



Advertising and media competence for environmental education in primary school students

Publicidad y competencia mediática para la educación ambiental en alumnos de primaria

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Abstract

The media and, above all, advertising play a very important role in the formation of society, especially in the youth sector: In this sense, we must reinforce the pedagogical models in the classroom to get critical citizens. On the other hand, the environment, in recent years, has become one of the most popular topics of study. Therefore, this research aims to shed light on the use of advertising for the teaching of environmental education in the context of Primary Education. For this, qualitative research has been carried out through participant observation and focus groups. The sample consists of five advertising spots related to environmental issues and 75 students of the Huerto-Alegre school farm in Granada, trying to clarify the level of knowledge that these students have about the object of study. The main results and

conclusions show that in spite of linking environmental problems with the spots viewed there is a discontinuity in the family and school contexts, even with the help of the mediator, emphasizing the need to reinforce the competencies in the formation and knowledge of students.

Keywords: Environmental education, advertising, educommunication, persuasion, minors, qualitative analysis.

Resumen

Los medios de comunicación y, sobre todo, la publicidad juegan un papel muy importante en la formación de la sociedad, especialmente, en el sector más joven. En este sentido, hay que reforzar los modelos pedagógicos en el aula para conseguir ciudadanos críticos. Por otro lado, el medio ambiente, en los últi-

mos tiempos, se ha convertido en uno de los temas más populares de estudio. Por lo tanto, la presente investigación pretende arrojar luz sobre el uso de la publicidad para la enseñanza de la educación ambiental en el contexto de la Educación Primaria. Para ello, se ha llevado a cabo una investigación cualitativa a través de la observación participante y grupos focales. La muestra compuesta por cinco spots publicitarios relacionados con temas medioambientales y 75 alumnos de la granja escuela Huerto-Alegre de Granada, trata de esclarecer el nivel de conocimiento que poseen estos estudiantes

1. Introduction and state of the art

The media have emerged as an essential persuasive instrument for social transformation. In this same line, the power of informative messages, manipulation and oversaturation of information is causing new phenomena that should be studied as priority elements and with the greatest rigor possible. At this point, advertising plays an influential role in the daily routine of people, who spend much of their time consuming increasingly personalized information provided by advertising brands, a fact that encourages the consumption of specific products.

On the other hand, the popularity of media topics such as climate change and the rise of environmental advertising is becoming increasingly hot. There are many challenges facing environmental education (EE). Among them, the implementation of an educational system that considers this subject as a priority subject and not as an objective inferred from other specific subjects such as Nature Sciences or Social Sciences. In this line, one of the fierce obstacles with which EE finds in schools is the difficulty of introducing educational programs, which promote student awareness and the identification of teaching content with their daily environment. The present exploratory study, aims to analyze environmental advertising and media competence, as an effective tool to reduce the discontinuity between the family and the school.

sobre el objeto de estudio. Los principales resultados y conclusiones demuestran que a pesar de vincular problemas medio ambientales con los spots visionados existe una discontinuidad en los contextos familiar y escolar; incluso con ayuda del mediador; incidiendo en la necesidad de reforzar las competencias en la formación y conocimiento del alumnado.

Descriptor: Educación ambiental, publicidad, educomunicación, persuasión, menores, análisis cualitativo.

We must emphasize the impact of this type of topic, especially in educational terms. In this way, it is necessary to refer to the postulates of the international document “Earth Charter” on the scope and reach of the media. In article 13.a., the need of society to receive information on environmental matters, as well as development plans, is pointed out. On the other hand, article 14.c. highlights the importance of reinforcing the role of mass media as social mediators on current ecological challenges. In conclusion, it is important to educomunicatively empower minors in order to develop a correct critical attitude towards the media. In this way, one can check and work the different educational possibilities of the existing ads linked to the EE.

2. Perspectives of Environmental Education (EE)

Concern about the environment is a growing trend. In this sense, multiple authors highlight those problems that differentiate the physical-environmental aspects (climate change, desertification and deforestation, soil erosion, the increase of carbon dioxide, changes in the water cycle, air pollution, etc.), of socio-environmental issues such as overpopulation, poverty of the Third World, the economy and the environment, the problem of energy, etc. (Morales-Hernández, Caurín-Alonso, & Souto-González, 2015, Castillo-González, 2018).



The concept of environment covers unimaginable limits, since it has an external dimension to the subject itself and in the same way, it comprises everything that surrounds it: biotic and abiotic factors (air, water, animals, human beings, soil, etc.), artificial elements (technological devices, chemical products, cities, etc.) or socio-cultural elements (language, habits, traditions, values, etc.) and the human being's relationships with these elements (Giordan, & Souchon, 1999). Therefore, the concept can be understood as "a whole where everything natural and human interrelates and interacts" (Jiménez, Yebra, & Guerrero, 2015). As a result of these assessments, it is necessary to establish and understand the theoretical bases of Environmental Education (EE).

In this sense, at the International Congress of Education and Training on the Environment of Moscow, held in 1987, this concept was defined for the first time.

Permanent process in which individuals and communities become aware of their environment and learn the knowledge, values, skills, experience and also the determination that enables them to act, individually and collectively, in the resolution of environmental problems present and futures. (UNESCO-UNEP, 1987, p.3)

It should be noted that Environmental Education develops pro-environmental attitudes to current environmental problems and challenges (Marcote, & Suárez, 2005, Castillo, 2010). According to Beck (2004) an effective EE will be the result of redirecting all the environmental degradations (greenhouse effect, acid rain, destruction of the ozone layer, use of pesticides, radiation, loss of virgin land, soil erosion, demand for air and water and the production and management of waste, among others) in all their dimensions and interrelations. However, it is necessary to understand that not all social groups perceive environmental problems in the same way, so we have to look for and propose

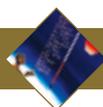
different alternatives to solve these problems. Therefore, facing this outlook, environmental educators and teachers play an essential role since they are the ones who should help the multiple subjects to analyze the information, make good judgments and motivate them to participate actively in society. Likewise, they must develop and implement pedagogical programs to work on skills and convert information into meaningful practice (Flor, 2005, Torres-Rivera, Messina-Calderón, Salamanca-Salazar, & Sepúlveda-Sepúlveda, 2016, Páramo, 2017).

3. The school and EE. Critical thinking and media education

Since the UNESCO proposals in 1977 on EE in schools through the progressive reform of study programs, there have been many difficulties. The treatment of information is only done from a long maturation process and from a fragmentary perspective that has little to do with the environment of the students and that contrasts two types of culture: the superficial (disclosed by the media) and the school (within disciplinary programs without any relation to reality (Department of Science, Technical and Environmental Education, 1997).

According to Sánchez and Sandoval (2012), the school must promote media education in formal and informal contexts. In this sense, it is necessary to include families in working on advertising messages and their communication dynamics. This element is fundamental to reduce the dissonance in the teaching-learning processes and to enable the students to discern the audiovisual contents, thus obtaining an autonomous student body with their own criteria.

According to Novo (2010), the basic principles of EE can be divided into two levels. On the one hand, the ethical level, where the positions of man in relation to the environment will be reviewed. At this point, Stapp (1978) points out that effective ways should be established as a means of approaching the nodal axes of environ-



mental behavior. There must be a link between what is done (practice) and what we feel doing it (affection). In this way, values are inculcated and assimilated, which will modify the student's relationship with the environment. On the other hand, it is necessary to attend to the conceptual level, where the global concept model of the environment is studied and the natural and socio-cultural aspects are interrelated. Likewise, the relationships and social implications of energy concepts and their possible uses for the development of a better quality of life are considered.

Therefore, it is necessary to highlight the complexity presented by reality, supported by the EE, since it is necessary to involve multiple components for it to be effective. Likewise, emotions will play a very important role in their growth, allowing the prediction of attitudes towards the environment and how to work with it (Pooley, & O'Connor, 2000; Collado-Ruano, 2016). For this reason, it is necessary to present the innate characteristics of the object of study in order to make a better contextualization on the subject: practicality, education promotes values and positive behaviors towards the environment; morality, it is a permanent process in which society is aware of the studied scenario; cognitive globality, clarifies and harmonizes the concerns and values (ethical, aesthetic or economic) of each of the individuals and societies in relation to their perception of the environment; utility, seeks the practical resolution of problems that affect the environment and the human being; constant actualization, the EE needs to be in constant readjustment in face of the multiple existing environmental problems; and humanizing, human rights and universal values, applying these principles will achieve peace on Earth, as well as the implementation of harmony with the physical-natural environment (NAAEE, 2000, Riera, Sansevero, & Lúquez, 2017).

In short, we must pay attention to the knowledge that is being developed in environmental matters, establishing a process of permanent learning, facing society with the

environmental problems that challenge us and considering emotions as the central axis of Environmental Education, highlighting the need, by individuals, to own their own value system (Pérez, & Rojas, 2016).

4. Media, advertising and EE

According to Aznar-Minguet and Ull-Solis (2009) the new citizen needs a comprehensive education to be competent. The concept of competence is known as the set of knowledge, skills, abilities and attitudes required in each one of the personal circumstances (Geli et al., 2004, Orden-Hoz, 2011, Scolari, 2018). In this way, the formation of these subjects committed to the environment, requires a variation in interpretive models based on the relationship between the human being, the natural environment and the socio-cultural environment.

Undoubtedly, in the face of the popularity of environmental issues, the influence of the media, as well as the oversaturation of messages, have alarmingly proliferated. This explosion of information dates from the mid-70s in the United States, subsequently installed in the European continent. In Spain it can be highlighted that, in the year 2000, there were already a total of 200 professionals specializing in environmental information, appearing on the same date the Association of Journalists of Environmental Information (APIA). In this sense, although the prevailing role of this type of news in the media has already been exposed, it is important to emphasize studies related to advertising as an object of study. The first studies carried out in Spain relating advertising and the environment were carried out by the *Globalízate* Association in 2005. These studies analyzed the offer and presentation of environmental issues through advertising spots such as car spots, air pollution and energy savings, among others. In order to study this type of spots, the Association indicated a series of criteria to be able to adequately evaluate the messages. On the one hand,



positive, the receiver is informed about the emission that occurs, the types and quantities that are generated, among other important aspects about pollution. On the other hand, indifferent, some content is reported through the fine print. Finally, negative, in this type of content there is a promotion of harmful attitudes towards the preservation of the environment (Camana, & Almeida, 2017, Mendoza, 2018).

According to Díez (1998), “if advertising is analyzed, it is shown that it is directed, in most cases, more to our emotions than to provide us with information”. The use of this strategy is key in advertising since both the memory of the brand and the message that is transmitted is associated, remembered and better identified through emotional attachments (Baraybar-Fernández et al., 2017).

Therefore, faced with this presented context, it is necessary to work and reinforce media literacy, as well as the development of a correct critical attitude. This takes an essential role since 2008 due to the intervention of the European Parliament, defining it as the aptitude to understand and evaluate the multiple characteristics of the media (Sánchez, & Sandoval, 2012; López, & Aguaded, 2015).

According to Ruiz and Conde (2002), advertising should not be the mirror of an irresponsible reality with our environment being collected through regulatory laws, which are still not carried out.

Currently, the media landscape in environmental issues is discouraging, as there is a lack of professionalism in the sector and also a lack of interest on the part of advertisers (Delmas, & Cuerel-Burbano, 2011). Raising awareness among the population in order to reduce the current environmental deterioration should be the central axis of environmental advertising. However, it is still a utopia, since what is generated is scarce, marginalized, politicized and with catastrophic tints. Given this, it is palpable that environmental issues are always left out of all the news, except for major natural disasters.

However, there is environmental content in the commercial programming of television, which is cultivating attitudes of an environmental nature.

In short, environmental advertising requires specific needs related to the establishment of a critical literacy on the subject, help the citizen to know and preserve natural values, as well as the need to know the mechanisms of action when facing advertising (Saber, 2017).

5. Materials and methods

The development of environmental competence envisages multiple teaching-learning approaches and methodologies. The possibility of using advertising as a tool for learning and supporting environmental education may represent the possibility of unifying the current discontinuity produced between the student’s environment and school education.

The objective of this research is to shed light on the use of this tool for the teaching environmental education in the context of Primary Education. The media competences of the students will be analyzed while facing environmental advertising and their perception on the link with the environment. To this end, an environmental educator specializing in communication participated, acting as a mediator between the superficial information presented and the educational contents.

The presented study has been developed with qualitative methodology, to make a deep analysis of the subjective perception of the sample regarding the object of study. The techniques used for the development of this article were: observation for the first phase, and focus group and semi-structured interviews (under the informed consent of the legal tutors), for the second phase, prior to the analysis of the information.

The research has been divided into three phases: selection of advertising spots, preparation of the interview script and start-up of the focus group.



Phase I. Spots selection: An exhaustive review of the advertisements broadcasted on television during 2007-2015 was conducted, resulting in 27 selected spots. The selection of this period of analysis responds to the possibility that during their life they have been able to watch them in different media. Through the technique of observation and applying the following criteria of inclusion: environmental theme, familiarity for students, duration (less than three minutes to avoid loss of attention) and the relationship of the company that advertises with the environment; 5 spots were finally selected to carry out the discussion group: Greenpeace 2010 and 2014, Coca-Cola 2011 and 2012, and Iberdrola 2014.

It is important to emphasize the role played by the environment in the spot, the positive and negative environmental actions removed from the advertising message, and finally, the purpose of the spot or purpose of the message to be transmitted.

Phase II. Preparation of the interview script. In this second phase, a battery of open questions was developed to respond to the objectives of the study. After several filters, the researchers agreed on those that would correspond to the categories of analysis of the subsequent information, leaving open the possibility of including others that arose during the development process of the discussion groups and that could be of interest for the study.

Phase III. Selection of the sample and development of the focal group. The selection of the sample was intentional, and was composed of a total of 75 Primary Education students, who participated in an educational-environmental stay offered by the Huerto-Alegre school farm in Granada. The ages of the subjects were between 8 and 12 years old, and belonged to three different educational centers of different provinces (Béjar-Almería, Granada and Alhaurín de la Torre-Málaga).

Five focus groups were conducted with 15 students in each, distributed by age ranges (8, 9,

10, 11, 12). In each group was present a researcher and the mediator in environmental education.

The start-up of the activity consisted in that the students watching the Spot and the subsequent development of the discussion following the semi-structured script.

6. Analysis and results

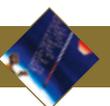
The information extracted from the discussion groups was divided by spots and was structured in four categories: the role played by the environment in the spot, the positive environmental actions taken from the advertising message, the negative environmental actions taken from the advertising message and, last, the purpose of the spot or purpose of the message to be transmitted. The analysis was carried out by two researchers in a parallel through the qualitative program Mxqda to guarantee the validity of the study.

Greenpeace-Lego

Examining the first visualized spot “Lego and the oil company Shell”, the following results can be highlighted. Regarding the role played by the environment, students point to “oil” as the concept most related to this topic of study. In addition, they insist on the great aggression that the environment suffers with the extraction of this type of fuel. This vision of the context, in general, is focused on the natural environment. However, some students point out that, in the same way, the social environment is important regarding this problem.

In relation to the portrayed actions that respect the environment, the students have not been able to identify the existing pro-environmental actions in the spot, nor relate them to their daily life. On the other hand, most students have stated, however, that the actions of human beings can help or harm the environment.

In relation to the question of what actions have been made visible that harm the environment, most students have treated the extrac-



tion of oil as a negative action. In this way, they highlight that it produces as much damage in the natural environment as in the social one. Undoubtedly, this nuance offered by the subjects shows an important fact since they recognize that people are responsible for carrying out these actions and responsible for them.

In the same line of study and attending to the reflection on the message of the spot, as the main objective, the students have indicated that they expected that this advertising message will help to take care of the natural environment. A small part of the sample has also cared for the social environment. However, only one student has detected the true end of the spot: to boycott of the LEGO company due to its relationship with the oil company Shell. In this way, it is evident that the students have not understood the true message.

The second spot reviewed was "Greenpeace: Oceans". Therefore, compared to the role played by the environment, it can be noted that many of the responses have tended to interpret the flooding of certain spaces as something bad for the natural environment, when it is something totally natural. With this curiosity, multiple students tried to propose actions to take care of the environment. In this sense, first of all, in relation to pro-environmental actions, they agreed that there is a need to take care of the natural environment in order to improve the health of society. On the other hand, the negative actions that most impressed the minors are the ones caused by the increase of the tides, not verifying the fact that these are natural. In addition, we must emphasize the implication and security that they show in relation to water quality and the thawing of the poles. Finally, around the reflection and message conveyed by the spot, the all students understood, as the main message, to take care of the natural environment.

Coca-Cola

The third advertisement shown was "Coca-Cola: Reasons to believe". Therefore, considering the role played by the environment in the content, the minors indicated that the images showed a well-cared for environment, although there were some that have pointed out its deterioration. The vision that has predominated has been that of the natural environment, however, for some students, it was related to the social environment.

In reference to the actions proposed and that respect the environment, the pro-environmental attitudes offered by the students have been related to the rules agreed upon in the presentation of the students' day during their stay at the school farm and not with what was shown in the spot. In this way, it can be highlighted that, for this item, when analyzing and obtaining answers, no relationship has been found between superficial and school information.

According to the actions related to damage to the environment, the minors have identified wars and the actions derived from them, such as the creation of weapons or the launching of missiles. Likewise, other harmful habits have also been noted, such as throwing garbage on the ground.

Finally, regarding the question related to the message of the spot, the results have been conclusive, since the students themselves have detected that the main purpose of the spot is the consumption of Coca-Cola.

Fourth, the spot "World Peace Day: Coca-Cola" was analyzed. Concerning the role played by the environment, the minors related it to the natural environment, relegating the social and cultural environment to a secondary consideration. Also, they found controversies surrounding the care of the environment, as some claim it to be contaminated and others did not.

Regarding the actions to respect the environment, the fact that most of the students have not noticed any action is of concern. In addition, some students associate pro-environmental



actions with the rules imposed in the school farm, as in the previous spot. Similarly, they point out that those harmful actions are the circulation of vehicles, as well as painting graffiti on buildings. These responses are remarkable, since they are damages that originate and mainly affect the social and cultural environment. Finally, in the question of reflection on the end of the spot, the students have indicated that the objective of the spot is the consumption of brand, although they also realize the possibility of helping and taking care of others.

Iberdrola

We finish with the fifth analyzed spot: "Iberdrola Today". On the one hand, concerning the role of the environment, it should be noted that this spot is one of the most challenging for students, due to its theme and by its informative discourse. Therefore, the answers obtained show that the students have only taken the interpretation of the natural environment, although references to the social environment are made through the appearance of construction ideas.

Regarding the actions that favor and respect the environment can be highlighted the use of renewable energy. They also emphasize the company's environmental policy. This idea is presented in the spot. However, the minors do not understand what the concept means and what it consists of. On the other hand, in the unfavorable actions, the answers have not been satisfactory, since the students have not interpreted the actions harmful to the environment, but they have mentioned all those they knew about their daily life and, in some cases, tried relate them to the spot.

Finally, about the purpose of the spot, there are students who have understood that the message is the hiring of Iberdrola's services, while others point out that it is about taking care of the environment by changing our ways.

To conclude with this section, we can highlight as multiple the appreciations and interpre-

tations of the subjects in relation to the watching of the spots. In this way, we can appreciate the need to provide environmental and media education to the students, due to the influence of the vast amount of information offered through the media.

6. Discussion and conclusions

The media is a tool of massive influence on the critical attitude of the spectators. In this sense, advertising becomes the best option to mediate positively or negatively in the construction of the ideals of society. As a result of this, the need to educate children in media to ed-communicatively empower them so they can be capable to interpret and reflect on the information oversaturation. Faced with this, the news and messages related to the environment have become very popular, as well as Environmental Education. Therefore, the present study has tried to verify the validity of advertising, which is shown through television as a resource within this theme of Environmental Education.

It should be noted that, after carrying out the relevant analyzes, the desired results have not been achieved, in the sense that the students have not been able to correctly relate the concept of the environment in the viewed spots. Also, we can highlight the discontinuity between family and school in the sense that the training or knowledge acquired in different contexts are not developing in parallel. In the same way, they have not been able to relate school contents, even when the mediator is present during the test. In this way, it is necessary to encourage and work on this type of competences in Primary Education. Similarly, there is an urgency to establish correct pedagogical models to help solve these gaps in the classroom. Also, to be able to work with this type of resources it is necessary to develop a correct media literacy among the students, regarding advertising, in order to be able to analyze correctly and critically an advertising spot and



decipher the implicit messages of this type of informative transmission.

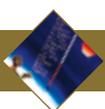
Raising this media and advertising literacy is a major challenge, since unfortunately it does not have a space within formal education. On the contrary, educators must work in a context of non-formal education, where at the same time, multiple subjects are developed and compete with Environmental Education.

Without a doubt, it is important to educate for a sustainable consumption through advertising. In addition, this reality is currently in an experimental phase. However, we must continue to bet and work on the concepts and terms linked to the study for greater understanding. For example, during this research it was possible to verify that the students identify the environment with the natural environment, excluding the social environment, the cultural environment and the multiple existing relationships, as well as the role of man and his actions. If this type of vision is not established, it will be difficult to pay attention to how the human being should change his relationship with the environment.

On the other hand, in relation to the results obtained after viewing the spots, it can be highlighted that caring for the environment is one of the most reiterative responses. In addition, in all those ads in which the activity was developed within an urban environment, the students related the pro-environmental attitudes with the cleanliness of the place. Also, we can emphasize some pro-environmental attitudes related to the non-existence of war or any type of violence. Undoubtedly, the subjects have pointed out different positive and negative actions around the environment, noting the repercussion of the daily actions of the human being. This type of answers and data confirm that, despite the current inefficiency of advertising as a resource in Environmental Education, this experience has served to reflect on the object of study.

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