



Educambcast

Your educational podcast in the environmental area



SOLANGE APARECIDA DE PAULA

RONALDO FIGUEIRÓ PORTELLA PEREIRA





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## **PRESENTATION**

This is the product of a research that aimed to obtain a master's degree by the Professional Master's Degree in Teaching in Health and Environmental Sciences at the University Center of Volta Redonda - UniFOA, which aimed to understand the environmental awareness of the graduates of the Accounting Sciences courses and evaluate the use of Podcast media as a resource for teaching practice.

For this purpose, the study was based on exploratory and bibliographic research, in the search for authors to support the research. The Google Forms tool was used to generate the questionnaires, with the participation of students from UniFOA's Administration and Accounting Sciences courses, to understand if the students had any approximation with the theme Environmental Education (EE) and choosing the guidelines to be treated in the recording of the podcasts.

In this way, after tabulating the results and based on the themes chosen by the respondents, instructional podcasts were created with the themes: Unsustainable use of natural resources; Ground pollution; Decrease and contamination of water; Disposal of solid waste and reduction of production and how electronic waste impacts the environment. The recorded audios were published to access students, teachers, and the general public. The episodes were presented to students of UniFOA's Administration and Accounting Sciences courses and applied in an interdisciplinary and transversal way, highlighting the importance of the themes. Subsequently, a new questionnaire was applied to evaluate the product.

The use of podcast media can contribute as a teaching practice not only in environmental education but in the improvement of multidisciplinary education in higher education as a whole and even in basic education, as long as they are adapted.

It is worth emphasizing that this study seeks to direct those interested in knowing the process of preparing podcasts for use in education, whether teachers or students. However, it is up to the teacher to assume the role of mediator, questioning and guiding in an attempt to create opportunities for student development and learning.



## 1 INTRODUCTION

It is a fact that technology has brought significant changes in the entire routine of society, including educational institutions and educational methods. However, pedagogical practices need to be discussed in terms of their appreciation of the use of technology integrated into teaching methods (REZENDE, 2002).

In fact, Digital Information and Communication Technologies (DICTs) may help to enhance educational processes, if they are used in an integrated way in an attempt to democratically ratify the construction of knowledge and foster the development of citizenship. (ROSA; CECÍLIO, 2010).

Gadotti (2001) highlights, with regard to the digital interface, the importance of technological ramifications because it allows individuals to experiment with new learning methods, having the opportunity to navigate freely in virtual spaces, which favors knowing, exploring and acquiring knowledge. new formats of interaction and learning.

For Carvalho and Aguiar (2010); Moura and Carvalho (2006), the podcast is a technology that allows the student to access instructional materials such as documentaries, interviews, and others at any time and place.

The purpose of the recorded episodes was to suggest ways to work on themes related to EE, in an interdisciplinary way in higher education. However, the episodes can be used as pedagogical support for other topics as well as at other levels of education.



## 2 PREPARATION OF PODCASTS

The podcast elaboration process was divided into five stages, considering that the first stage was choosing the guidelines for the recording of the episodes and then, in the tabulation of the results, the themes were defined. The second stage consisted of defining the name “Educambcast” (figure 1) and preparing the script.

Figure 1: Podcast Media Identification Cover





A script was prepared for each recorded episode (Charts 1 to 6).

**Chart 1: SCRIPT OF EPISODE I**

<b>Solange de Paula</b>	
<b>Theme</b>	Environmental education
<b>Public</b>	General public interested in environmental issues
<b>Name</b>	<b>Educambcast</b>
<b>Time</b>	Minimum 20 minutes / Maximum 30 minutes
<b>Frequency</b>	Master's Product (In Group)
<b>Format</b>	Collective
<b>Script</b>	<p>Hey guys, how are you? This is Solange de Paula and this is the first episode of the Educambcast podcast. Do you know what Educambcast is? I'm going to explain to you. Educambcast is a Podcast that aims to talk about Environmental Education.</p> <p>I am a student of the Professional Master's in Teaching in Health and Environmental Sciences, at UniFOA, and the theme of my dissertation is: Environmental Education. To this end, the Podcast was chosen as an educational product. Thus, this work aims to produce a series of educational materials in the environmental area and present the Podcast as a tool to support the teaching-learning process.</p> <p>In order to address some topics related to EE, we will have the collaboration of some teachers and professionals from similar areas who will participate in the recordings of some episodes of Educambcast.</p> <p>In this first episode, to talk a little bit about Educational Product and EE, we received as a guest, my advisor in the master's degree, Professor Ronaldo Figueiró Portella Pereira.</p> <p>Prof. Ronaldo Figueiró holds a degree in Biological Sciences (Bachelor in Ecology) from the Federal University of Rio de Janeiro, the same institution where he completed a Master's and a doctorate in Ecology; he is a professor in the courses of Biological Sciences, Environmental Engineering and in the Professional Master's in Teaching Health and Environmental Sciences (MECSMA), at UniFOA; he works as a professor at the Centro Universitário Estadual da Zona Oeste (UEZO), where he is a researcher at the Environmental Biotechnology Laboratory and is also a professor at Universidade Castelo Branco (UCB).</p> <p>All right, Prof. Ronaldo? Tell us a little more about your experience.</p> <ul style="list-style-type: none"> <li>• <b>Educational Product and Environmental Education</b>  <b>Topics to be addressed:</b> <ol style="list-style-type: none"> <li>1. The meaning of the educational product for the Professional Master's course.</li> <li>2. Environmental Education as an instrument of reflection in the face of anthropic changes, in order to form a sustainable mentality.</li> <li>3. Environmental Education as an instrument of reflection in the face of anthropic changes, in order to form a sustainable mentality.</li> </ol> </li> </ul>





Chart 2: SCRIPT OF EPISODE II

<b>Solange de Paula</b>	
<b>Theme</b>	<b>Unsustainable use of natural resources</b>
<b>Public</b>	General public interested in environmental issues
<b>Name</b>	<b>Educambcast</b>
<b>Time</b>	Minimum 20 minutes / Maximum 30 minutes
<b>Frequency</b>	Master's Product (In Group)
<b>Format</b>	Collective
<b>Script</b>	<p>Hi! Are you all right? The second episode of the Educambcast podcast is starting and today it is dedicated to talking about the unsustainable use of natural resources. My name is Solange de Paula and I will be here during these minutes.</p> <p>Natural resources are essential for the survival of human beings and the correct management of natural resources is one of the main challenges for the survival of the human population on the planet.</p> <p>To learn more about the challenges related to the unsustainable management of natural resources, we have our guest here today, Professor Roberto Guião De Souza Lima Junior.</p> <p>Professor Roberto Guião is a professor in the Environmental Engineering course at UniFOA; he holds a degree in biological sciences, a master's degree in environmental and forestry sciences, and a doctorate in civil engineering.</p> <ul style="list-style-type: none"><li>• <b>Unsustainable use of natural resources.</b></li></ul> <p><b>Topics addressed:</b></p> <ol style="list-style-type: none"><li>1) Concept of natural resources.</li><li>2) Characteristics of natural resources.</li><li>3) What consequences can the unregulated exploitation of natural resources bring to human life?</li><li>4) Will it be possible to find a balance between consumption and renewal of natural resources?</li><li>5) What measures can be adopted to find this balance?</li></ol>





Chart 3: SCRIPT OF EPISODE III

<b>Solange de Paula</b>	
<b>Theme</b>	<b>Soil contamination</b>
<b>Public</b>	General public interested in environmental issues
<b>Name</b>	<b>Educambcast</b>
<b>Time</b>	Minimum 20 minutes / Maximum 30 minutes
<b>Frequency</b>	Master's Product (In Group)
<b>Format</b>	Collective
<b>Script</b>	<p>Hi! Are you all right? The third episode of the Educambcast podcast is starting and today it is dedicated to talking about Soil Contamination. My name is Solange de Paula and I will be here during these minutes.</p> <p>Whether for the construction of cities, for agricultural practices or as a way of extracting raw materials, soils are endlessly exploited by humans. Due to hundreds of years of uncontrolled and irrational use, the soil has been undergoing chemical, physical and microbiological changes, which has led to the degradation of this natural resource.</p> <p>To better understand the concept and forms of soil pollution, we have here today our guest, Professor and Coordinator of the Environmental Engineering course at UniFOA, Ana Carolina Callegario Pereira.</p> <p>Professor Ana Carolina is a professor in the Environmental Engineering course at UniFOA; she holds a degree in agronomy, a master's degree in agronomy – soil science, a doctorate in agronomy – soil science and a postdoctoral degree in sanitary engineering.</p> <ul style="list-style-type: none"><li>• <b>Soil contamination.</b> <b>Topics addressed:</b><ol style="list-style-type: none"><li>1) Soil concept.</li><li>2) What is polluting the soil and how is this pollution occurring?</li><li>3) How can soil contamination interfere with our lives?</li><li>4) What measures can be adopted to minimize the damage that triggers soil pollution?</li></ol></li></ul>





Chart 4: SCRIPT OF EPISODE IV

<b>Solange de Paula</b>	
<b>Theme</b>	<b>Decrease and contamination of water.</b>
<b>Public</b>	General public interested in environmental issues
<b>Name</b>	<b>Educambcast</b>
<b>Time</b>	Minimum 20 minutes / Maximum 30 minutes
<b>Frequency</b>	Master's Product (In Group)
<b>Format</b>	Collective
<b>Script</b>	<p>Hi! Are you all right? The fourth episode of the Educambcast podcast is starting and today it is dedicated to talking about water <b>reduction and contamination</b>. My name is Solange de Paula and I will be here during these minutes.</p> <p>Water is an essential natural resource for life on the planet. Without it, we humans and no other animal or plant species would survive. Despite being the planet Earth covered in 70% of water, not all water is fit for human consumption, nor is the geographical distribution of water sources the same everywhere.</p> <p>To better understand the importance of managing water resources and monitoring water quality, we have our guest here today, Professor Francisco Jacome Gurgel Junior.</p> <p>Professor Francisco Gurgel is a professor in the Environmental Engineering course at UniFOA; he has a degree in law, a degree in environmental sciences a specialization in tax education, social management, and project development, a specialization in regional urban planning; Masters in Geography and a doctorate in Science.</p> <ul style="list-style-type: none"><li>• <b>Unsustainable use of natural resources.</b></li></ul> <p><b>Topics addressed:</b></p> <ol style="list-style-type: none"><li>1) Can water be considered a finite natural resource?</li><li>2) What is the impact of human activity on water resources?</li><li>3) What are the main environmental impacts that our water resources can suffer?</li><li>4) What needs to change so that we can promote the preservation of water resources and have a sustainable future?</li><li>5) What is our role and what is the role of industries in preserving water resources?</li></ol>



Chart 5: SCRIPT OF EPISODE V

<b>Solange de Paula</b>	
<b>Theme</b>	<b>How e-waste impacts the environment</b>
<b>Public</b>	General public interested in environmental issues
<b>Name</b>	<b>Educambcast</b>
<b>Time</b>	Minimum 20 minutes / Maximum 30 minutes
<b>Frequency</b>	Master's Product (In Group)
<b>Format</b>	Collective
<b>Script</b>	<p>Hi! Are you all right? The fifth episode of the Educambcast podcast is starting and today it is dedicated to talking about <b>How electronic waste impacts the environment</b>. My name is Solange de Paula and I will be here during these minutes.</p> <p>E-waste or technological waste, as the name implies, is that from electronic materials. With the advancement of technology, in the modern world, there is an excess of e-waste that can cause several negative impacts to the environment. We, as a society, are directly involved and responsible for the actions and impacts of this trade and disposal.</p> <p>To learn about some actions and mitigations that are already happening in this universe, on a national and global level, we have here today our guest, Anderson Ferreira de Oliveira.</p> <p>Anderson Ferreira de Oliveira is a business administrator; he holds a degree in business administration, a postgraduate degree in hospital management, and is a student in the professional master's course in health and environmental science education at UniFOA.</p> <ul style="list-style-type: none"><li>• <b>How e-waste impacts the environment.</b> <b>Topics addressed:</b><ol style="list-style-type: none"><li>1) Concept of electrical and e-waste.</li><li>2) Establish the relationship between e-waste and the environment.</li><li>3) What consequences can the disposal of e-waste in sanitary landfills bring to human life and the environment.</li><li>4) Possible solutions related to e-waste.</li></ol></li></ul>



Chart 6: SCRIPT OF EPISODE VI

<b>Solange de Paula</b>	
<b>Theme</b>	<b>Disposal of solid waste and reduction of production</b>
<b>Public</b>	General public interested in environmental issues
<b>Name</b>	<b>Educambcast</b>
<b>Time</b>	Minimum 20 minutes / Maximum 30 minutes
<b>Frequency</b>	Master's Product (In Group)
<b>Format</b>	Collective
<b>Script</b>	Hi! Are you all right? The sixth episode of the Educambcast podcast is starting and today it is dedicated to talking about solid waste disposal and production reduction. My name is Solange de Paula and I will be here during these minutes.  A very gloomy scenario is outlined by studies by the United Nations (UN) and the World Bank, which point out that in the middle of this century we will have 9 billion inhabitants and 4 billion tons of urban waste per year. To help us understand the concept, the challenges in solid waste disposal and the reduction of production, we have our guest here today, Professor Cássio Fernandes Coelho.
	All right, Professor Cassio? Tell us a little about your experience.
	<ul style="list-style-type: none"><li>• <b>Disposal of solid waste and reduction of production.</b> <b>Topics addressed:</b> 1) The differentiation between garbage and solid waste. 2) Objectives of the National Solid Waste Policy (PNRS). 3) The responsibility of waste generators. 4) Essential changes to achieve the goals of integrated solid waste management.</li></ul>



In the third stage, the episodes were recorded, which was carried out in the Radio UniFOA studio and radio laboratory of the Journalism and Publicity & Propaganda courses. Skype was used due to the COVID-19 Episode. The platform chosen was Anchor. 06 (six) episodes were recorded and there was a guest in each episode, considering that 4 guests were UniFOA professors and 2 external guests.

The fourth stage consisted of editing the episodes.

The fifth stage was the dissemination of the podcast. The recorded audios were published so that students, professors, and the general public could access them.

The episodes of this work are available on the platforms, Anchor, Google Podcast, Spotify, and other aggregators.

Access link:

<https://anchor.fm/educambcast>;

Figure 1: Anchor screen print.





### **3. FINAL CONSIDERATIONS**

With globalization, media resources are increasingly present in our routines and it is clear that the use of easily accessible devices can be well explored in education. There is an accelerated technological development in all sectors, which has been reflected in education. New technologies appear all the time, with the purpose of streamlining processes.

In the search for less traditional and more dynamic teaching-learning methods, podcast media was used as an educational resource, since it is freely distributed, easily shareable, and easily accessible for students, allowing the teacher to create educational content, in addition to promoting greater interdisciplinarity.

It is hoped that with the use of the proposed resource, it is possible to disseminate information and sensitize people of the most diverse age groups and social levels that the best quality of life is linked to striving for the improvement of the planet, which the man of must be in balance with the environment and this will happen through environmental education.



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