

# Campus foodservice experiences and student wellbeing: An integrative review for design and service interventions

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## Highlights

- Reviews multidisciplinary work on eating at/in university and on student wellbeing.
- Contends that foodservice provision enhances students' university experiences.
- Identifies links between on-campus foodservice experiences and student wellbeing.
- Expands focus with co-workspace, restorative servicescape and hospitality literature.
- Offers recommendations for research, design and service-led interventions.

## Abstract

Based on a review of multidisciplinary literature, this paper explores the potential links between foodservice provision on university and college campuses and students' wellbeing. The paper contends that on-campus foodservice provision contributes to positive student experiences, which can improve their overall wellbeing. It is argued that the majority of existing research on university foodservice has focused either on satisfaction with products, services or service environments, or on the nutritional intake of students consuming on-campus food, including factors shaping their eating habits and their health implications. Research considering interactions between student wellbeing, food and drink has focused primarily on eating whilst *at* university (i.e. enrolled on a programme of study) rather than eating *in* university (i.e. accessing food on campus). Given the relative absence of literature on this topic, the paper draws on insights from co-workplace design, service experience and hospitality management to identify areas for further research and constructive interventions.

**Keywords:** Campus; College; Foodservice; Students; Wellbeing; University

## Introduction

The higher education market has become globalised and competitive (Ball, 2012; Staunæs, Brøgger, & Krejler, 2018; Verger, Steiner-Khamsi, & Lubienski, 2017). Educational providers are increasingly being scrutinised according to international systems of performance measurement, and their offerings are evaluated on criteria similar to those in other service sectors – including the quality of the experience, satisfaction and value for

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money (Naidoo, 2016). Student experience surveys encompass the on-campus environment, community atmosphere and social life (THE, 2018). Studies have also pointed to the role of 'atmosphere' in having a central role on students' choices of university (Sodexo, 2017). Given the universal role of eating and drinking in social and cultural practices, food provision inevitably plays a significant part in student life and consequently informs their subsequent evaluations. However, beyond a narrow focus on satisfaction, it is important to consider the broader impacts of on-campus food provision on students' wellbeing, which shapes their experiences and perceptions.

Students' transition into and progression through higher education introduces numerous health risks (Denovan & Macaskill, 2017; Macaskill, 2018). Discussions concerning student wellbeing often focus on subjective perceptions, and mental health in particular; nevertheless, researchers have extended this, considering the importance of physical wellbeing linked to broader lifestyle-related choices including eating and drinking (Blank, Connor, Gray, & Tustin, 2016; Papier, Ahmed, Lee, & Wiseman, 2015; White, Slemp, & Murray, 2017). The risks to students' physical and mental wellbeing, and subsequently to the institutions competing in a global marketplace, have driven educational providers to develop policies and practices to improve students' experiences (UniversitiesUK, 2015; White et al., 2017).

Existing research has highlighted the potential impacts of foodservice provision in institutional settings on users' health and wellbeing (Edwards, Hartwell, & Brown, 2013; Leung, Barber, Burger, & Barnes, 2018; Mikkelsen, 2011; Symonds, Martins, & Hartwell, 2013). Access to food in workplaces can offer short-term emotional comforts (Hartwell, Edwards, & Brown, 2013a, 2013b), and it can shape work-based relations (Lindén & Nyberg, 2009; Lugosi, 2014, 2017; Nyberg & Doktor Olsen, 2010). However, institutional foodservice can also be a source of stress, particularly for individuals with allergies, specialist dietary needs, and people from different nationalities encountering unfamiliar foods, with few suitable alternatives (Brown, Edwards, & Hartwell, 2010; Edwards, Hartwell, & Brown, 2010; Olarnyk & Elliott, 2016). Accessing food in places of work, including universities, may also pose other risks insofar as healthy options may be limited, with people consequently making poor food choices in these contexts (Price et al., 2016; Price, Bray, & Brown, 2017; Pridgeon & Whitehead, 2013). Workplace eating is frequently associated with poor quality food and bad food choices, which have negative consequences (Kjøllestad, Holmboe-Ottesen, & Wandel, 2011). Nevertheless, studies have demonstrated that workers eating in well managed staff canteens were more likely to consume healthier food, which contributed to better health (Geaney, Harrington, Fitzgerald, & Perry, 2011; Roos, Sarlio-Lähteenkorva, & Lallukka, 2004; Vinholes, Machado, Chaves, Rossato, Melo, Fuchs, & Fuchs, 2018). Workplace and university canteens have also been identified as potentially important sites for health interventions (Geaney, Kelly, Greiner, Harrington, Perry, & Beirne, 2013; Peterson, Duncan, Null, Roth & Gill, 2010; Thorsen, Lassen, Tetens, Hels, & Mikkelsen, 2010). Significantly, the majority of research on workplace eating has focused on healthy food intake rather than the ability of the foodservice environment to contribute to people's broader wellbeing.

A small number of studies have referred to the potential links between university foodservice provision, student experiences and wellbeing, although the evidence is limited (Binge, Xufen, Guoying, Chunyue, & Tingting, 2012; Gramling, Byrd, Epps, Keith, Lick, & Tian, 2005; Ruetzler, Taylor, & Hertzman, 2012; Tian, Gramling, Byrd, Epps, Keith, & Lick, 2008; Tian, Trotter, Zhang, & Shao, 2014; Tian, Trotter, & Yu, 2015). Given the growing internationalisation and market competition amongst universities to attract and retain

students, and to enrich their learning, it is timely and important to consider how on-campus food provision, including the food consumption context, may influence their university experiences and their wellbeing.

A number of studies have examined students' perceptions of on-campus foodservice provision (cf. Ali, & Ryu, 2015; El-Said, & Fathy, 2015; Joung, Kim, Choi, Kang, & Goh, 2011; Joung, Lee, Kim, & Huffman, 2014; Kim, Lee, & Yuan, 2012; Kim, Moreo, & Yeh, 2006; Lam, & Heung, 1998; Shanka, & Taylor, 2005). However, this body of work has largely been quantitative, focusing on issues such as price, food quality and satisfaction with service rather than examining links between food(service), students' broader experiences and their wellbeing. Given the gaps in knowledge, this paper develops an 'integrative literature review' (Torraco, 2005; 2016), which assembles, evaluates and synthesises existing knowledge regarding the contribution of the university campus foodservice environment and food provision to students' wellbeing, with the aim of identifying future avenues for research and good practice that may inform facilities and service development decisions. Moreover, the limited existing research, and the objective of generating practical recommendations, necessitates that the review moves beyond studies of foodservice and health, and draws more widely from hospitality experience management, co-workspaces, and educational design literature. Synthesising perspectives from these wider areas helps to maintain the conceptual focus of the review whilst utilising theoretical and practical insights from these fields to identify integrative lines of enquiry and constructive interventions.

## **Review scope and procedures**

Torraco (2005; 2016) argued that a core feature of integrative literature reviews was a clear overview of the sample including the search parameters used to identify and order the literature used in the review. This literature review primarily used EBSCO's databases. The initial search used the *Hospitality & Tourism Complete* database but this was widened to include: *Academic Search Complete*, *Business Source Complete*, *Education Abstracts*, *PsychARTICLES* and *PsychINFO* to cover a broader range of disciplines and publications. The initial search was limited to titles and abstracts of works published over a 20 year period between the 1st of January 1997 and the 31st of December 2017. Search terms used individually and in combination included: 'university', 'campus', 'student', 'wellbeing' and 'food\*' (including derivative terms such as foodservice). See Table 1 for a summary of key search terms and returned items.

The initial returns were then reduced to English language, peer-reviewed, academic journals and the results were extracted into spreadsheets. A 'staged review' process was adopted (see Torraco, 2005; 2016) and in the first cycle of analysis, the titles and abstracts were reviewed for relevance. In subsequent analysis cycles the contents of relevant sources were read to identify focus, scope and methodology.

During the initial review of individual articles, relevant citations in the documents were sourced and included in the review. This was augmented by further searches using Google Scholar, using the same search terms identified above. The relatively limited amount of research examining links between on-campus university foodservice and students' wellbeing led to the review expanding further, drawing on and incorporating insights from existing reviews in the fields of hospitality studies (e.g. Lynch, Germann Molz, McIntosh, Lugosi & Lashley, 2011), experience management and design (e.g. Zomerdijk & Voss, 2010), services research, especially on restorative servicescapes (e.g. Rosenbaum & Massiah, 2011), co-work (e.g. Bouncken & Reuschl, (2018), and learning spaces (e.g. Harrison & Hutton, 2014). As

stated at the outset, the objective of this integrative approach was to maintain the conceptual focus of the review on university campus catering and student wellbeing, whilst synthesising knowledge from related fields to identify both areas for future research and practical recommendations for design and service-focused interventions.

Database	Terms	Date	Limit	Initial number of items returned	Filter 1	Filter 2	Reduced number of items for analysis
H&T	University, Food	1997-2017	Abstract	3703	Academic Journal	Peer-reviewed	398
H&T	University, Food	1997-2017	TI university AND AB food OR TI food AND AB university	677	Academic Journal	Peer-reviewed	199
H&T	University, Food*	1997-2017	TI university AND AB food* OR TI food* AND AB university	865	Academic Journal	Peer-reviewed	215
H&T	University, Foodservice	1997-2017	TI university AND AB foodservice OR TI foodservice AND AB university	180	Academic Journal	Peer-reviewed	22
ASC, BSC, Edu Abs, H&T	University, Food*	1997-2017	TI university AND AB food* OR TI food* AND AB university	4569	Academic Journal	Peer-reviewed	1825
ASC, BSC, Edu Abs, H&T	Campus, Food*	1997-2017	TI campus AND AB food* OR TI food* AND AB campus	920	Academic Journal	Peer-reviewed	209
ASC, BSC, Edu Abs, H&T	Campus, Food*, Wellbeing	1997-2017	TI campus AND AB food* OR TI food* AND AB campus AND AB wellbeing	551	Academic Journal	Peer-reviewed	71
ASC, BSC, Edu Abs, H&T, PsychARTICLES, PsychINFO	Student, Foodservice, Food*, Student, Wellbeing	1997-2017	TI student AND AB foodservice OR TI food* AND AB student AND AB wellbeing	182	Academic Journal	Peer-reviewed	25

Table 1. Summary of key search parameters and items returned

## Student wellbeing and university food(service)

Research has shown that university life introduces a series of risk factors that have the potential to impact on students' health and wellbeing, particularly for students living away from home for the first time. These include stress related to university work, social pressures, financial burdens and (in)accessibility of good quality food, which are compounded by other factors such low levels of food literacy (Al-Khamees, 2009; Berg, Frazier, & Sherr, 2009; Deshpande, Basil, & Basil, 2009; Kernan, Bogart, & Wheat, 2011; LaCaille, Dauner, Krambeer, & Pedersen, 2011). Numerous studies have examined the relationships between student life and unhealthy eating, although the focus of much of this research has been on eating whilst *at* university (i.e. enrolled on a programme of study) rather than eating *in* university (i.e. accessing food on campus) (see e.g. Tanton, Dodd, Woodfield, & Mabhala, 2015; Vella-Zarb & Elgar, 2010).

Much of the research examining interrelationships between university campus provision of food has focused on one of two areas: firstly, students' evaluations of the food(service) offering (Ali & Ryu, 2015; El-Said & Fathy, 2015; Ham, 2012; Joung, Kim, Choi, Kang, & Goh, 2011; Joung, Lee, Kim, & Huffman, 2014; Joung, Choi, & Wang, 2016; Kim, Lee, & Yuan, 2012; Kim, Moreo, & Yeh, 2006; Kong, & Mohd Jamil, 2014; Lam & Heung, 1998; Park, Lehto, & Houston, 2013; Shanka & Taylor, 2005); or secondly, on the nutritional intake of students consuming on-campus food, including factors shaping their eating habits and their

health implications (Ali, Jarrar, Abo-El-Enen, Al Shamsi, & Al Ashqar, 2015; Fernández Torres, Moreno-Rojas & Cámara Martos, 2015; Symonds, Martins, & Hartwell, 2013). For example, over half of the students (51.8%) in Hilger, Loerbroks and Diehl's (2017) study ate at the university canteen. Perhaps more importantly, 78.4% of these said that eating together with students was the main reason for consuming there, with time saving (75.1%) and proximity to university (74.8%) being the next two. Guagliardo, Lions, Darmon and Verger (2011) argued that students from lower socio-economic backgrounds were less likely to use campus canteens. Furthermore, healthy food choices in canteens were shaped by the quality of the food, its pricing, and the nutritional information provided to consumers (cf. Cárdenas, Benziger, Pillay, & Miranda, 2015; Guagliardo et al., 2011; Lachat, Huybregts, Roberfroid, Van Camp, Remaut-De Winter, Debruyne, & Kolsteren, 2009; Michels, Bloom, Riccardi, Rosner, & Willett, 2008). Such studies do not address the direct relationship between on-campus catering and wellbeing more generally; nevertheless, they point to the important role of on-campus catering facilities in student life, including as a place to influence healthy eating (see Doherty, Cawood, & Dooris, 2011).

A relatively small number of studies have explored the links between on campus foodservice and the student experience, identifying direct and indirect relationships (Andaleeb & Caskey, 2009; Binge et al., 2012; Tian et al., 2015; Gramling et al., 2005; Tian et al., 2008; Tian et al., 2014). Foodservice spaces appear to have direct and explicit roles in facilitating social interactions, whilst also acting as functional spaces, satisfying the need to eat and drink and, in principle, providing places to study. The ability of campus facilities to provide satisfactory services, products and experiences mean basic needs for satiation are met and they can continue to perform their student responsibilities i.e. to attend classes and learn. Trunta (2009) pointed to more subtle relationships: students who were forced to go off campus to source food were less likely to return to campus, suggesting that inappropriate products and services undermined student engagement. However, other studies pointed to broader and more indirect impacts of foodservices on student experiences.

Some commentators have been more speculative in claiming that good quality foodservice provision can contribute to the overall college experience, but offered limited evidence (Ham, 2012). Others were more explicit in demonstrating that food and drink outlets were an essential part of on-campus life; therefore, students' positive evaluations of products and services contributed to their positive overall evaluations of their university, and the sense of value for money offered by their educational experience (Tian et al., 2008; Tian et al., 2014).

The underlying theme in existing studies is that campus canteens were culturally functional spaces essential to maintaining sociality among students. Some went further, arguing that, by sustaining the social fabric of university cohorts, on-campus foodservice contributed to student retention (Leone & Tian, 2009; Trunta, 2009). However, these studies primarily focused on the outcomes (i.e. satisfaction and retention) but did not identify the factors that made some on-campus foodservice facilities successful. In contrast, studies examining aspects such as expectations and the impacts of design, atmosphere or food quality on student experiences in cafeteria did not explore empirically the wider links to overall outcomes such as students' satisfaction with the university campus (Hassanain, Mathar, & Aker, 2016; Nadzirah, Karim, Ghazali, & Othman, 2013; Wooten, Lambert, & Joung, 2018). Given the lack of research examining the links between students' engagement with on-campus foodservice settings and their broader wellbeing, the remaining parts of this paper draw on insights from co-workspace design, restorative service spaces and hospitality management to consider how they could be utilised to enhance students' experiences.

## **Campus foodservice as co-work spaces**

Changes in the economy and the nature of work have led to evolving workplace designs and the emergence of new types of co-workspaces (Bouncken & Reuschl, 2018; Gandini, 2015). These workspaces are characterised by flexibility and the accommodation of mixed uses and users (Davis & Cook, 2017; Wagner & Watch, 2017). This includes leisure activities and functions such as eating and drinking operating in close proximity to, and often intermixed with, work tasks. This also means that designs draw on hospitality-related notions of comfort and homeliness – gestures of welcome seeking to make places convivial and inclusive (see e.g. Erlich & Bichard, 2008; Hazan, 2016). Moreover, designs, furnishing and layout accommodate different forms of work-related activity including meetings and interactive work, alongside solitary tasks requiring private space, some of which enable activities such as phone calls and technology-mediated meetings, as well as silent, stationary, focused tasks requiring minimal disruption.

Food and drink-related functions within emerging forms of office design can act as drivers of social interaction. For example, ‘water coolers’ become focal points of interaction, although photo copiers and printers encouraging collective dwell time might also serve similar functions (cf. Fayard & Weeks, 2007; Lugosi, 2014). Creating such meeting points, around some aspect of the meal assembly or service, where consumers have to cooperate or at least interact to complete the service process, could form part of the hospitality operation model. However, these only become facilitators of positive social interactions if users observe appropriate rules and norms, for example regarding queuing and maintaining the collective value for instance by not making a mess or monopolising shared resources (see Lugosi, 2017). According to Waber, Magnolfi and Lindsay (2014), some organisations have purposefully removed individual coffee machines, replacing them with larger cafés which then function as ‘collision zones’ facilitating interaction among different users. There is an inherent risk to assuming that this impacts equally on all staff; also that interactions are constructive. Nevertheless, these point to the scope of organisational-level initiatives to drive behavioural change and facilitate social interaction.

This emerging paradigm for workspace design does not assume a singular form, but its applications have recurring themes, they are: a) design-driven, suggesting that these places are created as part of strategic investment and planning for the use of spaces; b) an amalgamation of different functional areas, with furnishings and layout to support the disparate array of activities highlighted above; and c) flexible, insofar as they allow users to reconfigure space, for example by moving furniture to suit their task-specific needs. There is also an underpinning assumption that there is a technological infrastructure present in these spaces, allowing users to access essential services such as charging points and reliable wifi.

Contemporary designs of university campuses have adopted many of the features of co-workspaces (see Coulson, Roberts, & Taylor, 2018; Harrison & Hutton, 2014; Nordquist & Laing, 2015). There has been substantial growth in the development of ‘social learning spaces’, which include a variety of seating types and arrangements, facilitating social and intellectual work. Within discussion of social learning environments, food and drink related activities are frequently cited as core activities alongside learning and interaction. Moreover, they are highlighted as factors driving social interaction, some describing them as ‘magnets’, bringing people together (Francisco, 2006), and ‘catalysts’, helping to create a ‘buzz’ (Harrison & Hutton, 2014), but limited detail is provided on how to manage this effectively and how food provision should operate. Certain studies do however highlight specific initiatives e.g.

co-designing the facilities through participative design (Lundström, Savolainen, & Kostainen, 2016), and encouraging students to submit recipe ideas as a way to promote their affective and practical engagement (cf. Feldman, Hartwell, & Brusca, 2013; Francisco, 2006).

Harrison and Hutton (2014), citing a 'concept note' from Aga Khan University, also point to a broader initiative: promoting students to cook and eat together and to embed these activities in the curriculum. Shared cooking and eating activities have been used within pedagogic strategies to develop intercultural knowledge (e.g. Sommer, Rush, & Ingene, 2011). It is possible to extend this by designing food-related activities into the curriculum to facilitate social cohesion and inclusion, and to develop interpersonal and project management skills. This could subsequently help demonstrate to university managers the wider potential contributions of foodservice facilities and catering expertise to the student experience, beyond providing 'auxiliary' services. Hospitality management and culinary arts schools have used this model to develop essential employability competencies amongst their students. These operators face pressure to broaden the uses and users of these facilities to generate income and justify their costs (Lugosi & Jameson, 2017). Consequently, in many institutions, the academic and operational staff of these programmes have already begun to offer activities such as cookery schools and team building management development services, to external clientele, on a commercial basis. They thus have experiences of using their skills, and resources, including the facilities and staff, which operators in other institutions could draw on. Large scale adoption of this in universities without culinary arts or hospitality management programmes may be challenging; but it could certainly be a novel, value-adding initiative with the potential to contribute towards students' experiences, employability and their social integration.

### **Campus foodservice as restorative servicescapes**

Co-workspace and learning space designs accommodate solitary activities and the blurring of the work/leisure divide. Nevertheless, many of these design initiatives foreground 'productivity' and interactions. However, it is equally important to consider the role of solo consumption and, what may seem to observers as, unproductive, reflective behaviours, which can also contribute to students' positive on-campus experiences and to their wellbeing. There are two related but distinct sets of issues to consider here: first, how reflective and restorative qualities can be incorporated into foodservice experiences; and second, how solo consumption is accommodated.

Restorative servicescapes can take diverse forms, involving a variety of activities (Rosenbaum, 2005; 2009a; 2009b; Rosenbaum & Massiah, 2011); however, for the current discussion the emphasis will be on the aesthetic dimensions, and in particular how users' attention is directed. The incorporation of visual stimuli, particularly those that inspire fascination and sustained gaze, help consumers remove themselves, albeit temporarily, from their everyday lives. Natural environments and landscape views offer such contemplative, aesthetic experiences (Han, 2007). These may be difficult to provide in campus foodservice settings, but visual stimuli in the forms of artwork or imagery via screens could provide similar effects.

A second, related issue concerns how solo users are accommodated in foodservice spaces, both for the purposes of eating but also in using their time there in a more contemplative manner. The public consumption of hospitality, and café culture in particular, often operates on the basis of consumers being 'alone together' (see Warner, Talbot, & Bennison, 2013; Shapira & Navon, 1991). Solo consumers regularly engage in various

strategies to territorialise their own spaces, creating boundaries between themselves and others with coats or bags, and using headphones, books, magazines, computers and phones to signal an unwillingness to interact (Laurier, Whyte, & Buckner, 2001). The presence of solo consumers raises further questions concerning the flexibility of the furnishing and layout to accommodate them, and the possibility for having specialised seating arrangements for this type of user. Hay (2015) for example notes the rise of solo dining, including the potential stigma associated with their experiences (see also Meiselman, 2009). Hay (2015) and Jonsson and Ekström (2009) also highlighted several design solutions to meet their needs. These include linear, bar-type seating arrangements, and dining pods, which do not stigmatise solo diners in the same way as sitting alone on a table intended for larger parties. Foodservice operators may deliberately use communal tables and seating arrangements to facilitate interactions between patrons (see Brun, 2014; Jonsson & Ekström, 2009; Perlman, 2013). In many Asian foodservice venues, the *maitre d'* assigns patrons to tables with others and table sharing is normalised. Social media and phone apps can also offer ways to find dining partners (Hay, 2015; Jonsson & Ekström, 2009; Urie, 2016).

### **Campus foodservice and hospitableness**

A final perspective to consider concerns the human aspects of hospitable spaces, the experiences they engender, and the subsequent impact on students' wellbeing. Within traditionally defined conceptions, the host had a number of culturally defined roles: ensuring the wellbeing of their guest, providing for their social, physical and psychological needs (Lashley, 2015). Arguably, the nature of the interaction within a commercial 'quick-service' environment such as a campus foodservice outlet changes the role of the host. Despite continuing to be an important 'touchpoint' between provider and consumer, the depth of interaction is likely to be limited by the nature of the transaction. Nevertheless, multiple studies have shown that: a) sincere, affective hosting relationships can operate in a commercial environment (Erickson, 2009; Lashley, 2015); and b) in some commercial settings, frontline service staff often assume the role of psychologists and counsellors, listening to and responding empathetically to customers' needs (Fox, 1993; Rosenbaum, 2006; 2009a; Rosenbaum, Ward, Walker, & Ostrom, 2007).

Commercial organisations adopt different strategies for trying to encourage their staff to develop empathetic host competencies and to perform the 'emotional labour' required for hosting roles (Hochschild, 1983). Some have suggested adopting psychometric testing to support recruitment of colleagues who have innate hospitable capacities; others point to organisational efforts to instil hospitable service qualities through internal branding and the ritualising of behavioural norms for their staff (cf. Dawson, Abbott, & Shoemaker, 2011; Dekker, 2018; Erhardt, Martin-Rios, & Heckscher, 2016; Erickson, 2009; Lashley, 2015; Van Rheede & Dekker, 2016). The challenge and opportunity for university foodservice operators is to embed a culture of hosting among frontline staff, in which they: a) make students feel welcome; b) remain sensitive that their hospitableness, in relatively small gestures of welcoming, listening and empathy in everyday interactions, is part of their duty of care towards potentially vulnerable people; and c) are a vital part of the university and the experiences it provides.

There is an inherent tension in attempting to foster these behaviours and attitudes in frontline staff, especially if they do not feel their emotional labour is recognised, or if these additional responsibilities are perceived as job enlargement (the extension of responsibility without reward or recognition). However, their hosting roles could be cultivated by, firstly,

stressing that developing emotional labour competencies is a form of upskilling; secondly, their roles in welcoming the 'guests', and looking out for their wellbeing, is empowerment. This is where in-house catering providers have a unique opportunity to engage their staff. Outsourcing has become a common but contentious operational strategy for university foodservice provision (cf. Glickman, Holm, Keating, Pannait, & White, 2007). Outsourcing may offer cost savings to universities but it may also result in decreasing control and flexibility in service provision as institutions no longer employ frontline staff directly. In-house catering providers are employees of the university and, in principle, part of the same culture, rather than being outsourced human capital assets. Given the central role that the hospitality they provide in foodservice transactions potentially plays in students' satisfaction (Tian et al., 2008; 2014), their contributions should be recognised in their job descriptions, professional development and in workplace cultures that reward their hospitable competencies.

Finally, it is also worth stressing that students could be encouraged to assume hosting behaviours. In part this could be achieved through the food offering. For example, catering providers could create 'platters' and other 'shared/sharing' dishes, or multi-buy meal offers, which incentivise groups of customers to purchase food together. It also induces students to invite other students to participate in shared food experiences, which could help to facilitate ongoing interactions and constructive encounters, as networks of consumers form reciprocal relations and ritualise collective experiences of campus living.

## **Conclusions**

Previous research has shown that on-campus foodservice, like any other workplace food provision, plays an important role in users' wellbeing, specifically when it provides access to good quality, healthy food, supports positive food choices, and facilitates positive social interactions. Within a university setting, on-campus foodservice has been shown to contribute to the overall student experience, although the literature has provided limited information on the practices and components that make for positive experiences in on-campus foodservice outlets. Nevertheless, a substantial body of research has explored factors shaping customer satisfaction regarding foodservice provision that has evaluated generic dimensions such as choice, food quality, service, value for money etc. However, in light of the gaps in knowledge, there is substantial scope to research students' behaviours in foodservice outlets, including how these are entangled in their wider campus and university experiences.

This review has suggested that future research could draw on existing studies of co-working and student learning spaces, which have examined how different solitary and group focused work and social practices are performed in the same space. This body of work has proposed design-based solutions that are flexible and accommodate disparate users and uses. The same insights could be deployed in strategic investments in on-campus foodservice facilities and services. Moreover, this could be underpinned by context-specific research on who is using existing facilities, how, when and why.

As a starting point it is useful to evaluate the social and task dimensions of users' behaviours: specifically, whether the behaviours are solitary or group focused, and whether they are primarily leisure or work focused. These dimensions are summarised in Figure 1 below. It is also important to evaluate the temporal dimensions of their consumption behaviours, particularly, how they shift at different times of the day, week and how they change over the annual university teaching cycle. As part of such research, it is necessary to map 'consumer journeys' – the sequence of activities consumers go through as part of their engagement with a service organisation, and to identify 'touchpoints' – when customers

interact with humanic (staff) and mechanic (furnishings and atmospheric) elements of service provision (Ponsignon, Durrieu, & Bouzdine-Chameeva, 2017; Wall & Berry, 2007; Zomerdijk & Voss, 2010). Finally, it is necessary to capture the benefits that users gain from on-campus foodservice, and to identify factors that detract from their experiences, including their impacts on wider university experiences.

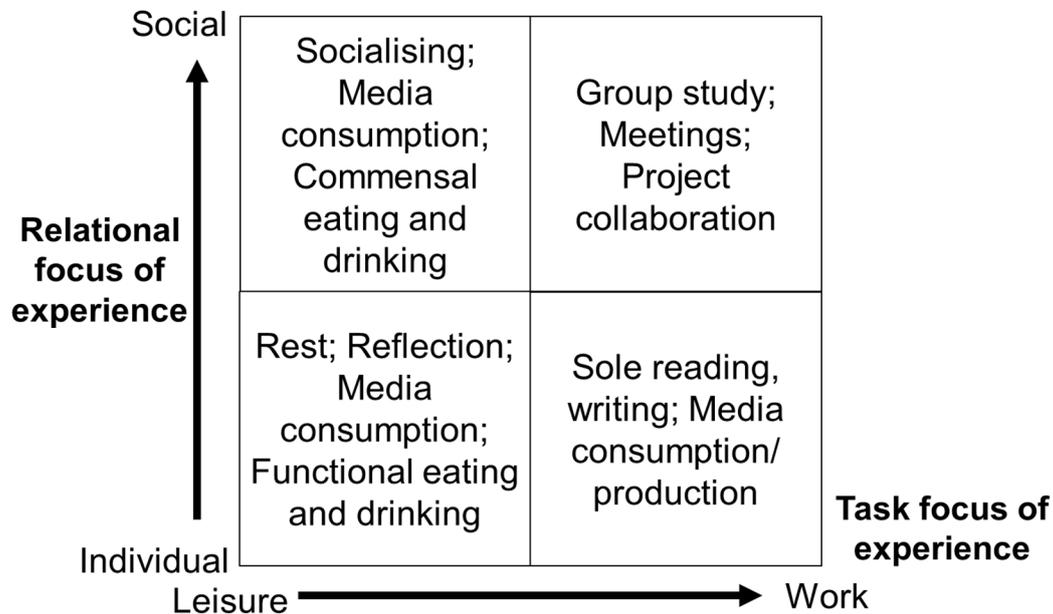


Figure 1. Framework for evaluating relational and task dimensions of campus foodservice experiences

Understanding users’ behaviours, attitudes and their outcomes, can help to inform strategic investment in on-campus foodservices spaces and services. This may involve design-based investment to facilitate positive experiences for those seeking to work or relax either in groups or alone; in all cases potentially supporting users’ wellbeing. However, this review also suggested that the facilities and expertise of foodservice providers could be drawn into the curriculum and student experience to develop intercultural knowledge as well as employability competencies. Moreover, understanding students’ behaviours and attitudes can help to design operational and human resource solutions, including: nurturing work cultures among frontline staff in which hosting behaviours are embedded; and encouraging co-creation amongst users, for example by involving them in menu suggestions, but also incentivising students to adopt hosting roles through promotional activities.

### Recommendations

- Conduct studies of uses/users to identify different functions and rhythms of behaviours (mapping consumer journeys and identifying key touchpoints).
- Based on insights gained from studying uses/users, consider zoning foodservice spaces – using mechanic elements – including furnishing and layout – to guide and support appropriate behaviours. When designing functional zones, ensure that single/group and leisure/work uses are accommodated.
- Highlight for university managers the important contributions that foodservice has on the student experience, stressing its multiple roles in supporting students’ everyday

activities as co-work, learning and restorative spaces, and its potential role in promoting healthy food choices and broader wellbeing.

- Promote the role of on-campus foodservice as a strategic investment for the university – particularly in developing design-based initiatives to improve facilities.
- Engage users as co-creators – promoting their involvement in product and service development (e.g. through their inputs in menu and services design), and in strategic design-based investments in on-campus foodservice.
- Use human resource strategies to develop hosting practices among frontline staff during key touchpoints.
- Use food promotions to initiate group interactions and promote hosting behaviours among students (e.g. shared/sharing plates and multi-buy meal deals that encourage group consumption).
- Consider embedding foodservice-related activities into the curriculum to promote inter-cultural dialogue and inter-cultural competencies alongside broader employability skills.

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