

The Impact of Communication Actions on the Pro-Environmental Behaviour of undergraduates at a College Education Institution

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Abstract Recycling has several positive impacts on the environment and it is still being considered one of the most effective waste disposal methods. However, the recycling process depends on the correct material separation, which has a low level of participation of the entire population. Because of that, wide ranges of communication strategies are used to encourage pro-environmental behaviour. Therefore, this study shows an evaluation of the impact of communication actions embraced by a College Education Institution (CEI) on the environmental behaviour of its students, seeking to evaluate, through structural equation modeling (SEM), the effectiveness of different communication actions aimed to a correct waste separation. The results indicate that communication targeted to changing perspectives in relation to environmental points has a greater impact on students behaviour, as well as the positive perception of people in relation to sustainable issues tends to positively affect their behaviour.

Keywords: Sustainability; Pro-environmental Behavior; Communication; College Education Institution; Undergraduate.

1 Introduction

Waste sorting becomes relevant due to its non-contamination, thereby reducing the cost and increasing the recycling rate (Sheau-Ting *et al.*, 2016). Nevertheless, although it is notorious that recycling benefits the environment by minimizing waste and conserving natural resources (Prestin and Pearce, 2010), population engagement to a proper disposal systems is often low (Latif and Omar, 2012). Accordingly, different communication strategies are increasingly used to promote pro-environmental behaviours through changing perceptions, knowledge, awareness and norms (Setiawan *et al.*, 2019).

Therefore, the aim was to evaluate the impact of communication actions embraced by a College Education Institution (CEI) on the pro-environmental behaviour of undergraduates. The effect of this study

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is justified by the existence of researches that have identified that communication strategies are ineffective in encouraging pro-environmental behaviours, while others have reported that such actions have prompt impacts on the individual's behaviour (Setiawan *et al.*, 2019).

2 Development

This study measures the impact of different measures adopted by a higher education institution in the correct waste separation. To this end, a questionnaire based on the AIDA communication model was used (Lewis, 1899), with the intention of assessing the impact of communication actions aimed at: (i) raising awareness (RA); (ii) arousing interest (AI); (iii) arousing willingness (AW) and (iv) action accomplishment (AA). Besides that, questions towards the interviewed perception over the actions mentioned before were included. This questionnaire was applied to a sample of 200 students of a higher education institution located in the northern region of Rio Grande do Sul. The analysis of the collected data was carried out by means of structural equation modeling (SEM).

The results of structural equation modeling (SEM) indicate that the communication actions adopted have an impact on the pro-environmental behaviour of the individuals, since they all show significant β coefficients, p-value below 0.05, being RA the actions of major impact ($\beta=1.168$), followed by AW ($\beta=1.083$), AA ($\beta=0.951$) and AI ($\beta=0.190$). The results obtained indicate that the communication actions adopted by the higher education institution must have, as the main goal, the raising of student's awareness (RA) of how important is waste separation and, later, arousing the interest and willingness of accomplishing the correct waste separation by providing them the correct information so that their actions happen in the right way.

3 Conclusions

This research made it possible to understand the impact of the communication tools used by the institution on the students' pro-environmental behaviour. The results showed that the communication actions developed according to the AIDA models influenced the students' behaviour for correct separation and disposal of waste, showing that communication actions encourage individuals to perform determined behaviours.

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