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# Promoting Householders' Participation in Household Waste Sorting: A Case for Learning Aluminum Packaging Recycling in Spain

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## Abstract

Recycling is a highly relevant issue in environmental behavior. To make it work, it is necessary to involve people. Many efforts have been made to increase people's participation in recycling. This study proposes an informal education to raise awareness among homemakers about recycling, especially aluminum packaging recycling, using workshops and compensating the factors that act as barriers to recycling in Spain. The results are the "Spaces for Dialogue" strategy to increase knowledge, awareness, and recycling intention. The findings present the main barriers to closing the gap between intention to action, and the study highlights the role that mentors play as teachers in facilitating communication and education for sustainable development.

*Keywords:* education for sustainable development, environmental education, homemakers, recycling training programs, unsustainable behavior

## Introduction

The amount of waste, and specifically packaging, increases every year in the European Union. In 2017, according to Eurostat's statistics, waste packaging reached the figure of 173 kilos per inhabitant, the highest in history (Eurostat, 2020). To combat this problem, in 2015, the European Union outlined a Plan of Action, updated in 2019, to speed up Europe's transition towards a circular economy, boost global competitiveness, encourage sustainable economic growth, and create new jobs (European Commission, 2019).

In this new economic model, recycling is an essential practice in environmental behavior, one of the most *eco-friendly* attitudes that helps build a sustainable future and create new resources (Ari & Yilmaz, 2016). Furthermore, pre-sorting materials at home is an essential factor for ensuring that the recyclable material keeps its value, as this depends on how people are classifying it beforehand (Passafaro et al., 2016), cleaning the material, storing it, and finally taking it to the correct bin or recycling points (Knickmeyer, 2020).

One of the most attractive materials to be recycled is aluminum for several reasons. Firstly, aluminum is a material that homemakers are familiar with. Secondly, recycling aluminum offers significant advantages for the environment, such as reducing consumption of the mineral bauxite and achieving a 95 % reduction in energy consumption when manufacturing new products. Thirdly, aluminum can be recycled indefinitely without losing its attributes. Fourth, the amount of aluminum packaging recycled should be increased in Spain to reach the rates established by European regulations, 60 % before 2030 (European Parliament, 2018) and 50.1 % – in 2019.

Although several activities have been used to convince people that recycling is an essential activity and brings multiple benefits, achieving people's participation is not always easy. Furthermore, in the Anthropocene era, the human being is the center and acts as a limit for sustainable development with a complex root based on unsustainability. In this way, patterns of unsustainable behavior multiply at the global and local levels (Salite et al., 2020).

Moreover, people require recycling skills and procedural environmental knowledge about what and how to do it (Passafaro & Livi, 2017). In contrast, the study by Kalungwizi et al. (2018) shows that participatory methodologies within the framework of action research may contribute to social change through environmental education for communities and local actors' support. In this line, Hou et al. (2020) also explained that environmental education for urban families based on awareness, reflection, and practice (at the same time) helps deal with practical issues influenced by social and ecological values. In the same mindset, research by Furu et al. (2021) showed that a mixture of theoretical and practical activities was beneficial for learning, being multi-modal storytelling useful for theoretical aspects leading to a lasting change in patterns and behavior.

Thus, this study proposes a new intervention strategy to raise awareness of aluminum packaging recycling among homemakers and offset the factors that act as barriers to recycling. Regarding this purpose, this research seeks to address the following question: Would an informal education strategy facilitate the transition from awareness to the intention of recycling aluminum packaging among homemakers?

This paper is organized as follows: First, we present the framework used to conceptualize the way of promoting recycling. Then, we describe the methodology and present the results. Finally, we engage in an in-depth discussion, providing some concluding remarks and implications for future research.

### **Communication, Public Relations and Education to Promote Recycling**

Public relations (PR) or its equivalents began when people grouped to live in tribes, where the survival of one depended on the survival of the rest. Civilization, for its functioning, requires communication, conciliation, consensus and cooperation – pillars of the public relations function (Cutlip, 1995). The three of them (Communication, Public Relations and Education) are also the pillars of changing people's behavior with a long-term effect and, probably, influence information and knowledge about recycling and promoting a lifestyle that favors participation (Meng et al., 2018; Dri et al., 2018). Some authors like Hopkins and McKeown (2007) or Buil et al. (2019) enhance the idea that organizations and the private sector should support formal education for sustainable living and that all agents working together benefit from the new knowledge, skills and

practices. In this way, communication and PR activities from the private sector and pedagogy work together towards sustainability in society besides other elements like policy or market regulations.

Passafaro and Livi (2017) explain a potential gap between perceived and actual recycling skills. Perceived skills represent crucial motivational factors but are not a guarantee to act. Besides, the “knowledge-to-action gap” is a constant concern because uncontested knowledge often does not exist, which leads to a lack of clear action alternatives. Thus, consumer policy should use clear messages, directors, and sufficient information to the entire population to guide actions (Thøgersen & Schrader, 2012).

Communication has assumed the challenge of training and persuading people through informal education (Román Núñez & Cuesta Moreno, 2016), although communicating environmental matters is complex. Besides, this study addresses very mixed audiences with different levels of awareness, understanding environmental awareness as the formation of environmental sensitivity through the conscious perception of environmental problems (Coertjens et al., 2010).

The different tools used in communication make it possible to convey the environmental message, raise awareness, interact with the community, share ideas, train educators and handle complaints from the public. One of the most effective communication tools is the so-called “public speaking approach,” as it makes it possible to check the impact immediately, encourage participation and react in the context of two-way communication (Knickmeyer, 2020). “Public speaking approach” enables people to go beyond the simple transmission of information and enter an interactive format, where both the exchange of information and the context are essential (Salhofer & Isaac, 2002).

Interactive communication styles are effective in small communities where local knowledge, setting up networks and promoting local participation are essential (McEntee & Mortimer, 2013). The success of these actions is based on three factors: managing to raise awareness among people and getting them to adopt a positive attitude to that effect; offering information directed at changing behavior; and reporting the results achieved with this behavior change (Tom et al., 2011). The closer waste management and communication are to local conditions, the more effective they will be. For this reason, there must be maximum personalization, starting with an in-depth knowledge of the people who are going to use the recycling system (Knickmeyer, 2020).

### **Achieving a Change in Behavior**

Environmentally significant behavior can be “defined from the actor’s standpoint as behavior that is undertaken to change (normally, to benefit) the environment.” (Stern, 2000). Moreover, environmentally significant behavior is also related to sustainable household consumption and sorting household waste for recycling as private-sphere environmentalism (Stern, 2000).

Therefore, social change and environmental behavior require the understanding of values, social status, and beliefs regarding the environment (Miranda, 2013). Attitudes act as a bridge between beliefs and intentions, leading towards a specific behavior. Of the two, intentions have more impact on behavior (Ari & Yilmaz, 2016). However, changes in attitude do not always mean changes in behavior (Tom et al., 2011).

Through the transmission of knowledge, people understand recycling better, how it works and how they can participate (Izaguirre-Olaizola, 2015). This transmission of

environmental knowledge should be carried out, bearing in mind the knowledge itself, the capacity to change behavior and the information needed to participate in recycling programs (Miafodzyeva, 2013). Therefore, communication strategies can be adapted to close the gap between the perceived capacity and the real capacity to change people behavior (Passafaro et al., 2016).

Nonetheless, there are some factors important to consider in recycling behavior. First, some academics provide evidence that women are more prone to show sustainable behavior than men based on higher control of domestic household (Babaei et al., 2015). This gender difference would establish that women are more receptive audience in waste management and recycling training programs (Babaei et al., 2015). The second factor to be considered is exposed by Geiger et al. (2019), who claims that people are more likely to recycle when close people do it when they think that others will approve it, when they have had the recycling habit in the past and when they see themselves as recyclers. Additionally, it has been proved that there is a positive correlation between the effort made in communication and participation in recycling (Dri et al., 2018). Plus, awareness is directly affected by the education of the people and in a research conducted by Omeje et al. (2020) multiple regressions revealed that it was significantly positively predicted by gender, qualification and status.

Finally, the personal experience connects and expands the personal framework for understanding sustainability (Salite et al., 2021).

The following tables (Table 1 and Table 2) summarize the main obstacles and motivations that affect recycling behavior (Kollmuss & Agyeman, 2002; Hage et al., 2009; Nixon & Saphores, 2009; O'Connell, 2011; Garnett & Cooper, 2014; Jesson et al., 2014; Nguyen et al., 2015; Ma & Hipel, 2016; Schumaker, 2016; Xu et al., 2016; Varotto & Spagnolli, 2017; Oliveira et al., 2018; Geiger et al., 2019; Meng et al., 2018; Huysentruyt et al., 2020; Knickmeyer, 2020).

**Table 1**

*Obstacle Factors in Recycling*

- 
- Lack of access to recycling centers.
  - Lack of equipment.
  - Difficulty in sorting waste at home.
  - Not having enough space at home or time to recycle.
  - Lack of knowledge about what to recycle and how to do it. Lack of information.
  - Lack of economic policies and incentives.
  - Lack of trust in the system and the authorities.
  - Price of waste recycling management.
  - Discrepancy between concern about environmental damage and the limited action that the general public can take, which causes a gap between intention and real action.
  - Emotional response towards rubbish, seeing it as no longer having any use.
  - Personal obstacles, such as lack of interest, laziness.
  - Not knowing the value of recycling.
  - Confusing logos on packaging, multi-material packaging.
  - Different recycling systems in different places.
  - Not seeing any personal benefit in the effort required for recycling.
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Source: Compiled by the authors, based on the authors' work.

**Table 2***Motivational Factors for Recycling*

- 
- Social norms and pressure: imitating neighbors or “what they will think of me if I recycle”.
  - Personal norms: feeling of moral obligation or assuming a type of behavior.
  - Self-identity: positive self-image when conforming to a norm and doing what other people do.
  - Concern about the environment, correlation between recycling and pro-environment attitudes.
  - Benefits both personally and for the community: cost is lower for recycling rubbish than for dealing with it without recycling when it is considered a threat or if there are financial benefits.
  - Knowledge of practices in recycling and capacity to do it: where, when, and how to recycle.
  - Easy access to suitable infrastructures and programs: possibility of having bins at home, distance to recycling centers, ratio between population and the number of bins, space at home for storage, high collection frequency, bins being clean and visually attractive.
  - Perception of easiness and effort: the easier the system is to understand and use, the more it will be used.
  - Previous behavior, if the recycling habit has been acquired previously.
  - Values and personal ethics: what is important for a person. Degree of personal responsibility regarding recycling.
  - Communication and environmental education about recycling.
  - Pro-recycling laws and regulations.
- 

Source: Compiled by the authors, based on the authors' work.

All the ideas and knowledge obtained from the literature review have been considered in the research that follows.

## Materials and Methods

### Context of the Study

The research took place in Spain, a European country with a Circular Economy Strategy, with the collaboration of ARPAL, Association for Recycling of Aluminum Products, and Tyrius, Association of Housewives and Consumers, which is a Valencian consumer organization with the most significant number of affiliates and presence in more than 220 locations. ARPAL and Tyrius are part of this research because they are actively committed to the aluminum packaging recycling and circular economy implementation, and the participation by a local organization with credibility and prestige is one of the pillars required for a program to work (Knickmeyer, 2020; Rahim et al., 2019).

Regarding the recycling of aluminum packaging in Spain, in 2018 a recycling rate of 51.5 % was achieved (ARPAL, 2019). According to EU Directive 2018/852 of the European Parliament and the Council of May 30, 2018, recycling rates for aluminum packaging of 50 % must be achieved in 2025 and 60 % in 2030 (European Commission, 2018).

In this sense, Tyrius is quite relevant because, according to a study carried out with 154 house makers in Spain, this group has a more favorable attitude to recycling than other family members (Aguilar-Luzón et al., 2012). This latest research also highlights

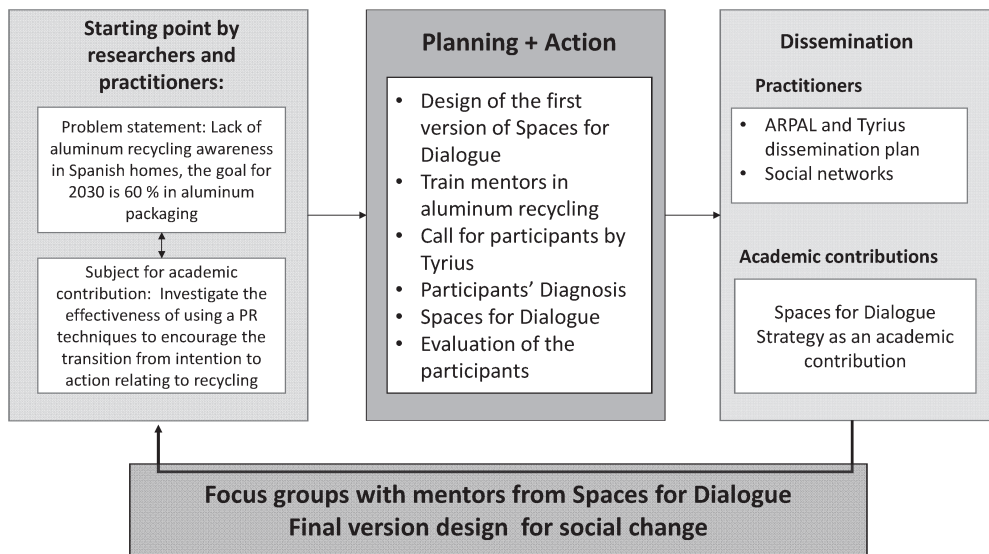
the phenomenon of “environmental hyperopia”, according to which distant environmental problems seem more important than nearby ones and the feeling of responsibility is less when facing problems on a global scale. For this reason, it must be known in advance if the recycling behavior is perceived as a response to a local problem or is part of a global environmental problem. Furthermore, recycling some material does not imply that recycling extends to other materials, as was demonstrated in a study with this same type of population, Spanish housewives (Aguilar-Luzón et al., 2012). Consequently, recycling training can focus on specific materials to make the behavior effective.

### Action Research Project

This study leaned towards the use of Action Research (AR) as a methodology that promotes joint research among academics and practitioners, generates results for both, and contemplates an iterative evaluation process to improve the results and generate social change. According to the methodological proposal of Avella and Alfaro (2014), Figure 1 shows the development of this research.

**Figure 1**

#### *Action Research Performance*



In the first place, at the “Starting Point,” the problem and the academic challenges are jointly established. In AR, the participation of practitioners is voluntary and requires commitment since the beginning, in this case, the Tyrius’ participants. The research team includes an expert in promoting the recycling of aluminum packaging, an expert in communication, an expert in environmental management, and an expert in education.

Then, the “Planning and Action” stage was established to design the first version of “Spaces for Dialogue” and prepare the related activities of the Action Research Project. At this stage, the first version of the strategy named “Spaces for Dialogue” was proposed



to promote recycling packaging, particularly aluminum packaging, by homemakers. In this process, one of the researchers trained five mentors from Tyrius in aluminum packaging recycling. These mentors later took charge of adapting and running the “Spaces for Dialogue”.

The “Spaces for Dialogue” were attended by 383 people responsible for household chores in 18 towns in the Valencian region. 10 % of the participants were men, who said they were responsible for sorting waste at home and taking it to the bins. Regarding the age, the sample ranged from 40 to 80 years, and it should be noted that in smaller towns, all the participants were over 60.

These “Spaces for Dialogue” followed the “public speaking approach” through participative workshops. First, the mentors used to lead brainstorming to find out the participants’ starting point in terms of environmental knowledge, awareness, intention and recycling skills. Then, the trained mentors explained the different types of aluminum packaging in the market, where to recycle them and why. Informing people about recycling practices and their impact on the environment and one’s health is likely to change their behavior when recycling (Knickmeyer, 2020). In this way, the mentors played a role of teachers. Likewise, to avoid confusion, the information given to participants was standardized with a principal video and supporting materials, as well as optional hand-crafts activities. Even if these concerns are different among communities, the message and context will always be adapted to each place (Knickmeyer, 2020).

Mentors answered questions about recycling and consumption, and they proposed and moderated the debate about the benefits and obstacles concerning the consumption of packaging, recycling in general, and recycling of aluminum packaging specifically. At all times, the information was intended to be relevant to the participants’ daily life and provide clear instructions about how to participate in recycling (O’Connell, 2011; Knickmeyer, 2020).

The “Spaces for Dialogue” each lasted two hours, and great emphasis was placed on the participation of the attendees. Multiple mechanisms were put into place to assess the participants’ evolution and the “Spaces for Dialogue” performance, such as post-workshop surveys which were answered voluntarily by the attendees in terms of three parameters: procedural knowledge, awareness and intention to recycle. Although 383 people attended the “Spaces for Dialogue”, only 322 people filled the survey. There was a total of 8 questions in the survey (see Annex 1).

Afterwards, the “Dissemination” stage was encouraged by ARPAL and Tyrius, and it aimed at sharing the results with practitioners, and the academic contributions were defined. Finally, this study made an “Assessment” of the Action Research Project and the “Spaces for Dialogue” strategy to present a final version contributing to social change. A focus group with the mentors was carried out to evaluate the development of the activity. Likewise, valuable information was gathered to optimize future “Spaces for Dialogue” and encourage participants to support recycling.

Although this cycle has ended, the Action Research methodology opens the door to developing iterative exercises that continue to improve results for practitioners and academics.

### Action Research Project Results

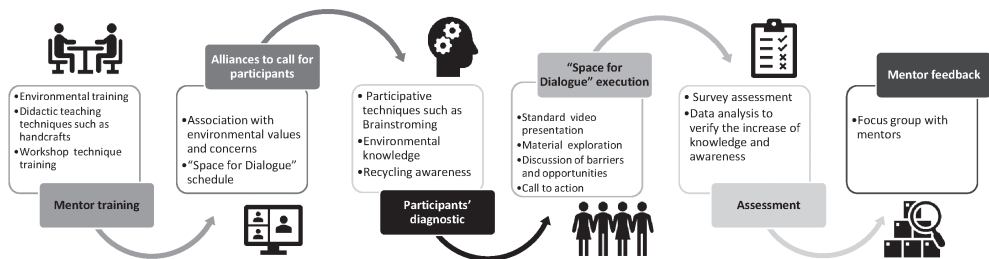
The data collected from the AR process were also supported by focus groups and the statistical analysis of the surveys, similar to other AR projects in environmental education (Siu & Xiao, 2020; Kalungwizi et al., 2018). The following results were compiled concerning the effectiveness of “Spaces for Dialogue” with homemakers in promoting the recycling of packaging and aluminum packaging.

#### “Spaces for Dialogue” Strategy

The final version of “Spaces for Dialogue” includes six steps (Figure 2): 1) Mentor training, 2) Alliances to call for participants, 3) Participants’ diagnostics, 4) “Space for Dialogue” execution, 5) Assessment, and 6) Mentor feedback.

Figure 2

#### “Spaces for Dialogue” Strategy



The mentors carried out the diagnosis stage of “Spaces for Dialogue” to show the participants the starting point. The mentors gathered the diagnosis information using the brainstorming technique and the resulting post-it papers, and the information was analyzed by clustering the proposed ideas. That stage showed that the workshop participants knew about recycling, although not all of them practiced it. The participants mentioned that local governments in Spain encouraged recycling activities, and they used to recycle paper, cardboard and glass and, going deeper into the subject, plastic, tetra pack and cans emerged. At no point did they mention aluminum packaging specifically.

Regarding the yellow recycling bin, participants recognized them, but there was a significant lack of awareness of packaging intended for it – the vast majority associated it with plastic and to a lesser extent with tetra pack and cans. The first barrier identified was that the heading “light packaging” (an expression used to indicate what can be thrown in the yellow bin) did not make it clear which packaging should be included.

The second barrier was the different systems of selective waste collection in towns. In general, there were yellow recycling bins in almost all of them, but some small towns only had mobile collection points on certain days. It is a point that was criticized by the participants as an obstacle to recycling, mainly when it involved travelling. It must be borne in mind that it is in these smaller towns that the older population lives. Another



general complaint was that the yellow bins were not emptied frequently enough, dirty, or not enough of them.

The third barrier is the lack of motivation and awareness by a small group that mentors defined as skeptics, who do not understand why to make good packaging recycling at home if they pay the local waste collection tax. The fourth barrier is the lack of trust in the collection system, considering the frustration caused by watching that “all the bins are emptied into the same truck together” and pollution generated by the collection trucks. That is a misunderstanding because the trucks have an internal division to collect the waste properly. When it came to aluminum packaging, it was noted that there was a significant lack of knowledge about it and the correct bin to collect it, although people were willing to recycle it.

In contrast, regarding advantages, financial benefits were mentioned, and it was noted that these were highly valued. Benefits relating to the environment were also mentioned. Most of the benefits mentioned were global, not only personal or for the community.

In the “Spaces for Dialogue”, the guided the conversation to tackle the barriers and teach aluminum recycling benefits. Participants especially appreciated its wide range of uses, the ease of recycling and indefinite recycling cycle, as well as the fact that it starts the recovering material loop in the yellow recycling bin. One point that they emphasized was that they had not known aluminum foil could be recycled. Occasionally, the mentors reported that there had been reticent somebody about recycling aluminum packaging, but at the end of the activity, they were convinced of the benefits of recycling.

### **“Space for Dialogue” Impact**

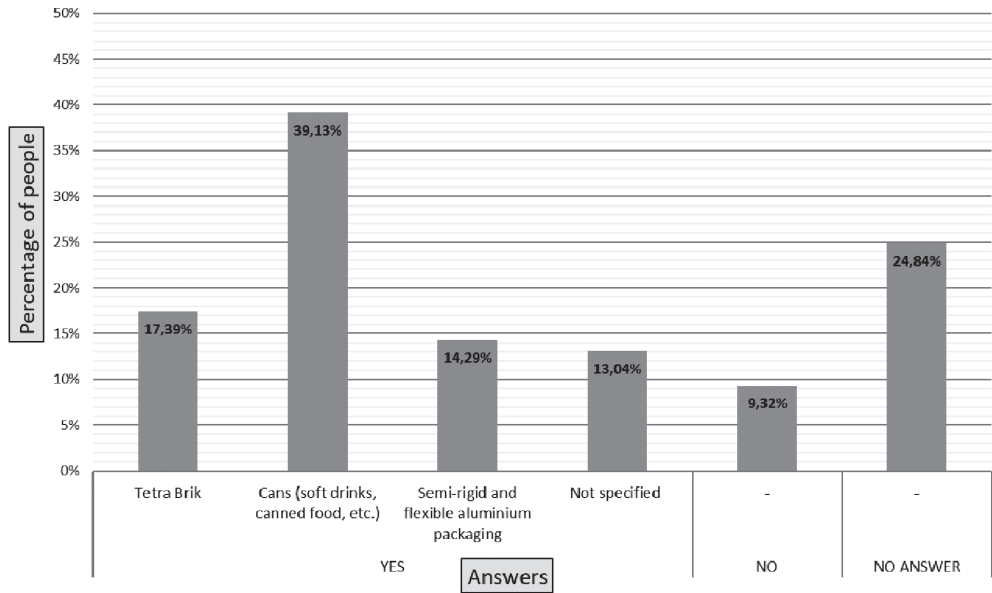
Considering the research question, post-surveys “Spaces for Dialogue” aimed at verifying that the “Spaces for Dialogue” strategy improved the recycling skills and procedural environmental knowledge of homemakers, and specifically their ability to identify the materials that go in the yellow container in Spain. The quantitative analysis of the surveys performed after the “Spaces for Dialogue” showed that 54.66 % of the participants had “moderate” knowledge of the first recycling stage, i.e., they recognized some of the materials that should go in each bin. In turn, 12.42 % possessed “excellent” knowledge.

When it came to naming different kinds of packaging made of aluminum, at the end of the “Spaces for Dialogue”, 65.84 % of the participants had excellent knowledge: most of them mentioned cans in general (39.13 %), drink cartons (17.4 %) and aluminum packaging (14.29 %), and only 13 % did not specify any packaging. However, this study shows some difficulties to identify sufficiently the materials taking into account that 9.32 % did not name the packaging correctly, and 24.84 % did not answer the question (See Figure 3).

With regard to aluminum packaging collection, a vast majority of the participants (78.57 %) answered correctly – the yellow recycling bin. A small percentage answered incorrectly – bins (4.66 %), and 16.77 % did not answer at all (See Figure 4).

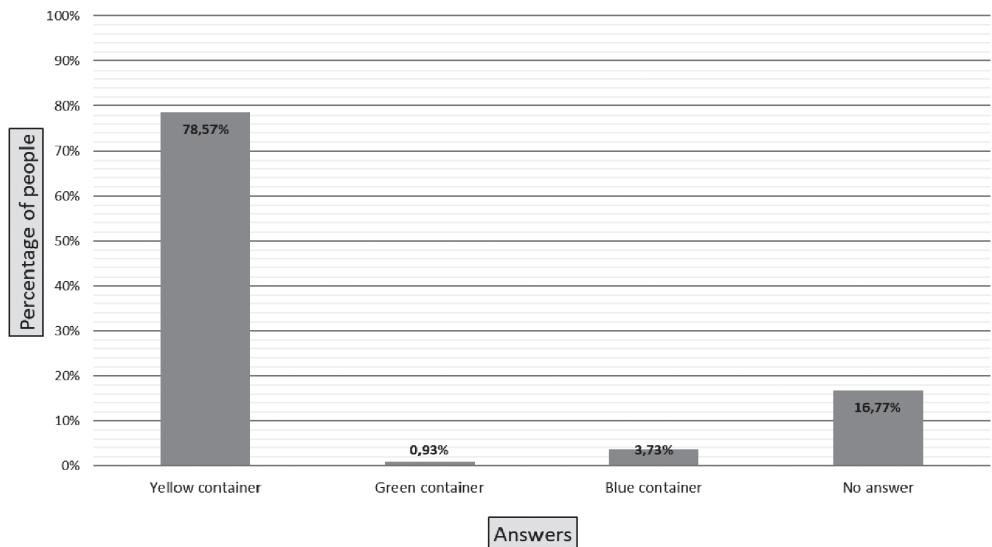
**Figure 3**

*Answer the Question: Can you Mention Packaging Made of Aluminum?*



**Figure 4**

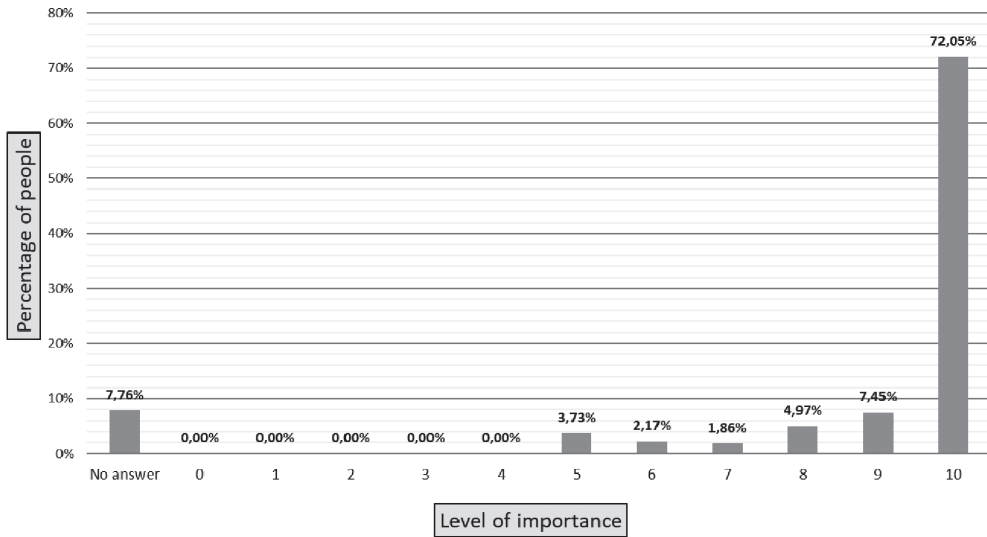
*Answer the Question: Do You Know in Which Container Aluminum Packaging Must be Placed in Order to be Recycled?*



Then, regarding the effect of their participation in recycling, 72.05 % considered their participation critical (see Figure 5). In this way, “Spaces for Dialogue” increased knowledge and provided specific skills.

**Figure 5**

*Answer the Question: How Important do You Consider Your Participation in Aluminum Packaging Recycling?*

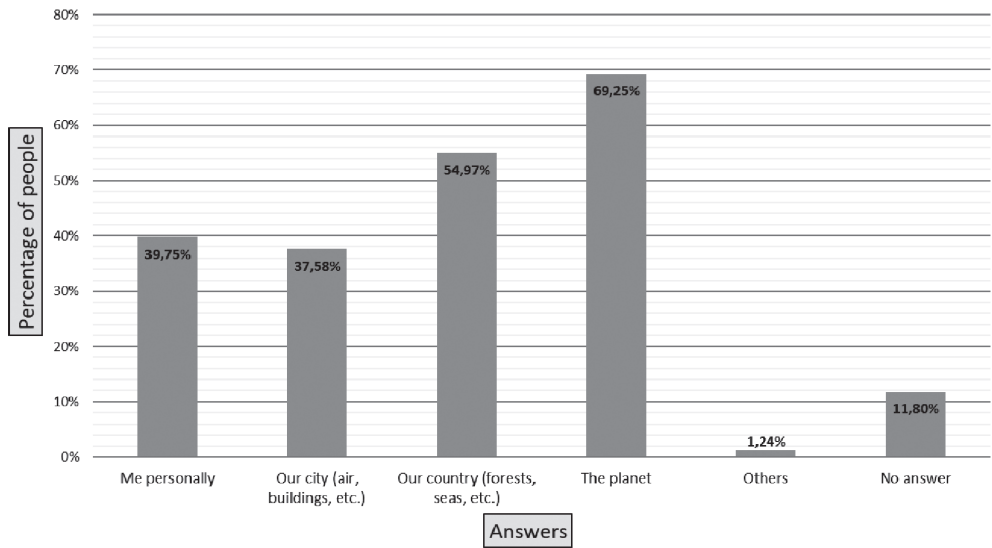


At the diagnosis stage of “Spaces for Dialogue”, most of the participants mentioned only “the environmental” benefits. In contrast, the section associated with the benefits of people participation in recycling shows the change of mind because most of them considered highly important global aspects, such as “the planet” (69.25 %) or “our country” (54.97 %), while nearly 40 % mentioned benefits closer to home, such as “our town” or “me, personally”. As a consequence, “Spaces for Dialogue” showed that the recycling practices would benefit their surroundings. Moreover, personalizing benefits means a greater sense of responsibility for recycling practices (See Figure 6).

Concerning recycling intention and action, after the “Spaces for Dialogue”, almost all the participants mentioned aluminum packaging as a material to recycle: drink cans (81.37 %), tetra pack (80.43 %), aluminum packaging (77.95 %), aluminum foil (72.36 %) and another metallic packaging (69.88 %). This answer contrasts with the starting point, where the participants did not name any type of aluminum packaging except for cans. This answer shows the acquisition of knowledge about aluminum packaging, the importance of its recycling, and its intention (See Figure 7).

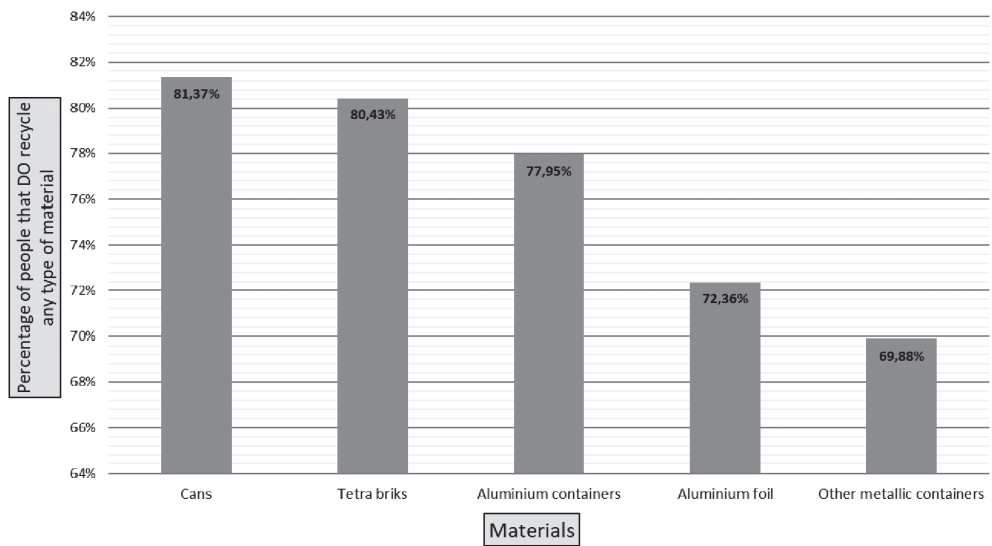
**Figure 6**

*Answer the Question: Who Benefits if You Recycle Aluminum Packaging?*



**Figure 7**

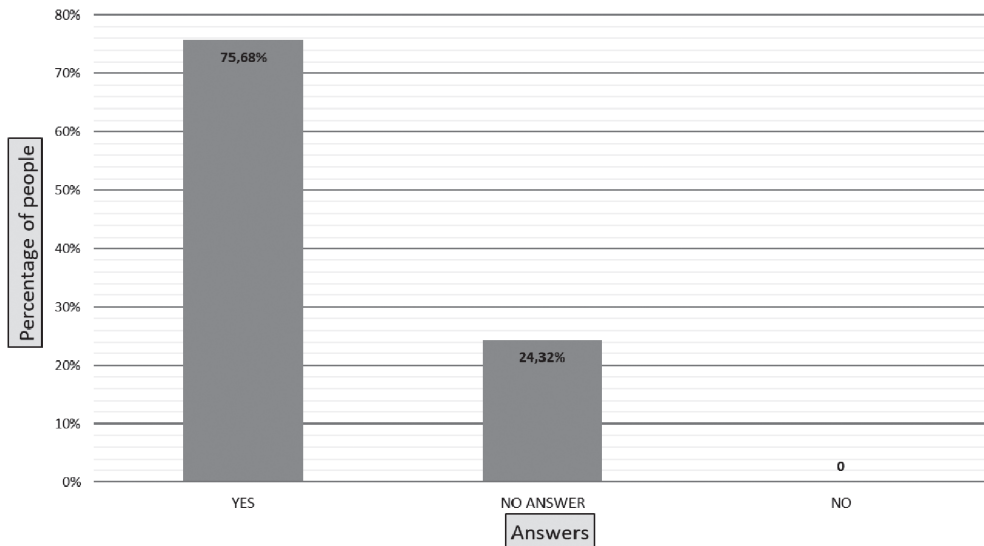
*Answer the Question: Do You Recycle Some of the Following Material at Home or Workplace?*



Finally, more than 75 % of the participants considered the activity to be “interesting” instead of 24.32 % who left the answer blank. No negative answers were given (See Figure 8).

Figure 8

Answer the Question: Have You Found Interesting the Workshop on Recycling?



### Discussion and Conclusions

This study aimed at proposing a new intervention strategy to raise awareness and intention to recycle aluminum packaging among homemakers, named “Spaces for Dialogue” as an effective strategy to facilitate the transition from intention to action relating to recycling aluminum packaging among homemakers. Moreover, the research made it possible to confirm four critical barriers to recycle by homemakers from this part of Spain. The barriers most frequently mentioned are the lack of knowledge of waste separation, i.e., the proper use of recycling bins (Passafaro & Livi, 2017; Knickmeyer, 2020; O’Connell, 2011; Oliveira et al., 2018; Geiger et al., 2019); low frequency of mobile collection points or poor condition of recycling infrastructure (Rahim et al., 2019; Passafaro & Livi, 2017; Knickmeyer, 2020; Oliveira et al., 2018; Omran et al., 2009); lack of knowledge of packaging, in this case, aluminum, and that it can be deposited in the yellow recycling bin (Orzan et al., 2018; Huysentruyt et al., 2020); and skepticism or lack of trust in the system (Knickmeyer, 2020; O’Connell, 2011).

Thus, the AR project and the survey showed that part of the sample analyzed was represented by people that knew about recycling but did not practice it, a behavior that had also been noted by other researchers and that some of them attributed to apathy among the population (Rahim et al., 2019). In this research, it was established that the main reasons for not recycling were the lack of knowledge about what to put in the recycling bins, inadequate infrastructure and, in some cases, skepticism due to *fake news*. This study also confirmed that recycling some materials like plastic or glass did not mean that recycling included other materials and that financial incentives were highly valued.

Concerning the research objective, it can be claimed that the “Spaces for Dialogue” is an efficient strategy for spreading information, raising awareness, and increasing procedural knowledge of recycling.

This study also demonstrated the importance of trained mentors for environmental education in different regions. It can be stated that trained mentors from local associations are part of the program success, as they are the catalysts for the adaptation of the messages, context and materials to each situation and population group, as well as they act as educators.

On the other hand, this study has some limitations. First, the effectiveness of the “Spaces for Dialogue” could have been greater if parallel actions had been carried out in local schools. Working together with schools and local organizations, and with the support of the community, should be good for continuous environment education and more integrated learning (Wanchana et al., 2020).

Second, the research focused on some towns in Valencia; nonetheless, future research could be conducted focusing on other regions of Spain and Europe.

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**Annex 1**  
**QUESTIONNAIRE POST "SPACES FOR DIALOGUE"**

First Name and Family Name \_\_\_\_\_

City and Post Code \_\_\_\_\_

1. Do you know which material (cardboard, glass, plastic, metal, etc.) is deposited in each bin in order to be recycled?

- Yellow bin \_\_\_\_\_
- Blue bin \_\_\_\_\_
- Green bin \_\_\_\_\_

2. Can you mention any packaging made of aluminum?

\_\_\_\_\_  
\_\_\_\_\_

3. Do you know in which container aluminum packaging must be placed in order to be recycled?

- Yellow bin
- Green bin
- Blue bin

4. How important do you consider your participation in aluminum packaging recycling?

Mark a box from 0 to 10 according to the importance that you give to recycling, being 0 – no importance and 10 – very important.

- |   |                          |   |                          |   |                          |    |                          |
|---|--------------------------|---|--------------------------|---|--------------------------|----|--------------------------|
| 0 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 6 | <input type="checkbox"/> | 9  | <input type="checkbox"/> |
| 1 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 7 | <input type="checkbox"/> | 10 | <input type="checkbox"/> |
| 2 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | 8 | <input type="checkbox"/> |    |                          |

5. Why (or why not) do you consider important to participate in the recycling of aluminum packaging?

\_\_\_\_\_  
\_\_\_\_\_

6. Who benefits if you recycle aluminum packaging? Mark as many answers as you wish

- Me personally
- Our city
- Our country
- The planet
- Others \_\_\_\_\_

**7. Do you recycle or intend to recycle some of the following materials?**

	YES	NO
- Cans	<input type="checkbox"/>	<input type="checkbox"/>
- Tetra bricks	<input type="checkbox"/>	<input type="checkbox"/>
- Aluminum containers	<input type="checkbox"/>	<input type="checkbox"/>
- Aluminum foil	<input type="checkbox"/>	<input type="checkbox"/>
- Other metallic containers	<input type="checkbox"/>	<input type="checkbox"/>

**8. Have you found interesting the workshop about recycling?**

- YES
- NO

**Thanks for your participation!**