

# What a waste! Reflections on student recycling behaviours

Jonathan Parker, Sara Ashencaen Crabtree and Joseph Dixon

## Introduction

In the 2019-2020 academic year, there were approximately 361,000 students occupying university-maintained property in the UK and over 175,000 in private-sector halls. Students, at the beginning of their independent lives with the most formative years for pro-environmental behaviours upcoming are vital to generating a more sustainable society in the future.

Previous research examining student recycling often neglects halls of residence. This research investigates student perceptions of recycling strategies in one English university's halls of residence.

## Background

“You have stolen my dreams and my childhood with your empty words. And yet I’m one of the lucky ones. People are suffering. People are dying. Entire ecosystems are collapsing” (Greta Thunberg at the United Nations [UN], 2019).

The prominence of living sustainably, using resources carefully and recycling is central to contemporary life. Despite the widely acknowledged, importance of sustainable living active engagement with sustainability remains relatively low amongst the general population.

The 1987 report, *Our Common Future*, prepared the way for the development of the Sustainable Development Goals (SDGs) in January 2016. The 17 SDGs extended the commitment of the international community to climate action, responsible consumption and partnerships amongst other things. The implementation of the SDGs is of vital international importance for the earth’s survival. Experts predict irreversible climate change by 2030 without significant emission reductions. At that point, the ability for this generation to meet its own needs, or the needs of future generations, will be seriously hampered by extreme weather, rising sea levels and extinction of species. Therefore, there is an immediate need for sustainable actions to be implemented. Recycling can offer positive impacts on sustainability.

Individual household recycling rates remain low at 45.2% of total household waste, similar across EU member states. Students are an important demographic to consider in terms of recycling. They are still formulating their ideas and behaviours and as such there are fewer negative norms to break. Students are malleable and if one student can be encouraged to increase their recycling this may have a positive impact on their peers and family members, now and in the future. Also, students are the future leaders of business, politics and society and thus will play key roles in shaping more sustainable futures.

Research on student recycling remains limited and fragmented. The Student Sustainability Director of university accommodation provider, Unite, suggests that despite students having the most knowledge of environmental issues, they are the most environmentally reckless. However, concern for climate change within the student population is high at 91% indicating the presence of a value action gap between concern and action.

Limited research identifies several themes, such as the influence of others, education and information, physical structures, and attitudes and motivations, being the most common.

## Current research

### *Influence of others*

Students are at a key point of change in their lives and behaviours are still forming. The influence of parents is an important factor, although the level of influence is disputed. However, with around 70% of full time first year students living in halls of residence in this paper, we focus on the influence of fellow students rather than parents.

The influence of housemates and peers represents a significant influence on student behaviour. This is likely to result from social approval or disapproval, suggesting some students are recycling because of the concern for social acceptance and the impact of peer pressure rather than their own pro-environmental stance.

As well as the influence of others in increasing recycling rates, the reverse is also true. Students' established recycling behaviours may be reduced if peers do not act sustainably, perhaps reflecting a belief that their efforts are wasted if others do not reciprocate. However, when an individual has strong feelings towards the environment, they may partake in sustainable behaviours such as advocacy, conservation and recycling whatever their surroundings. Attachment to others also matters. For example, students lacking affinity with randomly allocated flatmates will be minimally influenced. To encourage student recycling behaviours overall, a student-led approach is important, in which all students feel they are members of their wider community within their halls of residence.

### ***Education and Information***

Higher levels of general education tend to increase environmental behaviours. Increases in student pro-environmental behaviours results also from informal education.

Environmental knowledge leads to the formation of attitudes and values which, in turn, may result in pro-environmental behaviours.

Despite the important role of education and information in increasing knowledge, a multi-faceted approach is needed as education seems ineffective on its own. Educating for pro-environmental behaviours may change attitudes, but does not necessarily change actions. A far more influential factor seems to be physical surroundings.

### ***Physical Structures***

A key influence in motivating students to recycle is the ease of the process with 25% of students reporting they only recycle when it is convenient. This includes the availability, adequateness and proximity of facilities. When not in place, these factors create a significant barrier to sustainable behaviours.

### ***Attitudes and Motivations***

When considering methods for increasing recycling rates, it is important to understand underlying factors currently encouraging individuals to recycle especially pro-environmental attitudes and motivations.

Efforts to improve recycling rates need to focus on extending positive attitudes through information campaigns, physical measures, (economic) incentives and administrative actions. When such attitudes are embedded as an environmental identity, the positive effects on recycling are likely to be more pronounced. However, attitudes to translate into behaviours, there also needs to be a mix of social pressures to be seen to be benefitting the environment, low perceived difficulties associated with recycling, and the presence of environmental beliefs. Potential methods to encourage students to increase recycling, therefore, require a combination of the following:

- To feel part of a community, and feel every member of this community is partaking;

- To have knowledge, or be increasing knowledge;
- Accessible, convenient recycling facilities; and
- To have, or be developing positive environmental attitudes.

The data concerning sustainable behaviour and recycling is limited and, often, inconsistent. Our focus concerns students living in halls of residence as these are underrepresented in existing literature and offer a unique challenge in efforts to increase recycling rates. The research question we posed was ‘how do students perceive the recycling strategies of their university hall of residence?’

### **Study methods**

The research was based on twelve semi-structured, thematically analysed interviews with students living in self-catered halls of residence in one English university. A constructionist approach, which allows for increased fluidity within interpretations of the everyday world and knowledge of it, was taken to consider the differences and development of individual meanings. Students were chosen to represent the range of different levels of study and different halls and this naturally created a range of ages between 18 and 30.

Semi-structured face-to-face interviews were used to gain in-depth perceptions and meanings and to allow increased reflexivity and flexibility in prompting respondents to expand on issues significant to them. Questions were based around their knowledge and attitudes towards recycling and sustainability, the facilities in their halls of residence and the influence of others around them. Participants were selected through convenience sampling.

### ***Ethical Concerns***

Many participants were known to the interviewer who was a third year student at the university but not living in halls of residence. Ethical permissions were gained through Bournemouth University’s research ethics review process (no. 30885). Informed consent, from participants, was ensured by informing participants about the aims of the research, their role within it, the benefits and how the results will be utilised. Participants were able to ask questions and reminded of their capacity to withdraw at any point during the interview, that the research was voluntary, and that participation would not have an impact upon their studies or accommodation provision. Anonymity was protected through the elimination of identifiable details.

### ***Analysis and Presentation of Data***

Data were collected as audio recordings, accompanied by notes of body language and other inaudible responses. Data were manually transcribed. Braun and Clarke’s (2006) framework for thematic analysis was used to generate themes from the data.

Analysis began with immersion into the data to identify patterns and initial areas of interest before formal coding. Themes were identified inductively, aiming to stay as accurate to the respondents’ perceptions as possible.

### **Findings and Discussion**

We present four themes exemplifying the twelve participants’ perceptions of the recycling strategy of an English university’s hall of residence developing an understanding of the interconnections between the themes within recycling strategies and student perceptions of these.



**Figure 1 Student perceptions of recycling strategies**

***Limited by perceived lack of ability to behave sustainably***

At a macro level, there is broad approval of sustainability and therefore, a pressure to behave in an appropriately sustainable manner. Participants acknowledged this pressure but felt limited by their perceived lack of ability to achieve it, predominantly because of cost and convenience:

*When I think of something sustainable, I think of it as being like oh my gosh it's £10 whereas if I got something that wasn't sustainable it would only be like £2. I just think of it [sustainability] as being so highly-priced.*

This creates difficulties for sustainable behaviour because students, ‘need to go for cheaper alternatives and those cheaper alternatives might not always be sustainable’ (Participant M).

Convenience was also a persistent theme, with a suggestion that it was, at times, more convenient to behave unsustainably, ‘some things we do recycle and some things we don't, and it basically depends on what is easier to clean’ (Participant D).

***Limited by facilities***

Participants felt that the recycling facilities, especially the size, location, and labelling and colouring of bins available to them, hampered their efforts to behave sustainably. Participants spoke of the bins provided in their kitchens being too small ‘the [recycling] bins we have in our flat are absolutely rubbish they aren't big enough’. Consequently, participants made frequent trips to the bin store, increasing the inconvenience of recycling leading to behaviour which ‘just uses whichever bin is free’.

The location of bins was also a limiting factor. Although the provision of a recycling and general waste bin in kitchens was well established, there were inconsistent arrangements within bedrooms. Many students were only supplied with a general waste bin for their bedrooms meaning recycling often did not happen, ‘sometimes it's too much work to go to

*the kitchen and put the box in the recycling bin, so I just throw it away'.*

Another factor limiting recycling was bin labelling and colouring. Despite widespread agreement that *'green bins identify it as recycling'*, this pattern did not occur with the bins provided in their flats.

A solution to randomly coloured bins for Participant D has been demarcation, with some that *'are marked out for recycling bins'*. Whilst this is the case in some halls of residence, bin labelling is inconsistent, and in some cases incorrect, or labelled confusingly:

*'in the kitchen, we have two bins. We've got food waste and then recycling, and people are really confused. Sometimes they put things into the recycling because it's not food but it's also not recycling. So, either the bins need to be better labelled or maybe there needs to be a third bin.'*

Consequently, many reported that inconsistent colouring and labelling of bins made it hard to distinguish between the general waste and recycling bins provided.

### ***Limited by a lack of confidence***

At an individual level, participants feel unconfident in their knowledge of recycling. Participants wanted additional information and felt frustrated with the basic information provided in halls of residence. Many participants preferred posters which, in place of the text, had *'pictures of what is recyclable ... like a bag of crisps, everyday objects'*. However, posters were infrequent, wrongly placed *'in the common room and a lot of people don't go in there'* (Participant G), and inconsistent *'I don't know if we still do, but we used to have posters'* (Participant J). Participants are looking for detailed, engaging posters and want these better placed.

When faced with the sudden transition towards living independently that university brings, participants wanted alternative role models to take the parental role. However, hall staff were not providing the support students are seeking. They appeared to lack knowledge or be unapproachable or uninterested, *'it wouldn't be my first thought to ask them...it's not really knuckled down we need to recycle, we need to do this. So, it's just there really'* (Participant E). Overall, participants believe *'it isn't (hall staff) main concern [...] I haven't seen it as a priority (for them)'*.

There was a general consensus between participants that as a result of the basic information, lack of role models and other societal factors, their lack of knowledge stemmed from finding sustainability to be a confusing concept.

There was also confusion *'as to what types of plastic can be recycled'*. Although there are schemes in place such as ASTM International's Resin Identification Coding System which provides the numbered triangles found on plastic containers usage was low *'it's really confusing, and you have to actually look, I think it's a triangle or something but what that means I don't know'*. Complexity reduces involvement but increasing knowledge and awareness is likely to increase recycling rates in these halls of residence.

### ***Self-limitation***

Participants also lacked confidence in their knowledge of recycling and found the concept confusing but only one did any additional research when arriving at their halls of residence while others *'just carried on doing what I was doing before'* (Participant M).

This self-limitation is reflected in the participants' attitudes towards recycling but not in their environmental attitudes. Most participants held pro-environmental beliefs but this did not result in

recycling *'I will buy loose onions and stuff because for me it's just more financially friendly just because it goes to waste if I buy a big multipack [in plastic]'*. Supporting the suggestion cost is important.

Participants also limited each other. Peer influence strongly determines student recycling behaviour and participants reported the positive and negative effect of peers and flatmates. There were cases in which the effect of others in accommodation encouraged participants, *'They are pro-recycling they support it [...] most people try'*. Nevertheless, the opposite was also true. Participant B recycled before attending university, however, felt, *'my flatmates didn't do it ... they're just throwing rubbish into my recycling bin so I may as well claim it all as rubbish'*. This student had all the necessary facilities, attitudes and knowledge, yet, stopped recycling due to peer behaviour.

Participants feel limited in their ability to recycle in many ways:

- a perceived lack of ability to achieve sustainable ideals
- financial costs
- perceived convenience associated with not recycling
- by the limited size, location and labelling of bins
- by the infrequency, inconsistency and basic level of information supplied
- the lack of engaged role models to establish recycling behaviours

However, participants, at times limited themselves and each other through a lack of research, engagement and, in some cases, negative attitudes towards recycling.

## **Conclusion**

This study explored student perceptions of the recycling strategies of an English university's halls of residence. The literature suggested four themes to which students' recycling behaviour could be attributed. These were a combination of the influence of others, education and information, physical structures, and attitudes and motivations. Twelve semi-structured interviews were conducted, and then analysed using reflexive/organic thematic analysis, to explore student perceptions.

Participants found themselves to be limited in recycling through their perceived lack of ability to be sustainable, their knowledge, physical facilities alongside limiting themselves, and each other, through a lack of interest in recycling. These findings corroborate existing research, especially surrounding the interconnectedness of recycling motivations. Involvement in recycling is low for a number of personal and contextual reasons. Most participants held generic pro-environmental beliefs and values.

Although this research is not generalizable, and the following recommendations are deliberately tentative to allow accommodation providers flexibility to consider local factors, this paper does offer techniques to enhance the recycling rates of future generations. Halls of residence are well placed to increase students' sustainable behaviours on a considerable scale.

- recycling strategies should aim to provide a consistent and adequate provision of bins across the estate with clear labelling and colouring
- strategies should be established to empower students to make full use of their existing knowledge, supported by information campaigns to counter ideas that sustainability and recycling are costly and inconvenient
- students need to engage with recycling strategies. Whilst not a solution to the current climate crisis, increasing recycling represents an important step in the process.