



Environmental education in the television media. Case study: Oromar TV

La educación ambiental en los medios televisivos. Estudio de caso: Oromar TV

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Abstract

The current research article has the purpose of analyzing environmental education in television media in the province of Manabí. For which, it was decided to take the Oromar TV channel as a case study. This with the objective of measuring the social impact caused by the mass media in regard to the awareness and care of the environment in this province. In addition to examining the production of training content focused on environmental education within the programming of this channel. The methodology that was applied for the investigation is of qualitative type, so that the technique of documentary analysis was used for the revision of the programming of the Oromar TV channel, this was carried out in a sample period of two months. The results obtained show that there are shortcomings in the programming of the Oromar TV channel, due to the scarce productions of educational content. Therefore, it is concluded that, in the absence of an increase in training television programs, and total absence of specialized productions in the area of environmental education in the Oromar TV channel, that could cause a lack of knowledge in the television audience in regard to in matters of prevention and care of the environment in the province of Manabí.

Keywords: Environmental education, educommunication, mass media, media research, journalism, TV.

Resumen

El actual artículo de investigación tiene el propósito de analizar la educación ambiental en los medios televisivos de la provincia de Manabí. Para lo cual, se decidió tomar como estudio de caso el canal Oromar TV. Esto con el objetivo de medir el impacto social que provocan los medios masivos en lo que concierne a la concientización y cuidado del medio ambiente en esta provincia. Además de examinar las producciones de contenidos formativos enfocados hacia la educación ambiental dentro de la programación de este canal. La metodología que se aplicó para la indagación es de tipo cualitativa, de modo que se utilizó la técnica del análisis documental para la revisión de la programación del canal Oromar TV, esto se llevó a cabo en un periodo de muestra de dos meses. Los resultados obtenidos demuestran que existen falencias dentro de la programación del canal Oromar TV, debido a las escasas producciones de contenido educativo. Por lo tanto, se concluye que, al no existir un incremento de programas televisivos formativos, y ausencia total de producciones especializadas en el área de educación ambiental en el canal Oromar TV, eso podría ocasionar un desconocimiento en la audiencia televisiva en lo que se refiere a materia de prevención y cuidado del medio ambiente en la provincia de Manabí.

Descriptorios: Educación ambiental, educomunicación, medios de comunicación, investigación de medios, periodismo, televisión.

1. Introduction

Environmental education throughout history has been the mechanism to promote environmental care in the population, however, pollution problems have still persisted in many places around the world. This is largely due to the lack of knowledge and disinterest that exists about values and environmental ethics, which results in few ecological habits in a changing society.

Pollution has become a problem for humanity today, and the best way to control it is by teaching environmental values and practices. Chagollán *et al.* (2006) states: “The objectives of Environmental Education include changing attitudes and values; i.e., to assist society and the individuals to acquire environmental values” (p. 150).

However, environmental education faces challenges that limit its total development in the communication field, this is due to the public agenda managed by the mass media. Meyer (2009) notes: “the media decides which topics to exclude or include in the agenda to eliminate or incentivize their public debate” (p. 18). The public agenda of the media is shaped on the basis of its own interests, which can become economic, political and ideological. Sometimes information related to environmental issues is removed from the public agenda, as it may affect the interests of the environment. León (2014) states: “The media pays little attention to the environment in general and to climate change. Coverage varies greatly depending on current issues”.

As for the work of environmental awareness in Manabí, the picture is not very different from other places in the world, the interests of the media are reflected in the programming they broadcast to their audience, which somehow could be affecting the production of educational content dedicated to it.

Educational programs in the media have the role of transforming society through the dissemination of knowledge. According to The United Nations Children’s Fund of Argentina (UNICEF, 2013):

In a world where new generations are born in a media culture, media education from a social and educational perspective appears as a critical point in thinking about the relationship between socialization and training of children and young people and the appropriation of different languages and forms of transmission and appropriation of knowledge (p. 19)

Therefore, this article considers the case of Oromar TV media, with the intention of measuring the social impact generated by mass media in terms of environmental awareness and care in the province of Manabí, as well as examining the existence or lack of productions of educational content in the programming of the Oromar TV channel.

2. Methodology

In this research, a qualitative methodology was carried out, which allowed to thoroughly analyze environmental education in Oromar TV, located in Manta, province of Manabí. It was necessary to use methods such as: Abstraction, which allowed to discover the different conceptual elements linked between environmental education and the media on a theoretical level. On the other hand, the method of concreteness was important in synthesizing the different concepts that originated a theory of its own and that was used to argue the case study.

The technique used during the inquiry was the documentary analysis. For this reason, magnetic-type documentary sources (Recordings of the Oromar TV channel) were used. For this study, it was considered to observe only the contents classified as educational and cultural. Also, a sample review period was chosen, which began from November 1 to December 31, 2016, this because the channel changes constantly programs. After this process, the data was analyzed for display in the form of graphs that led to the evidence of conclusive results of the case.



3. Results and discussion

3.1. The importance of environmental education

Environmental protection at the educational level has been present since the United Nations promoted the International Conference on the Human Environment in 1971, which gave rise to the publication of the 1972 general report entitled: *One Earth. The care and conservation of a small planet*. This would be the main aspect for countries to start promoting environmental education in education institutes.

Currently environmental education is in the subjects of study of educational institutions, since its relevance in the academic training of students is essential so that they can know and progressively transform the environment. Leandro (2012) states:

Environmental education is an educational process during which the individual and general and/or specific communities assimilate concepts and create a system of values through which capacities and behaviors are developed in their relationship with the world, organisms, ecosystems, and social groups as a whole, which allow them to prosecute the interactions between the human environment (...) and the biophysical environment. (p. 38)

At the social level, the success of environmental education is reflected in the most common acts of the human being, which is paramount when determining the behavior of a civilization that is in search of responsible sustainability for the environment. Toro and Lowy (2005) say:

The perception of the environment is, in short, the reference that guides actions in all areas of human culture, and of course, in education; it is there where the obstacle to environmental education in certain scenarios may be at issue, which has achieved very little and does not achieve the expected end. (p. 31).

In the context of Manabí, environmental education appears to have failed to achieve the essential goals to maintain reasonable responsibility for the environment, as in several previous studies it has been demonstrated the existence of certain inconveniences of pollution in different areas of Manabí. Starting from the pollution of the beaches and rivers of the parishes such as Manta, Jaramijó and Puerto López, which are seriously affected due to the mouths of wastewater and waste that end directly in the ocean. This is evident in an investigation conducted in Tarqui Beach, located in the canton of Manta.

The results show that the beach is contaminated in both its chemical and microbiological characteristics. This beach should not be considered suitable for recreational purposes, as it exceeds the maximum pollution limits permissible in the Ecuadorian environmental legislation (González & González, 2016, p. 52).

On the other hand, the jaramijó parish demonstrates the problem of river pollution because of the limited ecological culture on the care of water sources. "The lack of awareness of the inhabitants is the main polluting factor when throwing solid waste, in addition to the clandestine home connections that exist and that discharge directly to the Jaramijó River" (Tarco & Menéndez, 2014, p. 95). However, in Puerto López the need for increased training in beach maintenance becomes crucial to solve the problem of marine waste. "There was interest of the inhabitants in learning how the beaches in Salagon parish should be kept clean" (Suárez, 2008, p. 9).

As far as air pollution is concerned, Montecristi parish is often constantly affected by factory settlements in the peripheral areas of the cantonal head. Briones and Morán (2010) indicate:

The environment surrounding the Schools 'Filomena Chávez de Duque' and 'Father Gabriel León', is different because the former has problems of air pollution, as a result of the bad smells emanating the factories, (...). In contrast, the second has very few pollution problems to be located in the downtown of Manta. (p. 96)



Even the management of computer waste is becoming an environmental problem that is detrimental to the health of the inhabitants of Chone parish. Alcívar and Zambrano (2015) determine: “There is little awareness within public institutions and even the general public of the damage that computer waste can cause within the environment and the human health” (p. 101).

It is also important to emphasize the impact that is occurring on the natural ecosystem of the sectors surrounding Portoviejo parish. Intriago (2012) states: “In Colón parish, the main cause of the extinction of native species is due to environmental pollution that has become worse in recent years as a result of human activities” (p. 49).

Finally, the lack of awareness about the prevention and care of the environment of the cities is becoming a decisive factor in the economy of cities like Manta, as the problem of pollution is affecting the tourism activity. Franco and Vélez (2004) say: “The state of environmental pollution is clearly noticeable to those who visit the city causing an unattractive image, which negatively influences the economic growth of tourist activity” (p. 227).

On the other hand, it should be added that the proliferation of stray animals is a somewhat isolated element to the issue, but that in turn it is an incident factor in the pollution of the cities. A research conducted in 2016 on an analysis surrounding campaigns to reduce the overpopulation of stray animals in the city of Manta shows that there is a connection between pollution of cities and stray animals.

It is clear that this problem will become dangerous for all inhabitants over time, which will end up causing traffic accidents, diseases, pollution of the cities, cruelty and death of living beings. (Cumba, 2016, p. 79)

All these investigations reach similar conclusions, which show the lack of awareness of the environment care. In addition, the consequences of environmental damage by the inhabitants and

rulers of each of the parishes are observed. The low interest given to ecology issues in certain governmental institutions can become a decisive factor, which can affect citizens’ behavior in terms of environmental responsibility. Loor (2012) states:

In Portoviejo, the lack of dissemination and little interest in environmental education issues prevents an authentic commitment for people to feel committed to caring for the environment around them, resulting in polluting behavior by accelerating levels of pollution in the environment of the Pro Improvement Committee 22. (p. 48)

3.2. Environmental education in the media

The media throughout history has had the important function of informing, training, generating opinion and entertaining. Today, this fundamental role played by the media in society is becoming a decisive factor in environmental education, as education is the basis for building the foundations of a progressive society. According to Alcántara, the function of education is to obtain personal achievements involved in it, while seeking improvement and social transformation through greater commitment of people to their environment (Alcántara, 2009).

Journalists and communicators in general have the complex task of informing and training the public who see and listen to them daily with information from reliable sources that are useful for finding solutions and answers to the various problems arisen in the society. Gómez and Patiño (2015) claim:

The media not only generates harmful and perverse effects, but it has invaluable value applied to the field of education, not only on the instrumental aspect but beyond: the axiom that generating active emitters contributes to creating critical receivers would be fulfilled. (p. 128)

It is for this reason that journalists must have a multidisciplinary training, which allows them to disseminate information to the public.



When it comes to environmental education, journalists and communicators have developed a new type of journalism over the years, which is known as environmental journalism, in which journalists seek to focus on environmental issues such as climate change, pollution, environmental protection and the dissemination of ecology news. It is important to mention that this type of journalism not only seeks to inform environmental issues, but also it trains the public with positive behaviors in the care of the environment, in a simple language that can be understood by the different people according to their local contexts. Reyes and Chávez (2013) point out: “Environmental journalism helps to form environmental or planetary citizens, often without being too aware of it” (p. 136).

Environmental journalism may be the new way of implementing environmental education in the media, but there is one drawback that is preventing environmental education from reaching media agendas, which is known as “silencing uncomfortable truths.” This is largely due to the factual powers affecting the global media and the political world, since most of those that contribute to pollution and generate climate change are the big corporations that are linked to fossil fuels, and which hope of mastering the media agenda of the different massive media when coverage of global climate change summits is made. Lemos (1991) states: “Although the media tends to correspond to collective interests, they seek to structure reality without affecting the interests of the dominant groups” (p. 17).

The configuration of the media public agenda has become an obstacle to environmental education being an integrated part of the communication processes. Rodríguez (2004) argues: “Agenda-setting function, one of the most representative current theories of the media. It explores how the media influences audiences through topics considered to be of greater relevance” (p.15). This means that any news event related to an environmental conflict with any of the corporations that the media maintains trade

deals, vanishes within the public agenda of the medium so as not to affect their economic interests. Berger and Luckmann (1997) say:

It is clear that mass media are explicitly used by moral entrepreneurs of different categories for their own purposes, as well as by the State, the church, charitable associations, as representatives of community’s opinion. (p. 123)

The power that the agenda has to set in public opinion is able to shape the thoughts of a society, over the years the public agenda has evolved into a more complex concept known as news frames, where the different news begins to have an order in order to modify and direct the audience to a perspective created by the media.

The media has demonstrated the use of the public agenda in the various news events surrounding the problem of climate change. De Rueda (2014) states:

In an environmental issue at first it activates, and subsequently it interests the public, for certain seasons it remains dormant, but it remains dormant until that action or decision appears —almost always political — and it exercises a triggering reaction that ignites the ‘informative boom.’ (p.151)

Depending on the configuration of the public media agenda, each media outlet may or may not play a key role in raising public awareness of certain environmental problems. In the case of global warming, mass media has covered news events only seasonally, which is contrary to educational environmental care programs that seek a constant flow of information to raise long-term awareness. Montero (2013) say:

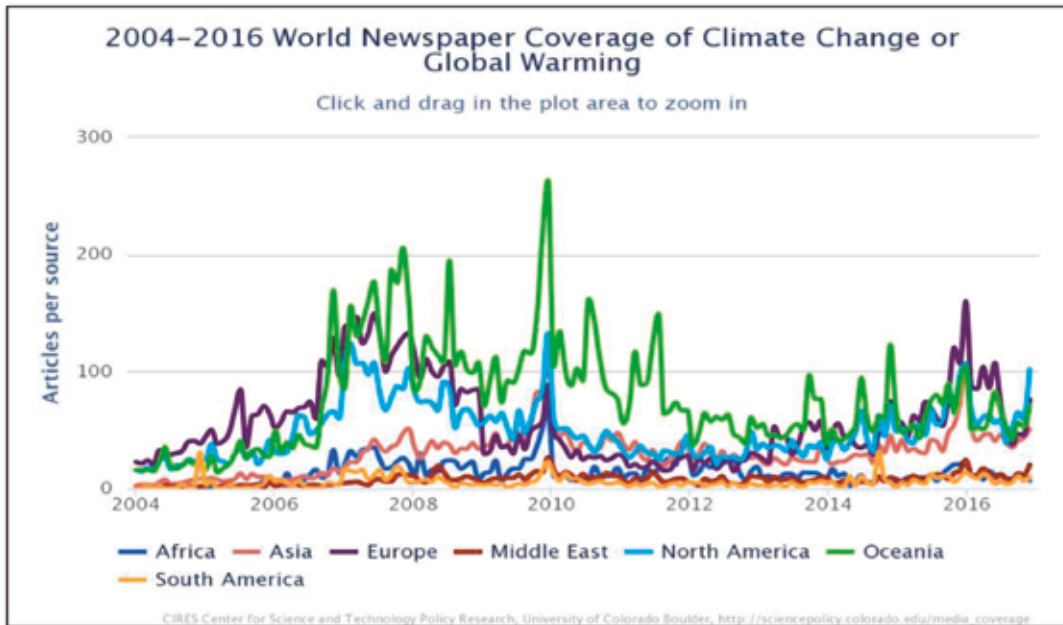
It is heartbreaking to see how the amount of information on climate change has barely evolved (saving those specific peaks) in the last decade, even though the problem, and its consequences, has continued to grow. (p. 147)



The downside of climate change over the years has become an issue that remains latent in the media agenda of some of the global media, the coverage they have provided over time varies

according to each region of the world. Figure 1 shows the peaks of coverage that the global written press has made from 2004 to 2016 on the climate change or global warming.

Figure 1. 2004-2016 Global newspaper coverage on climate change or global warming



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Apparently in South America the peaks of coverage are low, being almost similar to the Middle East and Africa, this compared to other regions of the world where they are consistently high. It appears that the media written in South America proves to have some carefreeness about environmental issues, which means that the public has no greater interest in learning about news related to climate change or global warming.

It is clear that the media in South America carry a dissolved media public agenda of environmental issues, resulting in a poor audience of environmental awareness. "The problems of the environment in the region cannot be addressed if there is no awareness of their impact on humanity" (Lemos, 1991, p. 21).

3.3. Environmental education in the Manabí media

The background in Ecuador regarding the media performance in training content programs demonstrates a daunting picture, either in the general educational field or in a specific subject. The Superintendency of Information and Communication (2015) states:

Unfortunately, there is no significant increase in any of the 4 surveys of information regarding the training content (...). They occupy, on average, 5% of the total content broadcasted on the television. This percentage is a long way from what should ideally be occupied by the training content, in a properly balanced programming, if considering that the constitutional and legal priorities for dissemination are:



information content, opinion content, formative content; and to which the market priority, which is the dissemination of entertainment content, is added. (p. 163)

In Manabí, the situation of environmental education in the media has a highly worrying outlook, due to the inconvenience of the low production of educational, educational and cultural content programs. Arrobo and Suing (2015) say:

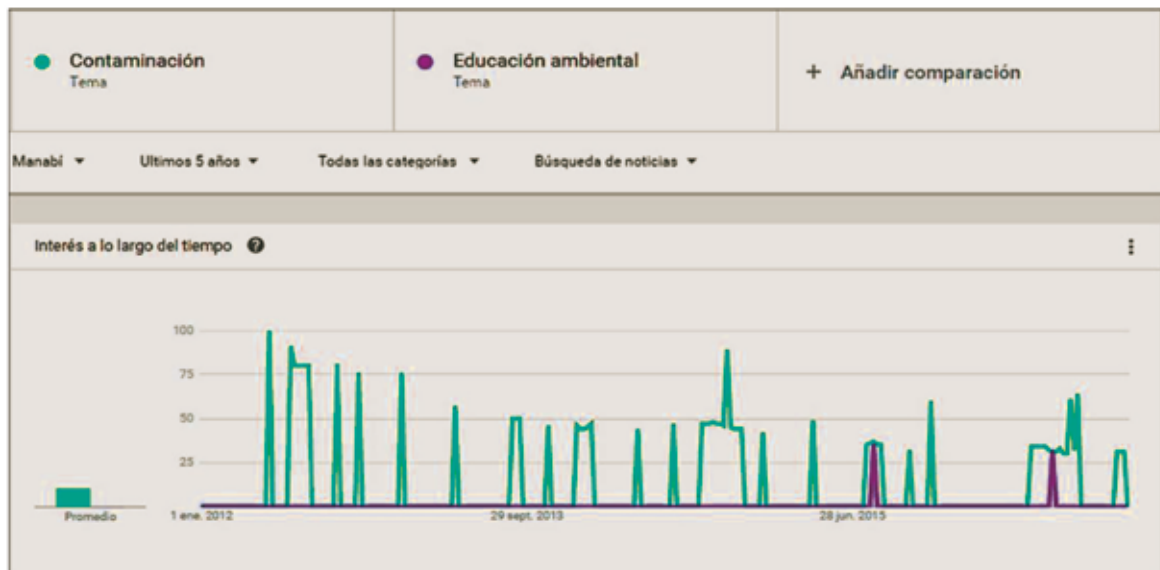
In January 2015, 40 training/educational/cultural programs were broadcasted on open-signal television stations in the mainland of Ecuador; 8 in ECTV; 5 in Ecuavisa; TC, RTS, UNO and ETV broadcast 4 each; Telemazonas, GAMA and UCSG 3 each; and, Oromar and RTU one each. (p. 3)

It is worth noting that Oromar is a television channel that has been transmitting for 6 years in the entire Ecuadorian territory, making it the communication media with greater scope and coverage in Manabí, since there are also other channels that have been transmitting for years, but only cover certain sectors of the province.

The low production of training content programs in Manabí affects environmental education by not having a space to create productions of educational content specialized in the prevention and care of the environment. On the other hand, there is the pollution factor that sticks out in the province, in which the media emphasizes sometimes and then it becomes silent again.

This silent mode that the media maintains on the environmental topic can be seen in the public interest in the comparative trend between pollution and environmental education, this in the span of the last 5 years in the province of Manabí, as shown in Figure 2. The data was managed by the Google Trends web application, based on the search analysis of Google News headlines who have trended in public opinion on the network. The Google Trends tool is recognized from the field of research, as a solid and valid indicator for tracking the occurrence frequencies of certain terms that could hypothetically function as catalysts of interest in the public opinion (Reyes *et al.*, 2015).

Figure 2. Comparative trend analysis between pollution and environmental education, 2012-2016.



Made with the Google Trends 2016 tool.



The results show that pollution in Manabí shows peaks in the public opinion over time; however, environmental education remains in a constant low, only rising in mid-2015 and early 2016, being a clear indicator that the configuration of the public agenda of the media in Manabí is limited to temporarily covering the news events related to controversial pollution cases in the public opinion, but there is very little interest when it comes to environmental education on the part of the media in disseminating training content that prevents the problem, this could trigger a lack of knowledge in the audience in a long time about how to prevent and care for the environment. Perales and García (1999) argue:

The news and information generated is due to the same limitations as most journalism practiced in the media, such as giving priority to the most striking events, as a side of (...), to educational journalism. (p. 151)

3.3.1. Analysis of the television programming of Oromar TV Channel

Oromar TV channel started to broadcast on November 1, 2010 in Manta, and it has covered the entire national territory, it is also the first channel of Ecuador to broadcast in High Definition, trait that has allowed the channel to gain viewers. For the current research article, the contents of the channel schedule were classified as shown in Table 1.

Table 1. Oromar TV programming

Content Rating					
Information	Opinion	Educational and Cultural	Entertainment	Sports	Advertising
NTI News (Morning Broadcast)	Between Lines	Student SOS	International Video Control	Sports Stop	What's TV News
NTI News (Night Broadcast)		Ecuador Multicolor (Channel Association)	Records	Ecuadorian Serie A Football Championship	MWW
Together by Manabí		Educa Tv (Government program)	The Flintstones	Ecuadorian Football Championship Series B	Telemark
Portoviejo Is Born of You		Express (Government Chain)	Looney Tunes	Zero Latitude	Mother Jungle
			The Looney Tunes Show		
			The Coyote and the Road Runner		
			Tom and Jerry		
			Bonanza		
			The Chaparral		
			Walker, Texas Ranger		
			Sea of Laughter		
			Men prefer stupid women		



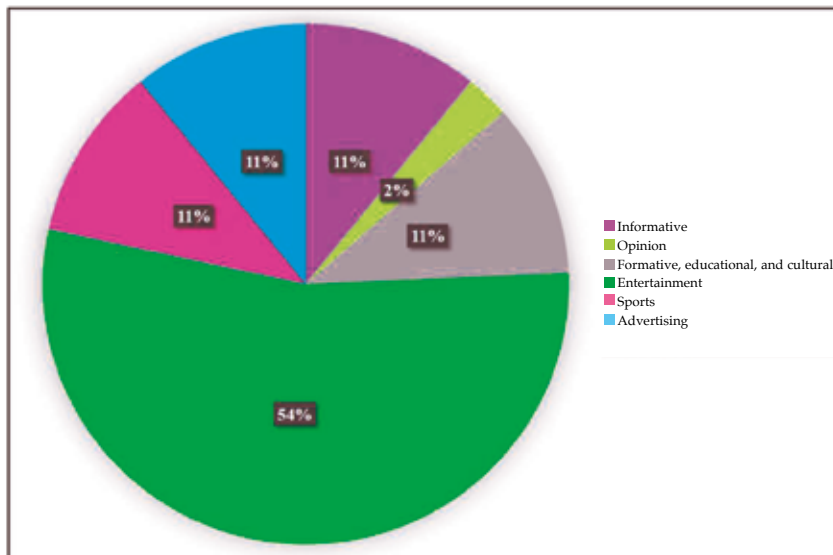
Content Rating					
Information	Opinion	Educational and Cultural	Entertainment	Sports	Advertising
			Young wife		
			Everyone wants with Marilyn		
			Abigail		
			The Flying nun		
			Zorro		
			The Three Stogees		
			The Wild, Wild West		
			Dr Quinn		

Own elaboration. Based on the information obtained from the official website of Oromar TV channel. Available at: <http://oromartv.com/> (visited on December 30, 2016).

Within the review of the programming the first thing observed is that Oromar TV complies with Article 60 of the Organic Communication Law [1], by putting in each of its programs the identification of the content and its classification. But there is an unbalance in terms of the

number of productions of the same type, which were broadcasted in the sample period of observation as explained in Figure 3, this imbalance can be counterproductive to the channel's television broadcast.

Figure 3. Balance of Oromar TV programming



Own elaboration.



It can be seen that 54% of the channel's programming is entertainment content type, followed by 11% of formative, educational and cultural programs. Another 11% corresponds to advertising ads, with equal percentage of the informative and sports, finally a remaining 2% of opinion. It is worth mentioning that were taken into account the productions of the government network and associations of television channels for the analysis of the programming balance, which are broadcasted by legal provisions. Since the channel's only own-initiative educational production is SOS Student, which broadcasts twice a week, where each episode addresses a given pedagogical topic in approximately 20 minutes.

This type of programming is contrary to what is established by the Organic Law on Communication (LOC) in Article 8, referring to the prevalence in the dissemination of content of an informative, educational and cultural nature, in a predominant way [2]. Since Oromar TV channel has few informative productions (11%), educational and cultural (11%), making a total of 22%, it does not accomplish to what the law indicates. In this sense, the LOC is clear in mentioning that informational, educational and cultural content has to predominate on the media, i.e., in order to carry out compliance with Article 8, it is necessary that more than 50% of the programming is contained in this type of classification.

The imbalance of programming and non-compliance with Article 8 of the Organic Law of Communication is not an exclusive situation presented only in Oromar TV channel, but also in many other Ecuadorian channels. Reinoso (2014) states:

The reality is that national television channels tend to offer entertainment programs almost all the time, in which show business and sensationalism have proliferated, discouraging the exercise of thinking. (p. 88)

On the other hand, poor information on environmental care is generating a disinterest in the public opinion in environmental education

at the local level. A clear example is the pollution on the beaches of Manta, due to the little media linkage in providing messages for the protection of tourist resorts of this area. In an undergraduate research paper published in 2015 can be observed the lack of awareness messages on the care of El Murciélagos de Manta beach by the local media. "Most people believe that the media should be more linked in the dissemination of messages of protection and care of el Murciélagos beach" (Cumba, 2015, p. 76).

It is clear that the media plays a key role in the public opinion in shaping and educating a community on environmental issues, so television programs of educational content play the role of strengthening the different areas of knowledge. Article 9 of the Technical Parameter Regulations of the Communication Act provides that programs of formative, educational and cultural content need to be those that strengthen the learning of art, science and technology [3]. Based on this, Oromar TV would not be contributing enough to improve education in the context of Manabí within its television programming, and mainly, in linking productions dedicated to environmental education.

Conclusions

The results show that the interest of the public in environmental education in Manabí's media is low in relation to news events that generate environmental scandals or complaints. This is because the mass media seeks to be trendy in the public opinion using the problem of pollution in Manabí, while awareness and education about environmental prevention and care remains in the background, causing there very little attention from people regarding campaigns and educational programs dedicated to green practices.

In relation to Oromar TV channel, the medium only has 22% of informative, educational and cultural content, which would not be complying with what the LOC dictates in its Art. 8 on placing this type of content in the programming.



In addition to that, the lack of dissemination of educational content in Oromar TV channel can become a determining factor when introducing environmental education into the television environment, since, in the absence of a further increase in educational content, it is quite possible that this will become a kind of limitation not to allow productions dedicated to environmental education in the traditional media.

Finally, the problem of the total absence of environmental education programs in a television medium with great coverage at the regional and national level such as Oromar TV could lead to a lack of knowledge over time in the television audience on topics of environmental prevention and care, which may end up indirectly triggering as one more contributing factor to the environmental pollution problem in Manabí.

Notes

1. Organic Law of Communication. Article 60.- Identification and classification of content types. - For the purposes of this Act, sound broadcasting, television, local subscription channels of audio and video systems, and print media are identified and classified in: 1. Informative -I; 2. Opinion -O; 3. Training/educational/cultural -F; 4. Entertainment -E; 5. Sports -D; and 6. Advertisements -P. The media is obliged to classify all the contents of its publication or programming with legal and technical criteria and parameters.
1. Organic Law on Communication. Art. 8.- Prevalence in the dissemination of contents. - The media, in general, will disseminate content of an informative, educational and cultural nature. These contents should support quality and be transmitter of the main values and rights contained in the Constitution and international human rights instruments.
1. Regulation laying down the technical parameters for the definition of audience, time, classification of the programming,

classification of the content, including advertising that are broadcasted on the social media. Article 9.- Informational, educational and cultural content. - The following contents may be transmitted in all time zones, with a prevalence in promoting education and culture for the construction of the Good Living. a. Educational, Cultural Content: 1. Content that strengthens learning from art, science and technology.

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