

Eco-contadores: Consumo y Producción Responsable.

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Abstract

Environmental pollution derived from disposable materials represents one of the most pressing challenges for sustainable development. Within university environments, the frequent use of disposable cups contributes significantly to daily waste generation, highlighting the importance of promoting responsible consumption behaviors aligned with Sustainable Development Goal 12 (Responsible Consumption and Production).

This study aims to assess the impact of an environmental awareness campaign on the level of knowledge and consumption habits of the community at the Faculty of Economics and Administration (FAEA), Universidad Nacional del Comahue, regarding the use of disposable coffee cups.

A quantitative pretest–posttest design was employed, using two structured online surveys administered before and after the awareness campaign. The first survey was conducted in May to measure the initial level of environmental awareness, while the second was carried out in October, following a month-long campaign in September that included informational materials and digital communication.

The findings reveal a significant increase in environmental awareness: the proportion of participants who fully understood the impact of disposable cups rose from 3.1% to 74.2%. Likewise, daily use decreased from 18.8% to 12.9%, and the proportion of respondents who never used disposable cups increased from 40.6% to 48.4%. Moreover, 86.7% of participants agreed that the university community should actively promote the use of reusable cups, reflecting a growing sense of environmental responsibility.

The results confirm that educational interventions can effectively foster behavioral change and environmental commitment within university communities. This project directly contributes to SDG 12 by promoting sustainable practices, reducing disposable waste, and reinforcing the university's role as an agent of cultural transformation toward sustainability.

Keywords: awareness, pollution, disposable cups, surveys, FAEA campus, responsible consumption and production.

1. INTRODUCTION

The generation of waste resulting from mass consumption is one of the most urgent challenges for sustainable development. In particular, consumption and production patterns have been identified as direct causes of the environmental crisis affecting contemporary societies (D'Amato et al., 2019; Hajer et al., 2015). The 2030 Agenda, through Sustainable Development Goal 12, seeks to ensure responsible modes of consumption and production that reduce environmental impact and promote efficient resource use (United Nations, 2015). This goal addresses not only governments, but also educational institutions, businesses, and citizens, who play an essential role in transforming consumption habits (Fischer et al., 2017).

Despite the relevance of this challenge, research has pointed to gaps in how young people—especially in university settings—relate to responsible consumption (Tedeneker, 2019; Leiva-Brondo et al., 2022). Various studies have shown that although environmental awareness is growing, everyday habits remain largely tied to unsustainable practices, such as the widespread use of disposable products (Frank et al., 2020). In particular, the issue of single-use cups on university campuses highlights the need to implement innovative awareness interventions and evaluate their impact on behavior change (Lewis et al., 2021).

In this context, our project aims to analyze the impact of an awareness strategy regarding the use of disposable cups at a kiosk in the Facultad de Ciencias Económicas y de Administración of the Universidad Nacional del Comahue (UNCO). To this end, two surveys will be conducted: one prior to the intervention and another afterward, in order to measure changes in students' perceptions and behaviors. In this way, the research aligns with the contributions of Martínez-Acosta et al. (2023), who emphasize the role of higher education institutions in shaping responsible citizens and promoting sustainability through education and innovation. Thus, our work seeks to contribute to the existing literature by proposing an applied study in a local university context, where reducing disposable cup waste represents both an immediate challenge and an opportunity to foster more sustainable consumption habits.

The remainder of the article is structured as follows. Section 2 introduces the methodology used in the research. Section 3 presents the results obtained from both surveys. Section 4 analyzes and interprets the findings and outlines the limitations encountered. Finally, Section 5 offers the study's conclusion.

2. METHODOLOGY

Research Design

This study follows a quantitative pretest-posttest design, using structured surveys as the main instrument. The objective was to assess the level of knowledge about sustainable practices and pollution within the FAEA community before and after an awareness campaign. This approach allows for measuring the impact of a specific intervention on a defined population.

Participants

The sample consisted of members of the FAEA community. Participation was voluntary and anonymous. No exclusion criteria were applied, as the aim was to capture a diversity of profiles within the community. The sample size remained constant between both measurements to ensure the comparability of results.

Instruments and Measures

Two online surveys were specifically designed for this study. The first survey was conducted in May, prior to the awareness campaign, to assess the initial level of knowledge and perception regarding environmental pollution. The second survey was conducted in October, after the campaign held in September, with the aim of evaluating changes in information levels and environmental awareness. The questionnaires included closed-ended questions and were validated through peer academic review.

Procedure

Data collection was carried out in two stages. In the first stage, the initial survey was distributed through internal digital channels of the FAEA community. Subsequently, an awareness campaign was conducted during the month of September, which included informational materials and social media posts. After the campaign, the second survey was administered under the same conditions as the first, ensuring methodological consistency.

The main variables of the surveys conducted within the FAEA community were the respondents' understanding of the impact of pollution and the amount of coffee consumed on the university campus.

Data Analysis

The data obtained was processed using basic statistical tools. Pie charts were used to visually illustrate the variations in responses between the first and second surveys. This analysis allowed us to identify the impact of the awareness campaign in terms of increased knowledge and changes in perception regarding environmental pollution within the community.

3. RESULTS

Two surveys were conducted among university students with the aim of evaluating their level of environmental awareness, consumption habits regarding disposable cups, and perceptions of sustainable practices on campus. The first survey had 32 participants, and the second had 31.

Survey No. 1:

<https://docs.google.com/forms/d/1AifZIMDEL1rAseLwk1ibjilJTfQGQW1LJ80mxy4InTE>

Survey No. 2:

https://docs.google.com/forms/d/1lgskG8d7u2jTYsDII_U3yoVJaDfSV3-sqQZaS200fa4

3.1 Awareness of Environmental Impact

The results show an increase in awareness levels between both surveys. In the first survey, only 3.1% of participants stated that they fully understood the environmental impact of disposable cups, while in the second survey that percentage rose to 74.2%.

KNOWLEDGE LEVEL	Survey 1	Survey 2
Yes, completely	3.1%	74.2%
More or less, not too much	50.0%	19.4%
Not at all	46.9%	6.5%

3.2 Frequency of Coffee Consumption in Disposable Cups

CONSUMPTION FREQUENCY	Survey 1	Survey 2
Every day	18,8%	12,9%
3-5 times a week	18,8%	3,2%
1-2 times a week	21,9%	35,5%
Never	40,6%	48,4%

The frequency of daily use decreased in the second survey, dropping from 18.8% (among those who consume daily) to 12.9%. Additionally, there was an increase in the group that never uses disposable cups, rising from 40.6% to 48.4%.

3.3 Perception of Sustainable Practices in the Educational Community

In the second survey, 86.7% of participants considered it essential for the educational community to promote the use of reusable containers, reflecting a favorable attitude towards change.

The majority of respondents support institutional measures to encourage responsible consumption.

3.4 Perceived Impact of Reducing Disposable Cups on Campus

More than 96% of participants believe that reducing the use of disposable cups would have a positive impact, highlighting benefits such as less pollution and relief for cleaning staff.

IMPACT	Survey 1	Survey 2
Less trash and contamination	53,1%	51,6%
Benefit for the cleaning staff	15,6%	3,2%
Promoting a culture of sustainability	12,5%	45,2%
Not much impact	18,8%	0%

4. DISCUSSION

The results obtained from both surveys reflect a significant evolution in environmental awareness and consumption habits among university students regarding the use of disposable cups. This transformation can be attributed, in part, to actions implemented on campus, such as informational campaigns on Instagram.

Regarding the level of knowledge about environmental impact, a drastic change is observed: the percentage of students who claimed to fully understand the consequences of using disposable cups increased in the second survey. This difference suggests that educational interventions have been effective in placing the issue on the daily agenda of the university community.

In terms of the frequency of coffee consumption in disposable cups, the data show a positive trend toward reduced use. This change indicates a greater willingness to adopt sustainable practices, such as using reusable containers. The growth of the group that consumes occasionally (1–2 times per week) also stands out, which could be interpreted as a transition toward more responsible habits.

The perception of sustainable practices within the educational community also strengthened. In the second survey, 86.7% of participants considered it essential for the institution to promote the use of reusable containers. These data not only reflect a favorable attitude toward change but also legitimizes the university's role as an active agent in the cultural transformation toward sustainability.

Finally, regarding the perceived impact of reducing disposable cups on campus, more than 96% of respondents agreed that this measure would have positive effects. Although the percentage associating the reduction with "less waste and pollution" remained stable, the increase in the category "promotion of a culture of sustainability" (from 12.5% to 45.2%) stands out, suggesting a deeper understanding of the symbolic and structural value of these actions. The disappearance of responses that minimized the impact ("it would not have a great impact") in the second survey reinforces this interpretation.

The data indicate an improvement in the understanding of the environmental problem, possibly influenced by informational campaigns. Overall, the results show an ongoing cultural shift, where information, participation, and institutional commitment play a key role. Although disposable consumption habits still persist, the trend points toward a more conscious, critical, and sustainability-oriented community.

5. CONCLUSION

The findings of this study demonstrate that educational interventions, such as environmental awareness campaigns, can generate significant transformations in knowledge and consumption habits within university communities. The comparison between pre- and post-campaign surveys reveals a substantial increase in awareness regarding the environmental impact of disposable cups, as well as a reduction in their daily use.

In this context, the study's contribution to Sustainable Development Goal No. 12: Responsible Consumption and Production is noteworthy, as it promotes practices that reduce the use of disposable materials and encourage conscious consumption—particularly within the community of the Universidad Nacional del Comahue, Faculty of Economics and Administration.

In summary, this study confirms that accessible information and active participation are fundamental pillars for driving cultural change toward sustainability. Although challenges remain, the results allow us to envision positive scenarios in which the university community positions itself as an agent of transformation in response to everyday environmental issues.

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