaga). Retrieved from <https://hdl.handle.net/10630/16260>.
- Soto-Grant, A. (2017). Fundamentación teórica y propuesta metodológica para el abordaje de la alfabetización visual en el nivel preescolar. *Innovaciones Educativas*, 26, 38-49. <https://doi.org/10.22458/ie.v19i26.1854>.
- Soto-Grant, A. (2018). Skills and strategies required for Visual Teaching Literacy in Preschool Education. *Revista Electrónica Educare*, 22(3), 1-17. <https://doi.org/10.15359/ree.22-3.2>.
- Valdivia, P. (2010). *Es así*. México: Fondo de Cultura Económica.
- Van-der-Linden, S. (2007). *Lire l'album*. París, Francia: L'atelier du Poisson Soluble.
- Wadsworth-Barry, J. (1992). *Teoría de Piaget del desarrollo cognoscitivo y afectivo*. México: Diana.