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Academic Libraries and Student Engagement: A Literature Review

Leo Appleton

Goldsmiths, University of London, Library Services, Goldsmiths, University of London, New Cross, London, SE14 6NW United Kingdom of Great Britain and Northern Ireland

Corresponding author Leo Appleton l.appleton@gold.ac.uk

Abstract

The term 'student engagement' has a broad meaning and is used freely as an expression in several different contexts of academic librarianship. This literature review covers scholarship from across several of these areas and is structured so that four broad themes are systematically addressed: student engagement in learning; students as partners; student voice; methods and techniques for student engagement. The granular review of the literature reveals many sub-discussions about a range of academic librarianship topics and provides some discussion about how they cross over into the area of student engagement. The literature covers different innovations, techniques and strategies for student engagement, and the review illustrates how many techniques and tools are transferable across the different intentions and objectives of student engagement. The review concludes that many academic librarians are very proactive in student engagement activities and that student engagement itself has become a fundamental element of academic library management.

Introduction

Student engagement in academic libraries is a very broad topic and is something that practicing academic librarians are very aware of in respect of 'connecting' with the students that use their library services. During the research process for this literature review, it has become apparent that there is no one single definition of 'student engagement' and it is used freely as an expression in several different contexts. The three broad contexts are: engagement in forming partnerships between students and librarians; engagement through seeking student voice and opinion; engagement in learning in the library and through library instruction. A more granular analysis of the literature reveals many sub-discussions and debates about a whole range of academic librarianship topics, and this literature review will attempt to thematically review the literature available within and across a number of themes. Whilst much of the literature discusses different innovations,

techniques and strategies for student engagement, the literature review will seek to illustrate how many student engagement techniques and tools are transferable across the different intentions and objectives of student engagement in academic libraries.

Literature review method

There is no single definition of 'student engagement' used within the academic library literature as the topic is written about in multiple contexts. The search strategy employed for this literature review therefore needed to take this into account. The two main contexts are 'engagement with learning' and 'engagement with the library'. Both are applicable to this review in that a lot of learning takes place in academic libraries and through library instruction and information literacy teaching. A long list of possible keywords and terms was compiled and a specific search strategy was developed. 'Student engagement' crosses over into many sub-disciplines of academic librarianship such as information literacy, performance measurement, impact and value studies, and space planning which meant that the search strategy needed to accommodate the breadth of literature in which 'student engagement' might be a key theme. The search strategy, therefore, used the term 'student engagement' (and truncated alternatives) as a constant, combined with variable additional terms and words (e.g. teaching; learning; partnership; ethnograph*, representation,). The search strategy was deployed using several library and information science and social science online databases, and was limited to monographs, journal articles, policy documents and white papers. In order to include a wide range of literature, but also maintain some timeliness and integrity within the review, the literature sourced is all within the last ten years.

Student engagement in higher education

Student engagement is not unique to academic libraries, but is part of all aspects of university and college life, not least the students' experiences and how they apply themselves to teaching, learning and research. The first time that I wrote about student engagement in academic libraries, the focus, certainly in the United Kingdom, was on student partnership and how students could become proactively involved in their higher education within a much more commodified and marketised higher education environment. At the time, the discussion in the United Kingdom centred around the 2011 white paper *Higher Education: Students at the Heart of the System* which set out a strategy for making the higher education system in the UK more accountable to students and to put them into a stronger position to influence the sector (Department for Business, Innovation and Skills, 2011). More recently, the political and economic drivers have continued to encourage the delivery of a more student-centred higher education experience. In the United Kingdom, this was apparent in the 2016 white paper *Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice* which continued to stress the importance of quality in higher education and student

involvement in defining and shaping their student experiences (Department for Business, Innovation and Skills, 2016).

In the more general student engagement literature, discussion continued to focus on the value for money that students receive in respect of their higher education and student experience. Trowler (2013) strategically situates student engagement within the context of higher education institutions and students investing time, energy and resources to the academic student experience. However, there are several differences of opinion as to whether students are actually 'consumers' of higher education within a specific higher education market economy. Research by Tomlinson (2017) shows the degree of variability in attitude and approaches towards consumerism of higher education and how students still perceive higher education in ways that do not conform to the ideal student-consumer approach. Similarly, Saunders (2015) categorically concludes from a single U.S. university case study, that higher education students do not see themselves as consumers. Research carried out in the U.K. suggests that student engagement is an expectation of U.K. quality enhancement processes, within a marketised higher education sector where students are increasingly treated as consumers of an educational product (Carey, 2013a). In his paper, Carey argues that students need to be engaged as co-producers of their education and that student engagement needs to be a continual process for this to occur, rather than something that happens periodically as a quality assurance mechanism.

Regardless as to whether there is agreement on the notions of consumerism, marketisation and commodification of higher education, general commentaries on student engagement, such as those illustrated above, do all at least have a common focus, which is the role and position of the student within their holistic educational experience. Whilst the scope defined in the method above limits the literature consulted for this review to the last ten years, there is a key paper from 2009 which has helped to shape student engagement in higher education, and which should be regarded as a springboard for the subsequent debate and discussion. Kuh (2009), a renowned student engagement commentator, discussed the role and contributions of the scholarship and institutional research about student engagement and its relevance for professionals involved in developing students and in enhancing the quality of the undergraduate experience. Kuh approaches student engagement holistically suggesting that it is "the time and effort that students devote to activities that are empirically linked to desired outcomes and what institutions do to induce students to participate in these activities" (Kuh, 2009, p. 683). In other words, student engagement can take any number of forms but is all about activity linked to outcomes. This activity can include engagement with teaching

and learning, with research or with extra-curricular activities. Often these can be associated with educational and enhancement outcomes (e.g. attainment, learning gain). Similarly, this activity can be about how students engage with the library or other student support services in order to seek support and assistance in achieving these outcomes. However, students engage in different ways and much of the general literature discusses how student engagement affects and influences overall learning gain and student attainment. In this respect 'student engagement' has become a sub-discipline within educational studies and there are many examples of research studies and practice-oriented literature dedicated to specific aspects of student engagement. These range from theoretical perspectives (Quaye et al., 2019) to handbooks from which university teachers and lecturers can gain insight and ideas around innovative student engagement practices (Barkley, 2010) (E. Dunne & Owen, 2013) (Lowe & El Hakim, 2020). Similarly, there are also examples of evidence based scholarship which focuses on student engagement for specific educational purposes, such as inclusion and diversity in teaching and learning (Glass et al., 2015) or student engagement in digital learning environments (Gourlay & Oliver, 2018).

Trowler (2010) and Kahu (2013) both discuss how students engage in their learning and development at university in different ways: behavioural; emotional; cognitive; psychological; socio-cultural; and, holistic. As librarians we can see some of these different forms of engagement taking place in our library spaces and environments, particularly around different behaviours and emotions that student demonstrate when using libraries and library services and as professional librarians, we are certainly in the habit of analysing the psychological and cognitive ways in which students engage with the academic library. With this in mind, it is necessary to look at student engagement in a slightly narrower context, that of the academic library, but at the same time understanding the broader debate and infrastructure surrounding holistic student engagement. As Carey explains: "Engagement is not about systems and procedures alone. An engagement culture needs to happen inside, as well as outside, the classroom. In this way, it extends beyond design and into the living curriculum to become a distinguishing feature of the learning and assessment strategy" (Carey, 2013a, p. 259).

Summary
Student engagement is both a broad term and a concept. It originated as a result of the changes to the higher education market in the western world and is focused on student co-ownership of their learning and higher education experience. There is some debate as to whether students are consumers of their higher education, but the practice of student engagement is sometimes seen as

an outcome of the marketization of higher education. Consequently, in its broadest and most general context student engagement is concerned with the holistic students' experience, and in particular their teaching and learning experiences.

Definitions of student engagement in academic libraries

The term 'student engagement' is itself awkward and somewhat contentious and is subject to several different interpretations. This in turn, as illustrated in the previous section, lends itself to quite different ways of researching and practicing student engagement. Before trying to define what 'student engagement' means for academic libraries, it would be useful to consider the explanations of the term in general. Trowler (2010) suggests that some of the confusion is down to geography and explains that "the term 'student engagement' has its historic roots in a body of work concerned with student involvement, enjoying widespread currency particularly in North America and Australasia, where it has been firmly entrenched through annual large scale national surveys. By way of contrast, the body of work produced in the U.K. which addresses student engagement, traces its roots back to other traditions, such as student feedback, student representation and student approaches to learning" (Trowler, 2010, p. 2). Trowler goes on to say that this effects the terminology and taxonomies associated with holistic student engagement which should effectively include: student feedback; student representation; student approaches to learning, institutional organisation; learning spaces; architectural design; and learning development.

This is reassuring in that the search of the literature pertaining to student engagement in academic libraries did indeed bring to the surface papers pertaining to all those areas identified by Trowler. This resulted in a very rich and varied selection of papers, articles and chapters, all of which discuss specific ways in which academic libraries and librarians engage with their students. The interesting thing about such a broad subject area, is the variety of scholarship that it generates. Whether discussing engaging students in an information literacy class, or getting student feedback on the installation of a water fountain, both fit within the broad definition and notion of student engagement.

Therefore, truly defining 'student engagement' in an academic library context is equally as difficult as trying to find a pure definition from a more generalist or holistic point of view. However, two key papers have recently been published which try to simplify and clarify this. The first is from Schlak (2018) whose paper provides a critical contextualisation of academic libraries and engagement, and

in doing so contributes to the debate around how to define student engagement in academic libraries. Schlak provides a literature review around engagement and also introduces critical perspectives from outside the library literature, which demonstrate that 'engagement' is a variously defined and used term, but that generally speaking " student engagement can be viewed as an outcome of the library's efforts as well as a critical component of the library's contribution to the scholarly and cultural life of its parent institution" (Schlak, 2018, p. 133). In expounding on his investigation, Schlak segments student engagement with academic libraries into four categories. Three of these relate directly to students' learning experiences: *student learning* where students actively engage with learning opportunities provided by the library (e.g. information literacy, library instruction, etc.); *citizenship and service-based learning* where students engage in the library facilities, resources and spaces for learning; *technology and programmatic learning experiences* where students engage in learning through library technology and digital behaviours. Schlak's fourth segment is referred to as *relational engagement* which he regards as a more intentional relationship building with students within a customer service context. In presenting this aspect Schlak acknowledges that in addition to a 'student as partner/collaborator' model, there also exists a provider/consumer relationship in which relational engagement can be used to obtain feedback, measure performance and potentially lead to service enhancements.

The second paper, which helps to simplify and clarify what we mean by 'student engagement' is by Pittaway (2016), writing about how her library engaged with its students to develop and shape services. Pittaway starts by asking what does an 'engaged student' look like, as opposed to a 'disengaged student' and argues that there are various levels of engagement with both learning and with libraries. She argues that students who are displaying behaviour influenced by internal and external factors, cannot simply be turned into 'engaged students', but acknowledges that by creating favourable conditions (e.g. supportive frameworks and opportunities) libraries can and should facilitate the likelihood of more engagement behaviours. In essence, one of the key roles that the academic library plays, is in engaging students with their learning, and to contribute to their success and attainment, and this context forms a significant part of this literature review. However, Pittaway suggests that her own interpretation of student engagement is relational and transactional and is "about working with students as partners to make positive changes to services, from learning spaces to online resources to customer services and more" (Pittaway, 2016, p. 250),

In acknowledging two quite different concepts of student engagement (i.e. that of engagement with learning, and relational engagement), it is easy to see that situating student engagement in

academic libraries can cross over into several areas and fields of study within academic librarianship including: marketing and communications; information literacy; teaching and learning; performance measurement; quality assurance; user-experience; space design and planning; access and inclusion; service model design; customer service. All these themes could easily warrant entire literature reviews in themselves and trying to cover them in any depth within this literature review would not be practical. Instead, the remainder of the review will present and synthesise the literature sourced, and which focuses on the concept of 'student engagement' under four categories:

- Literature about the role of the academic library in engaging students in their learning and attainment
- Literature which focuses on student engagement in respect of partnership and collaboration with academic libraries
- Literature dealing with student voice and opinion in academic libraries
- Literature reporting or discussing specific techniques or methods for student engagement

There are many occurrences of overlap between the four categories, therefore the one that is the 'best fit' has been selected under which to review each item.

Summary

As with defining holistic student engagement, defining student engagement with and in academic libraries is equally difficult. There are two broad, and arguably different, ways in which students can be engaged in their academic library services: through teaching and learning activity provided through or supported by the library; through providing feedback on, and bringing the student voice into, library service planning and development.

Engagement with learning

The first area to be reviewed is that of 'learning and teaching' - how academic librarians engage students in their learning through their library teaching and instruction. This part of the review could easily become a review of literature on information literacy and library induction, which is itself a whole LIS sub-discipline. Therefore, rather than discuss different pedagogies applied in library classrooms, or the benefits and disadvantages of different types of library teaching, this review will focus solely on literature where 'student engagement' is regarded as a key driver for library teaching and instruction. The common attribute within the scholarship reviewed, is that it is all written by practicing academic librarians, through the lens of engaging students with their overall learning. In engaging students with their learning there is a potential positive impact on student retention and

attainment. Such impact on the student learning experience, therefore, makes this form of student engagement with the library very powerful.

There are numerous case study and research papers which discuss how library instruction results in the development of lifelong learning and essential academic skills, therefore impacting on student retention and attainment (Haddow, 2013; Klipfel, 2014; Kuh & Gonyea, 2015; Soria et al., 2013). Mayer and Boules-Terry (2013) discuss how active learning can have a more lasting effect in terms of engaging students, and that this can be measured over a longer term through evaluation and assessment techniques. Much of the literature around student engagement in information literacy teaching suggests that where active learning approaches are used and librarians are creative and innovative, then students become better engaged with the activity or intervention. The 'Amazing Library Race' at Long Island University is one such example, where a problem-based learning approach has been applied to induction and information literacy, and which increased student engagement as the desired outcome (Boss et al., 2015). Other active learning innovations include examples of using a 'flipped classroom approach' in order to increase student engagement with library instruction, in both physical and digital learning environments (Campbell et al., 2015; Hawes & Adamson, 2016). Games, gamification and digital badges for information literacy also appear in the literature as examples of practice where student engagement is the focus for particular information literacy interventions (Rodgers & Puterbaugh, 2017; Smith & Baker, 2011; Walsh, 2017). Making use of students and asking them to share their reflections and experiences appears to be another innovative approach to developing engaging library instruction. This includes the use of students explaining and describing their own library experiences in library instruction and induction videos (Majekodunmi & Murnaghan, 2012), and initiatives around peer-to-peer learning in information literacy teaching. These include examples, such as those practiced at California Polytechnic University and Grand Valley State University, where students who have already acquired appropriate information literacy and research skills are deployed to provide peer support and engage other students in information literacy activities (Bodemer, 2014; O'Kelly et al., 2015). Similarly, a student peer-to-peer interview method is used in information literacy sessions at Western Carolina University and has proved successful in engaging students and developing their critical thinking skills, which can then be transferred to their wider studies (Schmidt, 2017).

The examples referred to so far are simply those which illustrate innovations within academic library teaching activity. They all come from practitioner-based literature and, as mentioned previously, overlap with the more specific information literacy literature. They are all examples of library

teaching where the academic librarians developing and delivering the teaching have been driven by student engagement and have consequently intentionally objectivised their teaching and learning activities. In all cases the driver is always to engage students in their holistic teaching and learning, with library instruction being an integral part of this. This form of engagement firmly falls into the segments of student engagement that Schlak refers to as student learning, service-based learning and programmatic learning (Schlak, 2018). The next category within the literature review is partnerships and collaboration, which is a very broad area within student engagement and continues to relate to students' engagement with learning, but also factors in other, more relational forms of engagement.

Summary

Academic librarians are increasingly involved in developing engaging teaching sessions. Their creative and innovative approaches to developing and delivering information literacy and general library instruction and induction therefore helps to engage students in their library-specific learning, as well as encouraging engagement in their holistic academic learning. The student experience of teaching and learning is therefore affected and impacted on by the engaged teaching interventions that academic librarians provide.

Partnership and collaboration

Another recent literature review suggests that academic libraries can be leaders in their respective institutions by adopting a user-centred philosophy and services that will promote life-long learning, enhance students' academic experience, and promote engagement, leading to retention within the institution (Oliveira, 2018). However, rather than just looking at teaching and learning interventions by the library, Olveira's review considers holistic library services, and describes different ways in which the library can be involved in student engagement, including the notion of 'partnerships'. This includes examples of libraries working in partnership with faculty and academic departments as with other service areas, such as IT services, writing centres, or student support services in order to engage students and contribute to student retention initiatives. Similarly, Weaver (2013) describes the whole student journey and analyses the various roles that the library plays within this. She suggests that one of the fundamental roles of the library is to support students in their academic engagement and that academic libraries need to continuously work in partnership with other areas of the university to achieve this.

In order to achieve a breadth of student engagement, at least where it is focused on academic experiences, it is important that academic libraries do not operate in isolation. Some of the literature focuses on very specific collaborations between the academic library and other departments in order to provide engaging spaces and experiences. For example, librarians at Texas State University collaborated with marketing and communications colleagues to develop an engaging 'library tattoo design' competition for students (Ballengee et al., 2019). In a similar way, yet applying quite different initiatives, Jalongo and McDevit (2015) discuss a collaboration which allowed therapy dogs to be brought into the library in order to engage students in their learning, whilst Mitchell (2013), reflects at length how drawing on experiences from the museums sector, collaborations should be formed in order to provide students with engaging, interactive digital information experiences to create a sense of 'theatre' using virtual reality in the library. Effectively there are many different types of partnership that academic libraries can be involved in, in order to enhance their student engagement or provide enhanced student experiences. One recurring partnership approach to providing engaging experiences for students is around reading, and leisure reading in particular. Libraries are considered a key partner in initiatives such as the Big Read in the United Kingdom (Morris, 2016) and cross-college common reader initiatives in general where students are encouraged to engage in reading as a leisure activity, but in doing so become engaged with the library and with campus life in general (Megwalu et al., 2017).

Students as partners

Whilst partnership across the university is clearly desirable in respect of libraries participating in effective and impactful student engagement, there has not yet been any mention of the student as partner with the academic library. In some of the general student engagement literature there is discussion about students being co-collaborators or co-producers in their academic experiences (Carey, 2013b). It follows then that higher education students need to be regarded as partners, or co-producers of their academic library experiences. Appleton and Abernethy (2013) and Pittaway (2016) take this approach in their respective papers when they discuss student voice initiatives and techniques, within a student-as-partner relationship, and both conclude that students need to be seen and engaged as equals in their academic library experiences, which in turn is essential for libraries to be able to develop and deliver responsive services and support. By treating students as peers in planning and development processes, power relations between the students and the institution are removed, and engagement can become more meaningful. Dunne and Owen's *Student Engagement Handbook*, whilst not about academic libraries, provides a wealth of reflections and

case studies about university partnerships with students and examples of ways to engage with students in practice and empowering them to take responsibility within decision-making processes. A lot of this partnership working is around capturing the student voice within library development and the ways and techniques of how this is most effectively accomplished. The remaining sections of the review will contribute to these discussions.

Summary

Much of the academic library literature about student engagement focuses on relational engagement, which manifests itself through partnerships and collaborations. These can be with other areas of the higher education institution, such as other service departments or with faculty and academic departments, but are often with the students themselves. Academic libraries operate closely with their student bodies and are able to form effective partnerships and collaborations so that students become more engaged with the library and feel a sense of ownership of their library services.

Student voice

Student feedback

Actively seeking student opinion or feedback into academic library services is commonplace. Such activity has often been associated with quality assurance or performance measurement and libraries often seek to find out how they are performing and how satisfied students are with services by asking them. Traditionally this took the form of a library survey, but there are many other ways in which academic librarians now seek out the student voice. Similarly gathering 'customer' insight or opinion is also associated with the concept of the 'marketised' higher education environment, and academic libraries use such insight to help inform service developments and ensure that they are continually responsive to student needs and requirements. Peacemaker and Heinze (2015) make this case and suggest that academic libraries need to look at the business and commercial sector where there has been a recent shift away from purely transactional relationships in favour of a more focused customer engagement approach.

Surveys, interviews and focus groups are all common methods of eliciting student feedback but they have not always been regarded as forms of 'student engagement'. This is possibly because academic libraries had traditionally used such methods as a means of obtaining quantitative data about their services, rather than engaging with participants in a dialogic way. However, as the notion of 'student engagement' has evolved over the past twenty years, so too have the ways in which these

techniques have been developed and there are now many good examples of creativity and innovation in these areas. It is particularly interesting to observe that this is increasingly the case where academic libraries want to seek out specific student voices, or look at specific services or facilities. Examples include: using structured interviews to obtain feedback from community college commuter students (Regalado & Smale, 2015); bespoke questionnaires and semi-structured interviews in order to develop library services for specific cohorts of international students (Sharman, 2017). A study conducted in 2015 analysed the dialogic participatory approaches to partnerships in education in general and concluded that focus groups were a particularly effective way of engaging with students, allowing them to share their current educational experiences (Seale et al., 2015). There are several examples where the focus group format has been used innovatively in respect of the student voice in order to inform cultural change and development in academic libraries. Focus groups, and subsequent 'snowball groups' were a fundamental aspect of a student engagement initiative to bring Maori student voices into the process of developing the future of the library service at the Victoria University of Wellington (Esson et al., 2012)

Discussion between academic librarians and their students has proven to be a very effective way in which to engage with and to bring the 'student voice' to the surface. Focus groups are only one such platform for achieving this and much of the literature about 'student voice' and relational engagement also crosses into the literature about partnership and collaboration. Appleton and Abernethy (2013) discuss how through working together the library and the student union at Liverpool John Moores University formed a partnership whereby student voice initiatives allowed for a semi-consumerist approach to seeking student insight in order to develop services. They accomplish this in several ways including focusing on student representation on project boards and teams, 'critical friends' groups, and structured communications between the library and the student union. Working in collaboration is a key element of gaining meaningful student feedback and convening groups in order to elicit student voice is becoming increasingly popular, with several innovative ways of doing this emerging through the literature. For example, at the Hong Kong University of Science and Technology a user group engagement programme provides a systematic and strategic approach to the library engaging with several different student stakeholder groups. This has resulted in a variety of outcomes including service developments such as library space initiatives and pedagogic events and activities being held in the library (Chan & Wong, 2013). Bringing stakeholders together and 'connecting' with them to work and undertake activities together are key elements of participatory design. At Montana State University indigenous native American students were engaged in developing a design tool which incorporated a number of

techniques and activities to enable their student voices to be heard. These included: interviews; vision cards; mind maps; paper prototyping; journey maps; and, story boards – the end result being a whole culture change to the library operation and the cementing of this engagement as an ongoing approach (Young, 2018).

Student employment

Seeking the opinion of current and active students through engaging them in dialogue, such as the examples above, is a popular and proven method of capturing student voice. Academic libraries have embedded such methods into their quality assurance and performance measurement. However, there are several other approaches for engaging students, including employing students and proactively encouraging and enabling student representation in library activities and developments. In many instances employing students in libraries is a cost effective way of ensuring operational efficiency where students can be employed on a casual basis to perform routine tasks such as shelving and sorting books. Student employment is also often associated with institutional employability strategies, where the objectives and outcomes are around academic success and professional development of the students (Jacobson & Shuyler, 2013). Having said this, there are also several examples where academic libraries have proactively engaged students through employing them in order to bring the student voice directly into their service delivery and development. Kohler (2016) explains how students can be employed intentionally as front line library workers, and in doing so bring student insight directly into the library's customer service model. At the University of Illinois at Urbana-Champaign an integrated development programme for student library assistants includes a requirement that students in paid positions provide feedback and attend round table discussions and committees which deal with library service developments (Mestre & LeCrone, 2015). Meanwhile, Denda, and Hunter (2016) share their experiences of having a programme of student internships, in which students are asked to contribute their own student experiences and voice into library development projects. These are all good examples of academic libraries taking strategic advantage of having a critical mass of student employees and optimising their employment as a means of obtaining student feedback.

Student representation

Closely aligned with employment initiatives are representation initiatives, another method which can be used to engage students in projects or activities, specifically as a means to seek student voice and opinion. Carey (2013b) argues that student representation in academic structures, the academic organisation and course and programme development offers a mechanism for partnership which

can enhance engagement. In other words representation can lead to increased engagement, and is in itself an engagement activity. Student representation in academic libraries can be achieved through formalising student library representatives, where students take on roles and responsibilities to liaise with fellow students and bring their opinions and suggestions back into library developments and operations (Harris, 2018; Miller, 2011). Alternatively some academic libraries choose to have formal channels for student representation, such as student advisory boards (Scharf et al., 2015) or more specific roles for student representatives such as 'knowledge ambassadors' (Gikandi & Ndungu, 2018) or 'peer mentors' which is the case with the Learning Commons student ambassador roles in place at the Victoria University Library in Melbourne (Tout et al., 2014).

Engaged student roles, whether through employment or representation, are not new to academic libraries. In effect such roles have developed over several years, learning from previous experience and improving access to authentic student voices and opinions for feeding into responsive library service developments. The objectives across all the initiatives discussed around student employment and student engagement are about bringing the students' experiences and expectations of their library service directly into the library's operational and strategic development infrastructure. In doing so, such activity ensures that library services can be responsive and potentially act more quickly, where changes to services need to take place.

Ethnography and space planning
Space planning and design is often an area of library management which lends itself to stakeholder or student engagement. Participatory design approaches in respect of library buildings is well documented and early engagement allows for different stakeholder groups to better understand each other's needs and requirements and fosters a sense of community within library design projects (Meunier & Eigenbrodt, 2014). However, one of the most prolific student voice arenas within the academic library literature is that of 'ethnography' and the role that this plays in library space planning and design. There is enough literature and scholarship in this area to justify a new and up-to-date literature review entirely dedicated to the role that ethnography plays in academic library student voice work. Indeed one of the more recent examples of this comes from Ramsden (2016), in which she reviews the library literature available on ethnographic methods, concluding that such methods usually return rich, context-specific data and evidence, which would otherwise be difficult to obtain. She suggests that ethnographic methods can be used for obtaining evidence and

data for a whole range of library services and facilities. Dunne (2016) describes an ethnographic study at Dublin City University Library which was intended to identify how, when and where final year undergraduate students study, with a particular focus on their learning and research environments. This was achieved through some standard ethnographic techniques such as overt observations, reflective journals and retrospective interviews. Similarly, a piece of research across four New York research libraries used observations and semi-structured interviews to look at how research students make use of library and learning resources (Lopatovska & Regalado, 2016).

However, it is in the realm of library space design and planning, where ethnography has become a fundamental part of engaging students in academic libraries in recent years. Using ethnographic and anthropological techniques in order to observe students using library space and resources and to bring student voice and opinion of library space and web interfaces to the surface, has been practiced and discussed for some time (Kim Wu & Lanclos, 2011). There are some general techniques employed in ethnographic or User Experience (UX) approaches to engagement and these include things like focus groups, structured or semi-structured interviews as well as reflective activities, such as journals or retrospective interviews. There are also techniques, such as observation and mapping, which are specific to this approach. The final section of the review will discuss both general and ethnographic techniques used for student engagement.

Summary

In the same way that library partnerships with students have become popular and effective ways to ensure student engagement, so too have the many 'student voice' initiatives developed over recent years. 'Student voice' expands upon traditional user feedback work, but has become more conversational, dialogic and discussion based over recent years, coinciding with the growth of student partnerships with libraries. There are many approaches to capturing student voice, including employment of students, student representation initiatives and ethnographic methods. They are all useful ways of enabling students to engage with their academic libraries, and subsequently for academic libraries to obtain authentic student voices for informing responsive service plans and developments.

Student engagement techniques and methods

A lot of the literature about student engagement in academic libraries naturally focuses on methods and techniques practiced and required for effective engagement with library instruction and teaching and for seeking out and responding to the student voice. As conceptual areas, these have been covered in the review, but detail of the techniques and methods have been intentionally kept until the end. Literature about pedagogic techniques employed in teaching has been excluded as this overlaps too much with the scholarship around library teaching and learning. Therefore, the focus of this final section will be on methods of relational student engagement in academic libraries.

Focus groups

As briefly mentioned above, focus groups are regarded as effective ways in which to engage students with library service planning and are often used to generate conversations and discussions about how library services can be improved. They provide a platform for students to voice their opinions and concerns, usually within a focused 'service' or 'project' level discussion and there are several examples of such projects in the literature which describe how focus groups are best managed to achieve this (Conrad & Alvarez, 2016; Oddy, 2015; Pittaway, 2016). Focus groups are often used within a mixed methods approach, but are also often used as a single qualitative method for surfacing student voice into library projects. Where academic libraries have used focus groups as one of a range of methods, this is often intended to generate more qualitative data after having engaged students through a quantitative method. For example, at the University of Leicester focus groups were used to gather deeper student voice data after using a 'failure demand' analysis on their enquiry emails in order to inform their service improvements through more experiential evidence. The focus groups in this instance were also used to test assumptions which had arisen from the quantitative method (Aitkins et al., 2015). Focus groups can also often be used as a platform or 'springboard' from which to develop other student engagement interventions. For example, at the University of Birmingham focus groups were carried out to gather student insight and develop customer journey maps around 12 specific student library experiences that had been identified and needed to be further developed. (Andrews & Eade, 2013).

Interviews/surveys

The student engagement literature contains many practitioner examples of librarians effectively using library surveys or individual interviews with students. Surveys can be useful for engaging large numbers of students in library activity and gathering a critical mass of student voice and insight (Miller & Hinnant, 2016). Shreeve and Chelin (2014) discuss a successful combination of surveys and interviews used to engage students in considering and discussing information skills interventions

made by librarians. Hostetler and DeSilva (2016) describe how they used a survey in order to engage remote branch- librar- based students with library service planning discussions. There are also some specific examples of interviews which can be used for space planning initiatives. Matthews, Andrews and Adams (2011) describe how, at the University of Queensland, they were able to physically interview students within their library social learning spaces in order to get their opinion on these social learning spaces, while Jaskowiak et al (2019) describe a retrospective series of interviews to engage students and find out how satisfied they were with a library refurbishment project.

Ethnographic techniques

As previously explained, there is a wealth of literature around the benefits and successes of using ethnographic and anthropological methods to engage students in academic libraries. Inclusion in a section about methods of student engagement does not really do this corpus justice, but for the sake of completeness a brief review of the student engagement 'ethnography' literature follows.

A survey and analysis of 81 different library-based ethnographic studies was conducted in 2012 and included techniques such as observation, fieldwork, cultural probes, and methods already reviewed such as focus groups and interviews (Khoo et al., 2012). The conclusions of this analysis was that ethnographic approaches are indeed worthwhile for engaging students in library space planning and also in enabling rapid student engagement with other service developments. A more recent review of ethnographic methods used in libraries draws similar conclusions describing how such techniques enable student engagement in many different aspects of library service and facilities planning (Ramsden, 2016).

Ethnographic studies of academic library use and the behaviour of students tend to involve mixed or multiple methods of data capture, which in turn manifests itself as multiple student engagement activities. Semi-structured interviews are frequently used in ethnographic and UX projects in academic libraries as a way of triangulating with data obtained through other activities. For example, applied ethnographic methods used at the University of Huddersfield involved retrospective process interviews alongside some cognitive mapping activity to engage students and elicit how they made use of learning spaces for studying (Jensen et al., 2019). A recent space study at the Pennsylvania State University Library made use of a mixed method approach which used observations, followed by focus groups and semi-structured interviews, as well as a UX café, where students are offered coffee in exchange for a brief UX interview about their library space usage (Borrelli et al., 2019).

Reflective activities are also popular ethnographic techniques used to engage students in library planning. Reflective journals are one such method and there are several examples detailed in the literature. Bauer (2018) describes a project in which journaling was used in order to obtain experiential data about how business students use library resources. In this instance the method was used so that the researcher-librarian could capture students' research process experience in their own words, therefore providing a deeper, more nuanced understanding of a particular cohort's requirements. Sykes (2014) describes diary mapping as a useful and cost-effective way of engaging students in service development, having encouraged a small cohort to keep diaries of their study habits and library usage. Ramsden and Carey (2014) also applied this method to good effect, as part of a wider mixed method approach to space planning, which also included students taking photographs of library spaces and reflecting on them later. Visual mapping and photo journals can sometimes be used to complement written diaries. This was the case with a longitudinal study into how students create and interact with print and digital texts, in which a multi-modal journaling method was applied, engaging students in reflection through photographs, drawings, videos and textual notes in order to understand how students relate to print and digital texts and the devices they use for their learning (Gourlay et al., 2015).

Observation, is a key element of UX and anthropological techniques, but static observation of student behaviour and student usage of library services is not in itself a form of engagement. Many of the examples available in the literature use mixed method approaches, in which observation is used alongside more engaging methods, but there are also several examples of students engaging in observation who do the actual observing and analysis of the resulting data (Allan, 2016; Andrews et al., 2016; Appleton et al., 2016). Where this occurs students become engaged in the process and techniques of UX and student engagement, and are able to relate to and own any subsequent service developments. In one of the above examples, the student team who were involved in the UX work went on "to become advocates for the UX project and ambassadors for Library Services in general and have subsequently been involved in other projects and activities run by Library Services" (Appleton et al., 2016, p. 66).

There are also several case studies sharing bespoke ethnographic techniques, which individual library services develop in order to engage students in very specific service developments. Examples include interactive email campaigns to invite students to comment on accessibility issues through using screen grabs of potential new catalogue interfaces (Carden et al., 2016), or the online 'card-

sorting' activity developed at Robert Morris University to test out the library website usability and to help understand how students categorise information (Paladino et al., 2017).

In many cases ethnographic projects, and projects incorporating participatory design, carried out in libraries are designed to engage students in several different ways so that academic librarians can obtain rich data and get student voice into their service developments. The literature available includes some detailed reports of large scale, longitudinal mixed method UX approaches, all of them containing multiple examples of student engagement (Andrews et al., 2016; O'Kelly et al., 2015; Pierard & Lee, 2011; Tomlin et al., 2017). An example of one particularly ambitious multi-method project is the 'A Day in the Life' Project which engaged students across eight different higher education institutions in order to develop a cartography of students' academic lives and the place of their respective academic libraries within them. The specific method consisted of periodically sending the 205 student participants a text-message-based survey during the course of an academic day, followed by qualitative ethnographic interviews (Asher et al., 2017).

Summary

Academic librarians have tried, tested and developed many methods and techniques for engaging with their students. The LIS literature contains a multitude of case studies and examples of good practice which demonstrate the effective application of these techniques in order that higher education students have an authentic voice in the development of the support, services and facilities provided by their libraries.

Conclusion

Student engagement has become increasingly essential and embedded within the higher education sector in recent years. It is associated with universities being responsive to the requirements, needs and expectations of students. As a result of a more marketised and commodified higher education environment, students demand more of a voice and influence in their education and this has resulted in the emergence of students being regarded as partners, collaborators and co-creators of their own education. Consequently, student engagement is widely encouraged and the literature suggests that it takes place at two different levels: engagement with teaching and learning and the associated outcomes of retention and attainment; relational engagement with structures and services within the institution which complement the holistic student experience. Student engagement in academic libraries falls into both these categories, and academic librarians throughout the world have become highly motivated in ensuring that academic library services are

responsive and 'fit for purpose' for their cohorts. They have embraced and excelled at student engagement as a result of this, and this is very evident in the literature reviewed. In recent years, library and information workers have needed to adapt and change, particularly in the digital age with the need to develop digital library services. Academic libraries have also needed to be flexible in adapting to the neo-liberal, marketised higher educational environment, and this has meant become more service oriented and responsive to students as customers. Developing library services and striving for excellence have become more important than ever, and ensuring that students are involved in all elements of library planning has meant that academic libraries and librarians have very quickly become adept and expert in many forms of student engagement. Evidence of this is the wealth of literature available about academic library student engagement initiatives, all of which presents them in a very positive and effective light. Although, there is very little debate about the quality and relevance of the student engagement in academic libraries, neither is there any evidence that academic libraries and librarians are failing in their student engagement work. This may be something that could be investigated through future research.

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