

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/282133792>

Corporal Imaginaries. Gender Perspective Applied to Digital Media Literacy in Early Childhood

Chapter · September 2015

CITATIONS

0

READS

15

3 authors, including:



[Noelia García Castillo](#)

Complutense University of Madrid

14 PUBLICATIONS 4 CITATIONS

SEE PROFILE

CORPORAL IMAGINARIES. GENDER PERSPECTIVE APPLIED TO DIGITAL MEDIA LITERACY IN EARLY CHILDHOOD.

Ana Solano

Tamara Bueno Doral

Noelia García Castillo

Introduction

The methodological basis of YOYOMIOMIO¹, a video installation intended for display in museums, is fundamentally based on the research of two authors. On the one hand, Marshall McLuhan, by coining the expression *global village*, assured that technologies would be considered extensions of our bodies and senses. This prediction, launched during the 1960s, according to which mass media are observed as prolongations of our nervous system, has actually been surpassed; our bodies now interact with all kinds of electronic elements. On the other hand, [Haraway \(1991\)](#) provides feminism with a powerful understanding of the new possibilities for the human being of today: the postmodern subject by means of the cyborg. In this understanding, the cyborg era is in an advanced state, with the deconstruction of our own bodies to create new models that interact with the electronic elements implanted in them.

The main objective of YOYOMIOMIO, which will be described throughout this chapter, has been to translate into artistic language McLuhan's exploration in the visual and acoustic space, as well as Haraway's assertions about the sex/gender system. In addition, the authors have developed a research methodology that combines electronic art with the creation of corporal imaginaries during the early childhood years.

Gender Socialization during Early Childhood

As we address the theme of children's cognitive development it is essential to mention Jean Piaget's contributions, which are gathered in reference compilations; among these, we highlight the work of Moyer-Gusé and Riddle (2010). The second stage set out by Piaget, which coincides with the child users of the video installation

¹ Translated into English: 'I-I-MINE-MINE'.

YOYOMIOMIO, is conceptualized as the preoperational stage. Moyer-Gusé and Riddle (2010) outline that children from three to seven years old go beyond physical exploration, as they begin to think and reason. Nevertheless, this cognitive ability is restricted by a set of aspects: egocentrism, specific instead of abstract thinking, attention focused on a single element, difficulty distinguishing between fantasy and reality, problems with moral judgements, and difficulty making inferences.

Moyer-Gusé and Riddle (2010) admit that, despite its high relevance, Piaget's theory of development stages has been criticized by some experts who claim that children's development is more gradual, or that many preoperational children are more advanced. Even so, Moyer-Gusé and Riddle consider Piaget's contributions highly useful for understanding children's interaction with the mass media.

Afterwards, Guidano and Liotti (1983) established three main phases for personal identity acquisition, a classification that Jayme (1999) applied to gender identity development. During the first phase, corresponding to early childhood and preschool, the child begins to distinguish between the self and others, and to become aware of his or her own individuality based on his or her own feelings and others' awareness. Significant people in the environment are those who have influence in the child's acquisition of the idea of gender. At the end of this process, gender is regarded as an invariable trait of the person, not defined by merely circumstantial and modifiable aspects. Finally, the child will come to understand the immovable fact of being a boy or a girl.

As children advance through the ensuing phases, which will finish at the end of adolescence, their personal identity will become more consolidated by means of a total identification with a certain model. Jayme (1999) asserts that these models can vary over time, but that they invariably reflect the dictatorship of gender.

According to Martin (2013, p. 1), "gender socialization is the process through which children learn about the social expectations, attitudes and behaviours associated with one's gender". Furthermore, gender is considered to be one of the first social categories children become aware of. However, this gender identity acquisition is a result of the convergence of a set of factors, both cognitive and emotional, that will appear throughout childhood (Jayme, 1999). Jayme describes the following socializing agents that define this social learning:

- *Parents.* The main source of models to imitate. In addition, they communicate differing expectations to their children according to their gender. As it is dictated by social tradition with previously agreed-on stereotypes, parents will dress boys and girls each in a particular way, and will assign them different colours, tasks and toys. Hence, progenitors transmit the contents of femininity and masculinity to the approaching generation.
- *School.* After family, school is the socializing agent par excellence, specially relating to gender. This is because “gender is a major organizing principle, applied to uniforms, curricular subjects, administrative practices, classroom activities and even the use of space within and around the school” (Acker, 1994, p. 93). The transmission of gender establishes differing standards that delimit the possibilities for boys and girls as individual human beings. Within this aspect, educational work plays a crucial role.
- *Peers.* Even during early childhood, children prefer the company of those they consider more similar and closer to them. Due to this, they are more likely to share their time with their same-gender peers. Groups formed separately by boys and girls are defined by opposing characteristics referring to the number of members and the aspects observed as relevant for them (Martin, 2013).
- *Play.* One of the most important methods for transmitting the traditional concepts of femininity and masculinity, but also for exercising cultural roles assigned to gender. Just as Jayme (1999) reports in her research, by the age of three years, boys and girls seem to show a preference towards categorizing toys according to their gender. Despite the passage of time and the growth of the video-game industry, toys for boys include activities such as construction, fighting, action or competitiveness. Meanwhile, toys for girls continue to perpetuate occupational gender roles – mother and housewife, nurse, artist, professional within beauty and fashion, shop assistant, journalist, and teacher (Bueno Doral and García Castillo, 2012).

- *Mass media.* Last but not least, the role of mass media as transmitters of socializing content is expanding with the contemporary development of virtual media. Among all media we still have to include television, whose role in the socialization of children has been thoroughly documented through diverse perspectives such as Social Learning Theory, Cultivation Theory or Uses and Gratifications Theory ([Van Evra, 1998](#)); as well as television advertising. We should also not forget the vital importance of the Internet, which Generation Z children frequently access using their parents' smart devices.

Familiarization in Childhood with Museums and Art

Social reality is constructed, and children are an essential part of this process of construction. The imaginary is one of the constituent elements of the procedure. In the words of Vygotsky (1998):

Imagination, as the basis of all creative activity, is an important component of absolutely all aspects of cultural life, enabling artistic, scientific, and technical creation alike. In this sense, absolutely everything around us that was created by the hand of man, the entire world of human culture, as distinct from the world of nature, all this is the product of human imagination and of creation based on this imagination. (pp. 9–10)

Through children's interaction with installations in museums, we can study the possibilities of this process of reconsideration of their worlds and the basis on which reality is stabilized. Since the 1970s, museums have made considerable effort to adopt a prominent educational function; nevertheless, they ought to develop new narratives that increase the value of material culture and that communicate attractive knowledge and values to visitors ([Pol & Asensio, 2006](#)).

This is an important issue, as the child audience is one of the most important target groups for museums in Spain. However, the current cultural products and services offered by Spanish museums and conceived for children are usually of minor relevance or even virtually non-existent. In addition, studies examining visitors' attitudes and opinions are recent and scarce in this country, and this tendency is even worse regarding the child audience. Very few cultural institutions maintain this kind

of data over time in order to obtain a real estimate of the evolution in audiences depending on the different activities that are carried out. To conclude, in the case of childhood, structural analysis needs to be conducted with a functional examination (Asensio & Pol, 2002).

The Interactive Video installation YOYOMIOMIO

YOYOMIOMIO is a video installation for children aged three to four years, and was designed to be displayed at museums. It is an experimental and play area that allows children to create a corporal imaginary by means of a combination of certain components related to gender schemas. This educational experience is simultaneously accompanied by the projection of an animated film based on a new narrative for children, completing the process of learning that is offered in the video installation. YOYOMIOMIO has been displayed at *Parque de las Ciencias in Granada*, at the *International Festival of Almeria*, and at the *Kursaal Museum in Algeciras*.

The video installation is 95 cm in height, in order to create a familiar space that avoids intimidating or shocking the children. There is a limit of six users per session, so that everyone can create their corporal models on the touch screens during the approximate 30 minutes it takes to interact with the different elements of the video installation.

At this point, we would like to point out that there is no closed procedure or itinerary imposed on the children. Despite all the above-mentioned observations, some instructors (teachers or museum staff who have been duly informed) accompany the children during their first contact with the interactive environment, created exclusively for them.

Image 1. The YOYOMIOMIO video installation.



Artist Ana Solano designed this interactive video installation with the following *main objectives*:

- Children's identification with the five elements by means of a narrative piece projected in an 'identity crater'.
- Construction and deconstruction of a corporal imaginary before gender conceptualization has taken place. This is the reason for the age selection of those who are to experiment with YOYOMIOMIO.
- Observation of the corporal imaginaries created and projected, as well as of the audiovisual proposals arranged in the different sections of the video installation.

After a complex process of research deriving from documentary analysis and prior experimentation, Solano conceived the video installation with the following important *aspects* or principles to consider:

- *Chromatic language*. The use of three colours – orange, blue and green – in the identity crater, on touch screens and in audiovisual pieces. These colours are used in an identitary way in each corporal imaginary, which is translated to the rest of the artistic video installation, creating a whole.
- *Tactile sensation*. Materials are crafted considering the sense of touch, so that the pressure the children apply to the elements invites them to relax

and concentrate. This atmosphere is a result of a combination of soft textures, comfortable padding and round forms.

- *New technologies.* The use of screens, projectors and cameras that are close to digital natives' reality.
- *Safety.* Consideration of the selection of shapes and fireproof materials –in both inner padding and external textiles.

The video installation

The YOYOMIOMIO² piece is an interactive video installation designed for those in early childhood. As we mentioned in the theoretical framework, at this first stage boys and girls are pure interactive beings. Their associative conscience is linked to collective imagination, subjectivity, improvisation and creation.

The interconnection among the different electronic art tools that can be found in the video installation comes from the abstract play; that is to say, the conjunction of the abstract and the real.

This interconnection takes place by means of three factors:

- the Self as an interactive process
- the Self associated with the imaginary of knowledge or an interaction between the subjective and the real
- the Self as identification with the construction of subject/object

We translate this concept and begin the process of interaction within the video installation.

Image 2. Children using the YOYOMIOMIO video installation.

² Explanatory video available at <http://vimeo.com/82375985>



Construction of the space

The letters forming the title encircle the piece, with the *O*s in the word YOYOMIOMIO serving as the doorways marking the beginning of the activity. Thus, we include a symbolic approach of language that allows the recognition of oneself and others.

The inner area is designed with distinct spaces offering different activities, including connections between visual, tangible and acoustic aspects. Projectors and loudspeakers hang from a large upper ring. From the central column, three displays project in real time the corporal imaginaries created by the children. Under these displays, we find the three touchscreens on which children accomplish the creative and transforming activity.

Touchscreens, as an artwork in motion that is easily and uniformly recognizable, propose the creation of a corporal imaginary to the children before gender conceptualization has taken place. The graphic elements offered on the screens include different acoustic and phonetic responses. When one of these graphic elements is moved across the screen, it acquires its own identity. In this way, the children can work with both the abstract and the real dimensions. These creations of imaginaries are shown by means of screen captures in real time, on larger displays located outside the video installation.

Perception of and identification with the crater

The crater shows an animated short film aiming to be an identity loop that, through a new narrative, gives an account of the transformation of the elements. Music and sounds are specifically designed for the different proposals inside the video installation, so this soundscape puts children in contact with the interaction of the piece.

In the short film *Nací pez*³ (*I was born a fish*), Ana Solano uses a new model of audiovisual story with no reference to Aristotle's mimesis. It is a sound tale with a non-verbal narrative, and refers to the origin of the process of knowledge about the transformation of the four elements – earth, air, fire and water – to which Solano adds a fifth element, metal. This incorporation of the metal element, due to its consideration as an integral part of our bodies, is a response to the latest technological revolutions in consumer electronics, which transform the human body into a new human being that can be defined as a cyborg subject.

The narrative score is based on the visual space, and offers simultaneous access to a non-acoustic space based on new electronic technologies. These cutting-edge technologies use touch as a central concept, and allow the child to connect a multitude of audiovisual proposals among different devices. With this procedure, game is used as a base of simultaneous action and communication for the transformations of the five proposed elements.

Nací pez is an animated short film lasting six minutes, and makes use of an interaction of subjective and objective dimensions. Sound is its narrative component. The video begins with an offscreen voice that relates the development and evolution of the elements – earth, air, fire and water – starting with the Greek myth in which the sea nymph Thetis gives birth to the rivers, and finishing with the last component, the metal that is present in the robot.

Observation

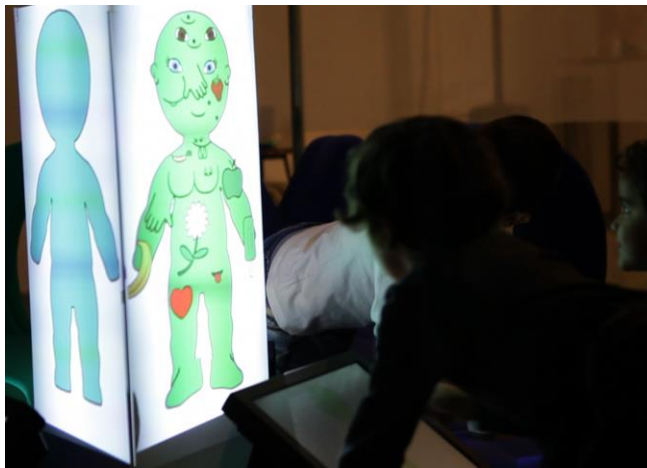
Another space, composed of three television displays, offers proposals to the children watching fragments of the animated short film being shown in the identity crater. There, they discover and recognize interaction with objects and identify the relations between the different areas of the video installation.

³ Available at <http://vimeo.com/77397845>

Finally, there is the zone in which the entire interactive itinerary starts. Apart from being the beginning of these proposals, it is also a rest area for the children who have finished the activity.

Preliminary results observed in children

Image 3. One of the corporal imaginaries created.



1. One of the observed results is that the video installation contributes to the development of multiple intelligences. The theory of multiple intelligences maintains that, instead of a unique intelligence in human beings, there is a diversity of intelligences that determine individuals' potential. These significant accents are defined by children's strengths and weaknesses in a series of expansion scenes of intelligence (Gardner, 1998). Seven intelligences are developed with the appropriate use of the piece: linguistic, logical-mathematical, musical, spatial, bodily-kinaesthetic, interpersonal, and intrapersonal.

2. As regards the suitability of the selected age range, we emphasize that five-year-olds respect their own feminine or masculine identities when creating their corporal imaginaries. Thus, experimentation with this age group is irrelevant because gender conceptualization has taken place. Nevertheless, three- and four-year-olds are conscious of having deconstructed a body when

creating their own corporal imaginaries. This process is in harmony with the cyborg concept.

3. The observations indicate that very young children create using sound and phonetic similarities, so real sense is unnecessary in their constructions. For the creation of their corporal imaginaries, we note that they generate distance between their bodies and the building game. The children were aware of working with another reality on the screen.

4. In all cases, the creation of a new corporal imaginary amuses the children. They laugh when they use any body organ, fruit, flower, etc. and relocate it in unusual places. For example, a child placed an ice cream cone on a foot of the figure, saying it was funny because he could go barefoot. Placing sexual organs on the neck amused them, because in this reality they did not have to go to the toilet. Some placed both sexual organs – masculine and feminine – on their corporal imaginaries. They also played with the different senses: placing ears on the hands, eyes on the mouth, the nose on the forehead, etc. By means of these deconstructions, they play to create the corporal imaginary they conceive in their minds.

5. We have observed in these children a remarkable desire to discover the world and themselves through a playful approach. This way of learning differs from the one they are familiar with. They get involved very easily, developing their creative potential during the identification process with the diverse components proposed in the video installation.

Conclusions

We consider that museums should design strategies including projects combining art, education and research. The planning of activities offered by these institutions must be done considering child psychology, as well as game, creativity and imagination. Too often, museums fail to connect with the child audience because their unique characteristics are not considered in-depth. We have also observed a lack of spaces appropriate for small children in the museums where the video installation has been displayed.

Connecting multiple intelligences with pedagogy in museums is hugely important, because this approach offers new ways to connect with museum audiences. As we have demonstrated in this study, the video installation YOYOMIOMIO allows the generation of new ways of relating among the artist creator, the research process, and the audience.

We stress the value of art in the learning process. Electronic art has a remarkable experimentation component that results in a mixture of artistic languages as well as in a fusion with game. These characteristics enable a greater extension of subjectivity and non-verbal children's language.

We conclude that this preliminary observation is relevant due to the potential of this research. Thus, to achieve conclusive results through a child psychology methodology, we need to continue with the experimentation process; that is, displaying the video installation in new and different museums, even outside our own country, with the aim of accomplishing comparative cross-cultural analysis.

References

- Acker, S. (1994). *Gendered education: sociological reflections on women, teaching, and feminism*. Buckingham: Open University Press.
- Asensio, M., & Pol, E. (2002). *Memoria de Evaluación de la Red de Museos y Centros de Divulgación Científica de la Comunidad de Madrid*. Madrid: Dirección General de Investigación de la Comunidad de Madrid.
- Bueno Doral, T., & García Castillo, N. (2012). Los roles tradicionales femeninos presentes en las carátulas de los videojuegos infantiles. *Creatividad y sociedad: Revista de la Asociación para la Creatividad*, 19, 1–27.
- Gardner, H. (1998). *Inteligencias múltiples: La teoría en la práctica*. Madrid: Paidós.
- Martin, C. (2013). Gender: early socialization – Synthesis. *Encyclopedia on Early Childhood Development*. Retrieved from <http://www.child-encyclopedia.com/pages/PDF/synthesis-gender-early-socialization.pdf>. Accessed 02/15/14.
- Haraway, D. (1991). *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge.
- Jayne Zaro, M. (1999). La identidad de género. *Revista de psicoterapia*, 10 (40), 5–22.

- Moyer-Gusé, E., & Riddle, K. (2010). *El Impacto de los Medios de Comunicación en la Infancia. Guía para Padres y Educadores*. España: Editorial UOC.
- Pol, E., & Asensio, M. (2006). La historia interminable: una visión crítica sobre la gestión de audiencias infantiles en los museos. *mus-A. Revista de los museos de Andalucía*, 6.
- Van Evra, J. (1998). *Television and Child Development*. New York: Routledge.
- Vygotsky, L. S. (2004). Imagination and Creativity in Childhood. *Journal of Russian and East European Psychology* 42(1), 7-97.