

Student-staff co-creation in higher education: an evidence-informed model to support future design and implementation

Mollie Dollinger & Jason Lodge

To cite this article: Mollie Dollinger & Jason Lodge (2019): Student-staff co-creation in higher education: an evidence-informed model to support future design and implementation, Journal of Higher Education Policy and Management, DOI: [10.1080/1360080X.2019.1663681](https://doi.org/10.1080/1360080X.2019.1663681)

To link to this article: <https://doi.org/10.1080/1360080X.2019.1663681>



Published online: 05 Sep 2019.



Submit your article to this journal [↗](#)



Article views: 84





View related articles [↗](#)



View Crossmark data [↗](#)



Student-staff co-creation in higher education: an evidence-informed model to support future design and implementation

Mollie Dollinger ^{a,b} and Jason Lodge ^c

^aStudent Success, La Trobe University, Melbourne, Australia; ^bCentre for the Study of Higher Education, The University of Melbourne, Melbourne, Australia; ^cLearning Science, The University of Queensland, Brisbane, Australia

ABSTRACT

Increased marketisation and competition has renewed interest in how universities can partner, or co-create, with students. To address this, and further conceptualise a model of co-creation across inputs, processes, and outcomes, this article summarises the findings from 10 different case studies of student-staff co-creation (e.g., co-producers of learning resources, peer mentors, co-creators of the curriculum) in the Australasian higher education context. Our data include qualitative survey responses ($n = 97$) and interviews ($n = 35$) with students and staff. Based on these data, we present an evidence-informed model of co-creation that elucidates the key considerations in the co-creation process. The model highlights and distinguishes two dual-value creation dimensions that underlie co-creation, co-production, and value-in-use. The result is a model of co-creation in higher education that can help guide administrators, researchers, and higher education stakeholders to better conceptualise, design, implement, and assess co-creation activities.

KEYWORDS

Higher education; marketisation; student experience; student voice; co-creation

Introduction

Amidst expanding student enrolments, growing competitive forces in the university market, and reports of students' concerns over the value of higher education (e.g., Hazelnor, 2015; Marginson, 2016; Pucciarelli & Kaplan, 2016), it is increasingly relevant to revisit with rigour the question of how students can become more involved in the missions of universities (e.g., Cook-Sather, 2016; Matthews & Mercer-Mapstone, 2018). While collaboration with students is not a new endeavour (e.g., Bloland, 1967; Swanson, Easterling, Costa, & Creamer-Bauer, 1990), the contextual factors shaping higher education – from flexible degree study (e.g., Sindre, 2019) to the refocus on graduate employability (e.g., Jackson, 2016; Tran, 2015) – provide an appropriate backdrop to think creatively about students co-creating their university experience with staff. Examples of co-creation activities may include students co-creating curriculum through student-led project-based ideas, students co-creating publications and

media for the university, or students serving as peer mentors or learning advisors for other students and student representatives within internal quality assurance activities (e.g., focus groups, workshops). These activities are varied, but all serve as pathways for student voices and perspectives to be heard and incorporated.

This study includes data from 10 different case studies of student-staff co-creation in the Australasian higher education context. Through qualitative surveys ($n = 97$) and in-depth interviews ($n = 35$), we sought the views of students and staff involved in co-creation to understand the key elements of supporting co-creation across inputs, processes, and outcomes. In this study, we also sought to uncover the commonalities across the diverse range of co-creation activities, which could support future adoption by other institutions.

A meaningful contribution arising from our research is the conceptualisation of value creation, which occurs through student-staff co-creation across two distinct yet related dimensions, co-production and value-in-use (ViU). When students and staff work together, this can both influence the design, process, and/or implementation of the co-production as well as have a positive effect on the individual's relationships, experiences, and/or ability to modify the activity to their preferences (i.e., ViU). Already well established in the organisational business literature (e.g., Ranjan & Read, 2016), the applicability of these dual constructs provides a clear path forward towards understanding and evaluating the value, or the 'how', of supporting student-staff co-creation within the university sector. Our research consequently links the divergent fields of higher education and organisational business to create a generalisable evidence-informed model of co-creation that can be adopted by various stakeholders and applied to a wide array of co-creation activities. The presented model further provides an interdisciplinary view for conceptualising, designing, implementing, and evaluating co-creation in education.

Overview of sample case studies and methods

Our sample in this study included 10 case studies from five universities in Australia and one in New Zealand. These case studies were identified using the researchers' networks as well as numerous calls for case studies through higher education organisations (e.g., newsletters, social media). As our aim was to understand how students and staff can co-create in higher education, we included a range of cases, such as co-production of a magazine, student input on service design, and students working as peer mentors. Prior scholarly research on the types of ways that students could act as partners in higher education also encouraged us to seek cases that spanned classroom and co-curricular examples (e.g., Healey, Flint, & Harrington, 2014; Mercer-Mapstone & Marie, 2019).

Clearance was obtained from The University of Melbourne's Human Research Ethics Committees to carry out the research. Case study selection began, in all cases, with a staff member involved in the activity contacting the research team to convey interest in participating. The staff members were then asked to send an initial description of the case as well as any documents related to the case (e.g., outline of the curriculum, previous outputs of the activity by students). Once selected for the study, the research team met with the lead staff member to ensure they had an accurate portrayal of the activity (as per member-checks, see Carlson, 2010). Staff members were then asked to

provide a list of student emails to help the researchers distribute an e-mail invitation to participate. The research team also asked the staff member to join the study, with one staff member constituting one of the survey respondents and one of the interview participants for each case (see Table 1).

In carrying out this research, we utilised a grounded theory approach (as per Glaser & Strauss, 2017), supported through qualitative data methods, to understand our participants' perspectives and experiences relating to co-creation. Themes around inputs, processes, and outcomes emerged from the data we collected and analysed. Our data collection was a two-stage process involving first an online qualitative survey followed by an interview. The survey stage ($n = 97$) (administered through Qualtrics) prompted participants about their co-creation experiences as well as the associated motivations, barriers, and benefits. In the next stage, the lead researcher (first author)

Table 1. Overview of cases including in the study ($n = 10$).

Case Code	Type of Activity	Purpose of Co-Creation	Total of Qualitative Survey Respondents	Total of Interview Participants
PUB	A student and staff co-produced magazine aimed at future, current, and past students in the program	Improving graduate employability (e.g., writing and editing skills), fostering communication to future, current and past students	N = 9	N = 4
WIL	Student industry placement in management consulting firms aimed to strengthen relationships with firms to the department and appeal to future students	Improving graduate employability (e.g., project-based learning, authentic learning), promoting the program to future students, and supporting ongoing industry-linkages between department and firm	N = 11	N = 2
CD	Student and staff co-designed curriculum on community interventions	Improving graduate employability (e.g., solving real world problems)	N = 7	N = 4
EXP	Students and staff collaborating in a co-design workshop to improve service design (e.g., enrolment processes)	Eliciting student feedback and perceptions on improving service design	N = 17	N = 5
RES	Students and staff co-creating video learning resources for future students and industry partners	Improving graduate employability (e.g., communication skills); promoting the quality of graduates to local industry partners	N = 7	N = 4
PROG	Student and staff working together to design a 'student partnership' program at the university	Fostering student partnerships, piloting a student partnership approach to program design/implementation	N = 2	N = 2
PEERA	Students acting as peer mentors for students struggling in large and/or challenging subjects	Improving retention, student-led help	N = 4	N = 3
MEDIA	Students creating social media content (i.e., videos, photographs) for university social media accounts	Creating content that would connect with students and help them engage with the university	N = 4	N = 3
GOV	Student representation on formal academic committees and boards	Eliciting student feedback and perceptions and improving student engagement	N = 9	N = 5
PEERB	Students acting as peer mentors for students struggling in large and/or challenging subjects	Improving retention, student-led help	N = 27	N = 3

* Two cases were student peer mentoring programs; therefore, one program is abbreviated to PEERA and another as PEERB.

conducted 35 interviews that allowed the participants to share more of their experiences. Each interview lasted approximately one hour and was conducted face-to-face or using video/online audio software, depending on participants' preference and location.

The lead researcher transcribed and coded all data using NVivo. Using a process informed by Creswell and Creswell (2017), the data analysis process involved listening to the audio, reading transcripts, and comparing to qualitative survey results before drafting the initial codes. The co-investigator (second author) then utilised a co-coder comparison method (adopted from Hruschka et al., 2004) to select random samples of data (of both transcripts and survey responses) to code independently. The researchers then met to discuss any variations and repeated the process until both researchers agreed on the coding.

Overview of the model

In this section, we introduce the evidence-informed model of student-staff co-creation in higher education which resulted from our study. The model was broadly aimed towards scoping the considerations of co-creation across inputs, processes, and outcomes. The anticipated outcome of our research was therefore to support the design, implementation, evaluation, and benchmarking of co-creation activities.

As can be seen from the model (Figure 1), two superordinate categories emerged that can be described as inputs. These categories included both individual considerations (i.e., motivations) and environmental considerations (i.e., contextual factors, such as the activity's design) when designing and supporting co-creation. Within each of these categories, we found numerous themes including, though not limited to, individuals' previous history and experiences with student-staff co-creation, individuals' motivations, and the authenticity of the activity. These themes, when taken together, constitute the foundation, or inputs, of the co-creation activity before it begins. As will be discussed in greater detail later in this article, we found that the inputs of the activity, such as the students' motivations for being involved, were critical considerations to the subsequent processes and outcomes of the experience. Previously, researchers who have evaluated student-staff co-creation have advocated for those wishing to enact co-creation to consider their narrative, drivers, and

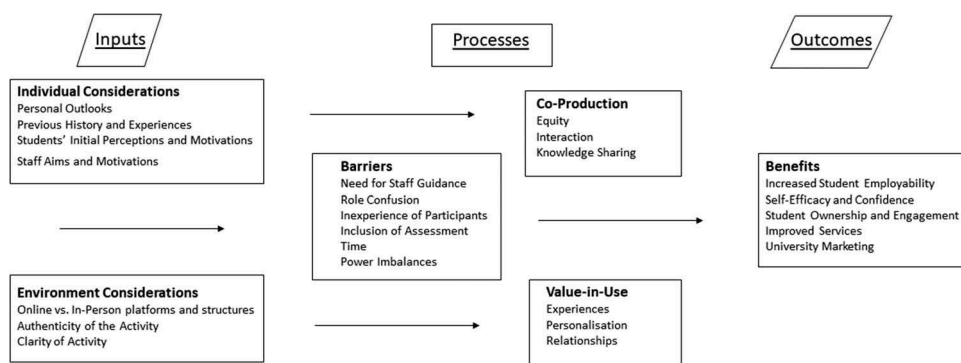


Figure 1. Evidence-Based Model of Student-Staff Co-Creation

resources (see Mercer-Mapstone & Marie, 2019). However, our model further highlights individual and environmental considerations, such as participants' outlooks and the authenticity of the activity itself.

The second section of the model, the processes, related to the barriers that can arise in student-staff co-creation as well as the mechanisms which are needed to support student-staff co-creation. From our research on processes, we found that the two dimensions of the processes of co-creation are also the dimensions in which value is created (Vargo & Lusch, 2004). In other words, the value in the co-creation process can occur in both co-production (i.e., how the student(s) contribute to the design, processes, or implementation of the activity) and ViU (i.e., how the students/staff create value for themselves through the activity). This conceptualisation of value is critical to the area, as scholars have previously noted that student-staff co-creation literature has not fully explained how the activities result in greater value of student engagement and success (Kahu & Nelson, 2018).

Additionally, previous literature exploring the benefits of student-staff co-creation has frequently distinguished between benefits for students and benefits for staff (e.g., Mercer-Mapstone et al., 2017). Yet the findings from this study indicate that the benefits for students and staff are intertwined. For example, deeper relationships between students and staff creates value for both parties. Therefore, we instead advocate for the conceptualisation of value in co-creation to distinguish between value in the co-production process versus value created for the individual (ViU). This conceptualisation aligns with previous work undertaken in both health care and industry (e.g., Lusch, Vargo, & Gustafsson, 2016; Rantala & Karjaluoto, 2016). Further, while student-staff partnership literature frequently positions student and staff co-creation (also referred to as students-as-partners) as a counter-narrative to the increasing consumerist language and neoliberal higher education agenda (e.g., Dwyer, 2018; Matthews, Dwyer, Hine, & Turner, 2018), our research findings argue that mutually beneficial co-creation can occur even when market-orientated outcomes, such as university marketing, are an explicit goal. Our findings, therefore, argue that authentic and valuable student-staff co-creation does not need to be positioned as dualistic, either supporting or arguing against marketisation in higher education. Rather, the process can create value for staff, students, and the university as an entity.

The third section of the model, outcomes, continues to specify the benefits to both students and staff that can arise from student-staff co-creation, apart from those which occur in co-production and ViU. Outcomes, along with barriers, have been frequently discussed in previous literature on student-staff partnership. Similar to other studies (e.g., Kay, Dunne, & Hutchinson, 2010; Mercer-Mapstone et al., 2017), we found that staff and students perceived benefits such as increased perceptions of employability, enhanced self-efficacy, and increased student ownership and belongingness within the university community. We further found benefits for the university (other than improving the student experience through supporting the benefits to students), such as the enhancement of services and activities and tangible outputs such as university marketing (Fluckiger, Vigil, Pasco, & Danielson, 2010; Helgesen, 2008; Ribes-Giner & Peralt, 2014).

Discussion of the model

Inputs

The analysis of our data suggests that individual and environmental considerations were two categories of importance when exploring the input considerations of student-staff co-creation. Individual considerations included participants' personal outlooks and previous history and experiences relating to co-creation and higher education, as well as student and staff aims/perceptions and motivations for participating in co-creation. When designing and implementing co-creation activities, these themes likely need to be addressed. For example, our research findings found that almost all participants (students and staff) held strong beliefs before their participation in co-creation. They held that student perspective was essential and that universities had a responsibility to include students across university activities (e.g., governance, curriculum design). To illustrate this sentiment, one student noted:

Students provide a front-line perspective that cannot be given by anyone else. Their lived experiences, ideas, and knowledge are therefore invaluable when it comes to contributing to the improvement of higher education activities. Students are therefore the best people to consult when it comes to changing or implementing new strategies in higher education because it is they who are directly affected by such changes. (Student, GOV, survey data)

Similarly, the results also suggest that many students and staff had already experienced co-creation type activities either before coming to university or previously in their university experiences. For example, several students noted they were the type of student to always volunteer for any extra-role behaviour opportunities (i.e., casual work, volunteering on campus, student associations). Two staff members also noted activist and community advocate backgrounds before working in the university sector. For students and staff who did not have direct previous experiences in student-staff co-creation, many expressed a desire to try student-staff co-creation because of negative experiences in education. For example, one student stated:

Prior to coming to the educational field, I was really disengaged in my studies and frustrated at the sense of injustice about the dismissal of students' role in education, but that was more because of my beliefs on egalitarianism more than anything else. (Student, PROG, interview data)

Students and staff also shared common motivations and aims that drove their participation in co-creation activities. For example, one student involved in the co-creation of curriculum design said, 'The complete control over that project (i.e., the curriculum) was why I picked this course. I wanted more of that' (Student, CD, interview data). Students also frequently mentioned a desire to develop their future employability, making comments such as, 'I thought this kind of thing would look really good for future jobs' (Student, PEERA, interview data). Likewise, staff often expressed an interest in supporting students' graduate capabilities. However, staff often indicated that their aims extended beyond only supporting individual students' employability to also improving the service design of their programs. For example, one staff member wrote, 'There are so many hiccups in the process now and engaging with students helps me get some sense of where those pain points are' (Staff, EXP, survey data).

Input considerations also extended to environmental or contextual considerations within the case as well. These considerations, similar to the individual considerations, would later influence the processes and outcomes of the cases, highlighting the variations of how co-creation can unfold. For example, technology and online-supported cases (e.g., media and governance) revealed fewer relationships between students and staff forming but also had fewer barriers relating to time. The authenticity and clarity of the cases prior to the initiation of the activity also influenced the rest of the case. For example, in the co-designed curriculum subject, students were writing proposals for community engagement that were not authentic (i.e., not shown to community leaders afterwards). One student noted, ‘I think it would be great [if the subject] actually has implementation, as that is an important part of leading change, not just suggesting’ (Student, CD, interview data). Another critical consideration emerging from the data was the perceived clarity of the activity. Many students reported feeling uncertain within the activity, especially at first. Students also indicated that they did not have the types of scaffolded learning they had previously experienced in their traditional student roles. As one student noted:

I think the biggest challenge was the initial few weeks in the course where we had to develop a team contract and the project scope – so there was a lot going on but there wasn’t a lot of information or examples. (Student, WIL, survey data).

Other students were not used to interacting with staff and were unsure what their roles as student collaborators were. As another student reported:

At first, it was a little daunting because I felt like I was in a room of very professional and senior academics and there are also ministerial appointed positions there – and I hadn’t had any experience in that field. (Student GOV, interview data)

The above quote further highlights the importance of environmental considerations when designing for co-creation such as supporting the clarity of the activity.

Barriers

Barriers from previous research have included students feeling unfamiliar in partnership relationships (Cook-Sather & Luz, 2015; Mercer-Mapstone et al., 2017), role confusion (e.g., Lizzio & Wilson, 2009), and students’ lack of confidence in what they could contribute to the university (Walkington, 2015). These issues also emerged in the current study and therefore are included in the resulting model. Other barriers that emerged included the need for staff guidance (i.e., students reporting they needed more help, especially early on in their partnership activities) and inexperience of participants (e.g., lack of confidence). As Cook-Sather and Luz (2015) mention, the partnership between students and staff often causes students to act within a liminal state, which partly shifts them from student to staff. This state also can also support student partnership through a transformational process of moving from being a passive learner to an active learner. As one lecturer in the curriculum design case noted, ‘The students want me to give them examples and structure, but by structure, they mean “What is it exactly that you want me to do?”’ (Staff, CD, interview data). In this case, and in others, the staff did not want students to assume what their expectations of achievement or

outcome should be based on an example. They sought for the activity to be organic and allow expectations to form throughout the project.

Additional barriers that arose from our study of ten case studies have also been previously reported, including lack of time (e.g., Bovill, Cook-Sather, & Felten, 2011), the inclusion of assessment (e.g., Meer & Chapman, 2015; Sambell & Graham, 2010), and power imbalances (e.g., Mercer-Mapstone et al., 2017). The inclusion of assessment and power imbalances often link with one another (Sambell & Graham, 2010). To illustrate, for cases such as the WIL (work integrated learning) subject and the co-created curriculum, lecturers were cautious about sharing their expectations of the outcome or report, but this left students unsure about how they would be evaluated or what final product was expected. As Sambell and Graham (2010) noted in their study, the inclusion of assessment in co-created activities requires mutual trust and shared responsibility, which are often impacted by the natural power imbalance and authority from student-staff roles. However, even in cases where there was no assessment, power imbalances were present. For example, in the case of student governance, the staff member mentioned that they recently extended student roles to include dedicated roles for online students, but noted, 'We have to be careful what we wish for. We don't want the entire decision body of the university to be decided by a bunch of online students, but we want genuine representation, and we're excited about that' (Staff, EXP, interview data). This quote ties in to previous research conducted by Bovill et al. (2011) that found that some staff want to engage with students but are uncomfortable when partnership activities may require relinquishing control.

Processes

In this study, we sought to explore not only the barriers that may arise but also the mechanisms which are needed to support co-creation activities. From our data analysis, we found that the processes to support co-creation span two dimensions, co-production and ViU. These results align with Ranjan and Read's (2016) meta-study evaluating organisational business literature on co-creation. They found co-creation included not only the dominant concept of co-production (i.e., stakeholders working together) but also ViU (i.e., how individuals apply, extract, and modify the value for themselves). Previously, in higher education literature, Neary and Winn (2009) have theorised the student as the producer (e.g., towards research collaborations), but only recent literature has conceptualised ViU in the student experience (e.g., Dollinger, 2018). Direct recognition of both dimensions is integral to fully conceptualising how value can be co-created.

The first dimension, co-production, involves continuous collaboration with stakeholders towards service design processes (Auh, Bell, McLeod, & Shih, 2007; Hu & McLoughlin, 2012). In the university context, this could entail university staff (professional or academic) working with students on curriculum (e.g., Bergmark & Westman, 2016; Bovill, 2014; Neary & Winn, 2009), governance (e.g., Carey, 2013; Lizzio & Wilson, 2009), or co-enquiry and research (e.g., Bell, 2016; Mercer-Mapstone & Clarke, 2018). In summary, co-production is any way in which a student could contribute to the design, process, or implementation of an activity. Ranjan and Read (2016) uncovered that the key considerations in this dimension include equity (i.e., transparency), interaction, and knowledge sharing. In the university context, an especially

critical dynamic in the co-production processes is how power imbalances between students and staff may influence the authenticity of the activity to support these key considerations.

To illustrate how these processes evolve in practice, students and staff often alluded to how equity, interaction, and knowledge sharing served as the foundation to co-production. One student who participated in the case involving the co-production of learning resources reported that ‘It’s no longer a student-teacher relationship but an equal playground’ (Student, RESO, interview data). This quote highlights how equity was an integral element of supporting the collaboration between students and staff. A staff member involved in the same case also echoed the importance of equity:

I think it was a chance for students to see that as academics, we don’t know the answers to everything. I think they also got an insight into the way we work in teams and the competing interests there are in our day-to-day jobs. (Staff, RESO, survey data)

Participants also recognised how interaction (or dialogue) was the primary activity of co-production and also essential for co-creation to occur. For example, a staff member noted how ‘close proximity gave students the opportunity to provide suggestions for improvement, discuss their experiences, and voice their ideas’ (Staff, PEERA, survey data). Students involved in activities also mentioned that the experience gave them an opportunity to get to know staff members and other students more. For example, students involved in the student-staff publication found it enjoyable to interact with each other outside of a classroom setting, while students involved in the learning resources case found it was more meaningful to meet staff through a joint activity, rather than during typical office hours. As a student in the publication case noted:

I think the project gave us a chance to see each other outside of class in terms of our intellectual and creative capacity. I also think it was really nice seeing what people from our degree can turn out and create in a sense. (Student, PUB, interview data)

Co-production often created new channels for students and staff to share knowledge. Knowledge sharing can be thought of as the degree to which students and staff could express their current and future needs, as well as sharing information and other resources, such as their perspectives and ideas. The cases of co-creation included in this study highlighted how both students and staff learned from one another. Staff frequently noted that they had learned from students and enjoyed participating in an activity where they were not viewed as the sole expert. For example, staff responses included ‘The premise that as a lecturer I am the expert takes away the reality that we’re all learning this together’ (Staff, CD, interview data), and ‘We acknowledge we have some incredibly creative students and they are amazing artists and could probably do better graphic design than me. I mean, we’re not going to be experts at everything’ (Staff, MEDIA, interview data).

Students mentioned they were able to learn more instrumental and useful aspects of the university, such as specific programs and offered courses, how reporting takes place, and even administrative processes. For example, one student involved in the publication case noted, ‘I also discovered departments I didn’t know existed. The printing department is huge!’ (Student, PUB, interview data).

The second dimension underpinning co-creation and supporting value creation is ViU. Value-in-use is essentially how value for an individual is derived through interaction or collaboration, independent of the service innovation (Vargo & Lusch, 2004). In the university context, this relates to how students or staff create value for themselves through the activity. In this way, ViU can take into consideration how value extends beyond the chain of production (Dollinger, 2018). For example, students and staff can co-produce a publication to make it more engaging to other students, but the intrinsic joy a student has from seeing their article in print is how the co-creation activity further amplifies value. The key considerations within this dimension signify how individuals create value (Sandström, Edvardsson, Kristensson, & Magnusson, 2008) and include experiences, personalisation, and relationships (see Figure 1).

For example, experiences within co-creation relate to the intrinsic value for participants and derived enjoyment from the activity itself (Ballantyne & Varey, 2008). Thus, in addition to the co-creation activity resulting in co-production, participants also created value for themselves through their experiences. As one student who co-produced a program noted, 'I've never had a job or area of study where I've been this passionate about doing it. The joy I get from working with students in partnership is enough to sustain my work' (Student, PROG, interview data).

Students also mentioned how they believed their participation in co-creation activities to be one of their most memorable experiences as a student. For example, one student who co-produced a video-clip noted, 'It's a good thing to look back on or just watch from time to time. I must say, I did save it and I do watch it' (Student, SOCIAL, interview data). Within the same case, another student also noted she enjoyed the co-creation of social media, saying 'It's been one of the highlights of being a university student' (Student, SOCIAL, interview data).

Additionally, as co-production often supported interaction and knowledge sharing, another aspect that emerged from ViU was how participants could personalise the activity and the subsequent value for them through co-creation. For example, students involved in the learning resources case or the co-production of a publication could choose topics to study or ways they would design or write-up their contributions, thus, amplifying value for them.

Finally, co-production often led to enhanced relationships between students and staff and within student peer groups. To illustrate, students involved in the cases often remarked upon how the corresponding staff seemed to care about them more than other staff they had interacted with previously. This trend is highlighted by the student who remarked:

Yes, as these staff members have developed a therapeutic relationship with students they have shown us our opinions have value and merit. Other facility staff do not always give us this impression. (Student, EXP, interview data)

Additionally, staff themselves felt that the activities changed their perceptions and relationships with students. Staff noted that they got to know and understand students more, and the experiences allowed them to get to know students on a more personal level.

Benefits

There are additional benefits that occur in student-staff co-creation that fall outside of the value created through co-production and ViU. Many of these perceived benefits arose in previous studies, and our study further adds merit and insight into how these benefits may occur in student-staff co-creation activities. However, it is important to recognise that benefits such as ‘increased student employability’ are perception-based data and do not necessarily evidence actual improvement (Abdullah, 2010). Though perception-based data is widely used in the evaluation of educational programs and interventions (e.g., Crebert, Bates, Bell, Patrick, & Cragnolini, 2004; Ferguson, 2011).

Benefits that have been alluded to by students or staff in this study include those that directly relate to students as well as those that impact the university. To illustrate, aligning with previous research findings from a meta-study conducted by Mercer-Mapstone et al. (2017), our findings indicated that participants’ perceived benefits to include increased student employability, self-efficacy and confidence, and student ownership and engagement. Our findings indicated that benefits also occurred for the university, such as improved services and better-informed university marketing (see Fagerström & Ghinea, 2013; Fluckiger et al., 2010). Data collected also suggest that students and staff may perceive co-creation as resulting in an enhanced ability to advise staff on how to engage with students (Bovill et al., 2011). Our results also indicated that students were particularly enthusiastic about how they perceived their experiences had prepared them for future work. For example, quotes from students included:

This has been a great experience for me and something I will speak highly of – and tie back to the university. It’s actually something I will mention in job interviews. (Student, RESO, interview data)

For resume building this is a point I highlight. I applied to a magazine and showed this, and I hope it will be seen as a point of difference. (Student, PUB, interview data)

These findings highlight the importance of extending co-creation opportunities, as many universities remain focused on supporting employability for students (e.g., Bennett et al., 2017; Farenga & Quinlan, 2016). Further, in the peer mentoring programs, students and staff also reflected on how they perceived that their programs provided benefits to both students and the university. As one student suggested, ‘[The program] provides happier and more successful students, a more successful program, and an increased pass rate. Which leads to an increased status of the university for having programs in place that look after their students’ (Student, PEERB, survey data).

In summary, the value creation that occurs in student-staff co-creation manifests not only within the process itself (through co-production and ViU) but also throughout and after the process (e.g., increased student employability, self-confidence, and efficacy). Further benefits extend to both students (e.g., improved relationships with staff and peers), participating staff (e.g., better understanding of the student perspective), and the university itself (e.g., through outputs such as marketing materials).

Key contributions and future research

Higher education staff (both academic and professional) are increasingly compelled to initiate activities where students and staff work together, arguably in partnership, to co-create (Bovill, 2014; Cook-Sather, 2016). The decision to support student-staff co-creation is often mediated on the premise that by working in collaboration students and staff can better share their perspectives and experiences and enhance services or outputs, ranging from curriculum development to peer mentoring programs (Curran & Millard, 2016; Macfarlane, Dennison, Delly, & Mitric, 2018). Yet the results from the 10 case studies collected here suggest that co-creation activities produce not only greater value to outputs (i.e., co-production), but also may result in greater value to the individuals who are participating. The individual-based value is different than value created during co-production and can be conceptualised as a concept known as value-in-use (ViU). Taken together, co-production and ViU therefore illuminate how student-staff co-creation creates value for both the institution as well as the individual. The model presented in our work is a useful and tangible tool that can be used to guide design and evaluation of co-creation activities.

Our findings also highlight the importance of both the individual and the environmental considerations that support the design of co-creation activities. For example, how the authenticity of the activity will be ensured and communicated to participants. Equally as important is the need for staff to map out possible barriers or challenges that may occur within the activity and reflect on how those barriers could be avoided or managed.

Our results have indicated that there are a broad range of activities that could be defined as student-staff co-creation. The included cases, ranging from students participating in university governance to students co-creating marketing materials all suitably align to the presented model and the dual-constructs of value creation. Future research could now benefit from teasing apart how these programs may amplify specific types of value. Further, while a range of co-creation activities informed our model, they do not fully represent how students can or should co-create in higher education, nor do they represent the variation within different types of co-creation (e.g., not all co-created curriculum design cases are the same). Additionally, ongoing research is necessary to explore the types and forms of co-creation as well as how co-creation can be scaled (e.g., online) and become more equitable (e.g., include disengaged students).

The significance of our work highlights a need for universities, and especially university leadership, to engender and support student-staff co-creation throughout all facets of the university. Student contributions and ideas can invigorate teaching and learning experiences, research activities, student life, and student services. Further, our findings indicate that student-staff collaborations do not always need to be designed for equal partnership between students and staff for them have to significant value creation. Providing additional support for activities that may already take place within the university and still constitute co-creation, such as students participating in work placements, working as peer mentors, and serving on governance committees, could be useful for universities to begin to explore and bolster student-staff co-creation.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Mollie Dollinger  <http://orcid.org/0000-0003-1105-9051>

Jason Lodge  <http://orcid.org/0000-0001-6330-6160>

References

- Abdullah, S. (2010). Measuring the outcomes of information literacy: Perception vs evidence-based data. *The International Information & Library Review*, 42(2), 98–104. doi:10.1080/10572317.2010.10762851
- Auh, S., Bell, S.J., McLeod, C.S., & Shih, E. (2007). Co-production and customer loyalty in financial services. *Journal of Retailing*, 83, 359–370. doi:10.1016/j.jretai.2007.03.001
- Ballantyne, D., & Varey, R.J. (2008). The service-dominant logic and the future of marketing. *Journal of the Academy of Marketing Science*, 36, 11–14. doi:10.1007/s11747-007-0075-8
- Bell, A. (2016). Students as co-inquirers in Australian higher education: Opportunities and challenges. *Teaching & Learning Inquiry*, 4(2), 1–10. doi:10.20343/teachlearningqu.4.2.8
- Bennett, D., Knight, E., Divan, A., Kuchel, L., Horn, J., van Reyk, D., & Burke Da Silva, K. (2017). How do research-intensive universities portray employability strategies? A review of their websites. *Australian Journal of Career Development*, 26, 52–61. doi:10.1177/1038416217714475
- Bergmark, U., & Westman, S. (2016). Co-creating curriculum in higher education: Promoting democratic values and a multidimensional view on learning. *International Journal for Academic Development*, 21, 28–40. doi:10.1080/1360144X.2015.1120734
- Boland, P.A. (1967). *Student group advising in higher education*. Washington, DC: American Personnel and Guidance Association.
- Bovill, C. (2014). An investigation of co-created curricula within higher education in the UK, Ireland and the USA. *Innovations in Education and Teaching International*, 51, 15–25. doi:10.1080/14703297.2013.770264
- Bovill, C., Cook-Sather, A., & Felten, P. (2011). Students as co-creators of teaching approaches, course design, and curricula: Implications for academic developers. *International Journal for Academic Development*, 16, 133–145. doi:10.1080/1360144X.2011.568690
- Carey, P. (2013). Representation and student engagement in higher education: A reflection on the views and experiences of course representatives. *Journal of Further and Higher Education*, 37, 71–88. doi:10.1080/0309877X.2011.644775
- Carlson, J.A. (2010). Avoiding traps in member checking. *The Qualitative Report*, 15, 1102–1113. Retrieved from https://nsuworks.nova.edu/tqr_home/
- Cook-Sather, A. (2016). Undergraduate students as partners in new faculty orientation and academic development. *International Journal for Academic Development*, 21, 151–162. doi:10.1080/1360144X.2016.1156543
- Cook-Sather, A., & Luz, A. (2015). Greater engagement in and responsibility for learning: What happens when students cross the threshold of student–Faculty partnership. *Higher Education Research & Development*, 34, 1097–1109. doi:10.1080/07294360.2014.911263
- Crebert, G., Bates, M., Bell, B., Patrick, C.J., & Cragnolini, V. (2004). Developing generic skills at university, during work placement and in employment: Graduates' perceptions. *Higher Education Research & Development*, 23(2), 147–165. doi:10.1080/0729436042000206636
- Creswell, J.W., & Creswell, J.D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.

- Curran, R., & Millard, L. (2016). A partnership approach to developing student capacity to engage and staff capacity to be engaging: Opportunities for academic developers. *International Journal for Academic Development*, 21(1), 67–78. doi:10.1080/1360144X.2015.1120212
- Dollinger, M. (2018, July). Higher education's value: In the experience itself. In D. Wache & D. Houston (Eds.), *Research and development in higher education [Re] valuing higher education*, (Vol. 41, pp. 60–68). Adelaide, Australia: Higher Education Research and Development Society of Australasia, Inc. ISBN: 978-0-908557-96-7 . Retrieved from <https://www.hersda.org.au>
- Dwyer, A. (2018). Toward the formation of genuine partnership spaces. *International Journal for Students as Partners*, 2(1), 11–15. Retrieved from <https://mulpress.mcmaster.ca/ijpsap>
- Fagerström, A., & Ghinea, G. (2013). Co-creation of value in higher education: Using social network marketing in the recruitment of students. *Journal of Higher Education Policy and Management*, 35(1), 45–53. doi:10.1080/1360080X.2013.748524
- Farenga, S.A., & Quinlan, K.M. (2016). Classifying university employability strategies: Three case studies and implications for practice and research. *Journal of Education and Work*, 29, 767–787. doi:10.1080/13639080.2015.1064517
- Ferguson, P. (2011). Student perceptions of quality feedback in teacher education. *Assessment & Evaluation in Higher Education*, 36(1), 51–62. doi:10.1080/02602930903197883
- Fluckiger, J., Vigil, Y.T.Y., Pasco, R., & Danielson, K. (2010). Formative feedback: Involving students as partners in assessment to enhance learning. *College Teaching*, 58, 136–140. doi:10.1080/87567555.2010.484031
- Glaser, B.G., & Strauss, A.L. (2017). *Discovery of grounded theory: Strategies for qualitative research*. New York, NY: Routledge.
- Hazelkorn, E. (2015). *Rankings and the reshaping of higher education: The battle for world-class excellence* (2nd ed.). London: Palgrave Macmillan.
- Healey, M., Flint, A., & Harrington, K. (2014). *Engagement through partnership: Students as partners in learning and teaching in higher education*. York, England: Higher Education Academy.
- Helgesen, Ø. (2008). Marketing for higher education: A relationship marketing approach. *Journal of Marketing for Higher Education*, 18, 50–78. doi:10.1080/08841240802100188
- Hruschka, D.J., Schwartz, D., St. John, D.C., Picone-Decaro, E., Jenkins, R.A., & Carey, J.W. (2004). Reliability in coding open-ended data: Lessons learned from HIV behavioral research. *Field Methods*, 16, 307–331. doi:10.1177/1525822X04266540
- Hu, Y., & McLoughlin, D. (2012). Creating new market for industrial services in nascent fields. *Journal of Services Marketing*, 26, 322–331. doi:10.1108/08876041211245218
- Jackson, D. (2016). Re-conceptualising graduate employability: The importance of pre-professional identity. *Higher Education Research & Development*, 35, 925–939. doi:10.1080/07294360.2016.1139551
- Kahu, E.R., & Nelson, K. (2018). Student engagement in the educational interface: Understanding the mechanisms of student success. *Higher Education Research & Development*, 37(1), 58–71. doi:10.1080/07294360.2017.1344197
- Kay, J., Dunne, E., & Hutchinson, J. (2010). *Rethinking the values of higher education—Students as change agents?* Gloucester, England: QAA. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.174.309&rep=rep1&type=pdf>.
- Lizzio, A., & Wilson, K. (2009). Student participation in university governance: The role conceptions and sense of efficacy of student representatives on departmental committees. *Studies in Higher Education*, 34, 69–84. doi:10.1080/03075070802602000
- Lusch, R.F., Vargo, S.L., & Gustafsson, A. (2016). Fostering a trans-disciplinary perspectives of service ecosystems. *Journal of Business Research*, 69, 2957–2963. doi:10.1016/j.jbusres.2016.02.028
- Macfarlane, K., Dennison, J., Delly, P., & Mitric, D. (2018). Sailing through a storm: The importance of dialogue in student partnerships. *International Journal for Students as Partners*, 2(2), 144–150. doi:10.15173/ijpsap.v2i2.3457

- Marginson, S. (2016). The worldwide trend to high participation higher education: Dynamics of social stratification in inclusive systems. *Higher Education*, 72, 413–434. doi:10.1007/s10734-016-0016-x
- Matthews, K.E., Dwyer, A., Hine, L., & Turner, J. (2018). Conceptions of students as partners. *Higher Education*, 76, 1–15. doi:10.1007/s10734-018-0257-y
- Matthews, K.E., & Mercer-Mapstone, L.D. (2018). Toward curriculum convergence for graduate learning outcomes: Academic intentions and student experiences. *Studies in Higher Education*, 43, 644–659. doi:10.1080/03075079.2016.1190704
- Meer, N., & Chapman, A. (2015). Co-creation of marking criteria: Students as partners in the assessment process. *Business and Management Education in HE*, 1–15. Retrieved from <https://www.tandfonline.com/toc/rhep18/current>
- Mercer-Mapstone, L., & Clarke, A. (2018). A partnership approach to scaling up student-staff partnership at a large research-intensive university. *The Journal of Educational Innovation, Partnership and Change*, 4, 1. doi:10.21100/jeipc.v4i1.741
- Mercer-Mapstone, L., Dvorakova, S.L., Matthews, K.E., Abbot, S., Cheng, B., Felten, P., ... Swaim, K. (2017). A systematic literature review of students as partners in higher education. *International Journal for Students as Partners*, 1(1), 1–23. doi:10.15173/ijpsap.v1i1.3119
- Mercer-Mapstone, L., & Marie, J. (2019). *Practical guide for scaling up student-staff partnership in higher education*. Edinburgh, Scotland: The University of Edinburgh. Retrieved from http://www.docs.hss.ed.ac.uk/iad/Learning_teaching/Academic_teaching/Resources/Student_Engagement/MercerMapstoneMarie_Practical%20Guide_Scaling_up_student-staff_partnership.pdf
- Neary, M., & Winn, J. (2009). The student as producer: Reinventing the student experience in higher education. In L. Bell, H. Stevenson, & M. Neary (Eds.), *The future of higher education: Policy, pedagogy and the student experience* (pp. 192–210). London: Continuum.
- Pucciarelli, F., & Kaplan, A. (2016). Competition and strategy in higher education: Managing complexity and uncertainty. *Business Horizons*, 59, 311–320. doi:10.1016/j.bushor.2016.01.003
- Ranjan, K.R., & Read, S. (2016). Value co-creation: Concept and measurement. *Journal of the Academy of Marketing Science*, 44, 290–315. doi:10.1007/s11747-014-0397-2
- Rantala, K., & Karjalainen, H. (2016, October). Value co-creation in health care: Insights into the transformation from value creation to value co-creation through digitization. *Proceedings of the 20th International Academic Mindtrek Conference* (pp. 34–41). Tampere, Finland. doi:10.1145/2994310.2994325
- Ribes-Giner, G., & Peralt, A. (2014). Modelling the co-creation between students and universities and its effects to loyalty and satisfaction. In L. Jodar, J.C. Cortes and I. Acedo (Editors), Instituto Universitario de Matematica Multidisciplinar, *Modelling for engineering and human behavior* (pp. 121–127). Valencia, Spain: Universidad Politecnica de Valencia.
- Sambell, K., & Graham, L. (2010). Towards an assessment partnership model? Students' experiences of being engaged as partners in Assessment for Learning (AfL) enhancement activity. In S. Little (Ed.), *Staff-student partnerships in higher education* (pp. 31–47). London: Bloomsbury.
- Sandström, S., Edvardsson, B., Kristensson, P., & Magnusson, P. (2008). Value in use through service experience. *Managing Service Quality: An International Journal*, 18, 112–126. doi:10.1108/09604520810859184
- Sindre, G. (2019). Lean and agile higher education: Death to grades, courses, and degree programs? In D. Parsons & K. MacCallum (Eds.), *Agile and lean concepts for teaching and learning* (pp. 155–169). Singapore: Springer Nature.
- Swanson, J.M., Easterling, P., Costa, L., & Creamer-Bauer, C. (1990). Student-staff collaboration in identifying nursing problems and reviewing the literature. *Western Journal of Nursing Research*, 12, 262–266. doi:10.1177/019394599001200211
- Tran, T.T. (2015). Is graduate employability the 'whole-of-higher-education-issue'? *Journal of Education and Work*, 28, 207–227. doi:10.1080/13639080.2014.900167
- Vargo, S.L., & Lusch, R.F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1–17. doi:10.1509/jmkg.68.1.1.24036
- Walkington, H. (2015). *Students as researchers: Supporting undergraduate research in the disciplines in higher education*. York, England: Higher Education Academy.