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Escape the welcome cliché: Designing educational escape rooms to enhance students' learning experience

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Abstract

The University of Surrey Library and Learning Support Services (LLSS) recognised an increasing need to transform its welcome, induction and orientation activities for students. Past activities have entailed delivering information to students in ways which may have led to information overload and lack of engagement by students with library services. The LLSS have been exploring innovative ways to welcome students to university, moving away from didactic approaches. This paper presents one such innovation produced among a series of activities during 2017/18, an educational escape room, informed by the work of Walsh (2017). This activity invited students to solve a series of themed puzzles in the escape room, introducing them to library services and information literacy (IL) skills to support their studies. This report provides an account of the challenges and positive outcomes encountered in designing the escape room, with a view to sharing good learning and teaching practice.

Keywords

education; escape room; information literacy; induction; learning; library; orientation; playful learning; support services; teaching; UK; welcome

1. Introduction

From 2016, the Library and Learning Support Services (LLSS) at the University of Surrey embarked upon a review of its existing 'Welcome' provisions, recognising an increasing need to improve this experience for students. Historically, library 'Welcome' sessions – often referred to

in the literature as 'induction' and 'orientation' activities – have focussed on transmitting information about library services, such as printing and borrowing, to students. Taking place during 'Week 0' (commonly referred to in other Higher Education Institutions [HEIs] as Welcome Week or Freshers' Week), these sessions may be accompanied by significant information skills training. However, feedback from students at Surrey and evidence from educational literature (explored later in the paper) suggest that these approaches often result in increased anxiety among students about using university libraries (Mellon, 1986; Carlile, 2007).

LLSS staff decided that certain information about the Library's services, information literacy (IL) and academic skills development training would be more effective when delivered during teaching weeks later in the semester. In particular, skills training would be more effective for students when adopting a module-embedded approach (Bennet, Dunne & Carre, 2000). Therefore, staff wanted to design Welcome activities to gradually support students in their understanding of how the LLSS could be relevant to their studies and learning journey, rather than risk overwhelming students with excessive information and skills training. Moreover, this approach aimed to promote guidance for students on where to find help as and when it was required. The omission of in-depth skills training at this stage also meant that the delivery of Welcome activities could become consistent and standardised for quality. In turn, this would allow the LLSS to draw upon a broader pool of staff to deliver the activities, which could subsequently improve the long-term sustainability of Welcome delivery and better allocation of staff resources.

Once the aforementioned considerations were agreed, a team of staff within the LLSS was formed with the task of improving Surrey's Library Welcome activities for new students, with three core objectives: (1) To raise awareness among students of the services and provisions available within the LLSS to support their studies (2) To introduce students to relevant information and academic skills to support their studies in a timely manner (3) To enhance the relationship and engagement between students and the Library.

Following the Library's Welcome review, during 2017/18 the LLSS introduced a number of new Welcome activities delivered during the early weeks of the semester. These included a revamped 30 minute presentation delivered to each subject cohort; online tutorials offering support on using the library; and small group 'Essential' tours covering topics like using IT equipment and finding your way around the library. Whilst these activities helped support students in pragmatic ways, staff perceived an opportunity to use memorable and fun activities to achieve the objective of enhancing the relationship between the Library and students. Inspired by adopting innovative and Playful Learning approaches (Rice, 2009), the team decided to run a flagship educational escape room informed by the work of Walsh (2017). It was hoped that this type of activity, popular in commercial settings, would prove enjoyable to students and encourage them to engage with the LLSS by viewing the service as approachable.

2. Literature review

There is evidence in the literature which suggested to LLSS staff that it would be beneficial to adopt a new approach to Welcome activities. Murtagh, Ridley, Frings and Kerr-Pertic (2017) argue that student attendance in induction events has been found to correlate with academic outcomes; thus, improving induction can increase student attendance and engagement. This is a key area of interest for higher education (HE) professionals concerned with student retention and success.

An aspect of induction that has received significant scholarly attention is the timing of events. Among both university-wide induction researchers and library induction researchers, it is felt that the delivery of inductions during the first week of university limits the potential for student learning and engagement. Many students may not be ready to engage effectively with information given at that stage (Gale & Parker, 2014; Whitton, Jones, Wilson & Whitton 2014; Barton, 2017). Thus, Whitton et al. (2014) point out that academic information is often presented

to students before they have an understanding of the context in which it should be applied. They, along with Brooman and Darwent (2014) and Barton (2017), argue that information of this nature is better introduced to students at a later stage in the transition process. With this in mind, the LLSS were conscious about the timing of the Welcome activities delivered to students at Surrey.

Another area of induction that has been widely discussed is the design of activities. There is much discussion in the literature of library induction around making activities more engaging for students (Morgan, 2004; Burnett & Collins, 2007; Verlander & Scutt, 2009). However, many proposed solutions offer what may be considered surface-level engagement and fail to consider the lived experience and real needs of students attending university induction events. Alsford and Rose (2014) researched the experience of new students at their institution and make a convincing case for moving away from 'information transmission' models of induction and towards a student-centred approach, resisting the temptation to tell students everything we want them to know upon arrival at university. A move towards student-centeredness is evident in the work of researchers who have considered the 'whole' student and their induction experience, and who therefore argue for the facilitation of social interaction during induction activities. For instance, Brooman and Darwent (2014) found that increased levels of social integration were a key factor in the success of first year students at their institution. Hughes and Smail (2014) support this view, claiming that although new students have academic concerns early in their university experience; their practical and social needs take a higher priority. The literature suggested that it would be beneficial if LLSS staff were to deliver a playful and fun activity that would take into account the students' social needs.

Student-centeredness also includes considering students' previous experiences and being mindful of how students' expectation of university may affect the transition process. Maunder Cunliffe, Glavin, Mjali, and Rogers' (2013) investigation reveals that students come to university with a range of preconceptions and ideas about what university will be like, and what their experience will be. Regardless of what these preconceptions may be, Maunder et al. (2013) describe transition as a process of 'expectations versus reality' (p.143). Students' expectations of the university library have the potential to impact upon their use of it. Barton (2017) found that students' expectations of a university library were focussed on book provision and study space and did not tend to include an awareness of online resources or learning support services. Therefore, students may require time and ongoing support to become comfortable with these unfamiliar and unexpected elements of university life.

Studies have shown that students can be anxious about using the library and approaching library staff. As Carlile (2007) states:

'The term library anxiety was first used by Mellon in 1986 to describe the sense of fear and anxiety reported by 75% to 85% of the students she studied when confronted with the need to conduct research in an academic library for the first time.' (p.130)

Carlile (2007) reinforces that feelings of anxiety and intimidation can produce barriers for students using academic libraries, suggesting that:

'while few studies have focused on librarians as potential sources of library anxiety, some patterns of students' responses and researchers' observations emerge in the literature, suggesting that fear of asking questions, fear of approaching staff, fear of appearing ignorant, negative perceptions of librarians, and the unapproachability and non-availability of librarians may all contribute to feelings of inadequacy, lack of confidence and general feelings of anxiety and discomfort in the library environment.' (p.134)

Collectively, this points to the idea that there may be students who are silently struggling with their academic work, but are too anxious to take advantage of the range of help available to them for fear of approaching library staff and appearing ignorant.

In light of these findings, the LLSS staff felt that an educational escape room would offer a way to connect with students at Surrey and break through any barriers linked to library anxiety. This approach coincided with Carlile's (2007) suggestion that this could be achieved by offering students a positive experience of the library, consisting of friendly and approachable staff available within a safe environment. Linked to this, Walsh (2014, p.41) states that 'bringing play into the library space [...] can help us feel we are in a safe environment to experiment and to learn new things that we may otherwise be reluctant to do'.

Games are a useful tool for teaching basic introductory library skills because skills required to win games align with core IL skills that we desire students to develop, including: problem-solving, planning and critical thinking (Walsh, 2013). Skills associated with play include 'teamwork, communication, and delegation as well as critical thinking, attention to detail, and lateral thinking' (Nicholson, 2015, p.2), all of which are essential for students to develop, and which escape room games can help foster. Importantly, for the LLSS, this meant that we could design an educational escape room with learning outcomes that were accessible to a diverse range of students at Surrey regardless of their background, discipline or academic level.

Lastly, educational literature served to remind the LLSS that by offering a unique experience for students through Welcome activities, students were more likely to remember what they were taught. For example, Danforth (2011, p.67) states that by 'Hunting for information and then putting into practice what they've learned in a fun context makes the knowledge they've acquired that much more likely to sink in'. Therefore, we felt reassured that students were likely to remember key information and skills relevant to their studies if the educational escape room taught this in an engaging, exciting and different way.

3. Methodology

The educational escape room delivered by the LLSS was designed by a core project team, who drew upon Walsh's *Making escape rooms for educational purposes: A workbook* (2017). The team commenced the design of the escape room by developing a story arc linked to the history and context of the University of Surrey, details of which were provided by the Library's Archives and Special Collections. Importantly, this narrative helped tailor the escape room to students at Surrey in an attempt to foster a 'sense of belonging', ensuring that students felt accepted, valued, and encouraged as an individual (Goodenow, 1993).

The narrative described how the current University mascot, 'Steve the Stag', had been kidnapped by the University's long-forgotten – and consequently jealous – previous mascot, an eagle. The objective for students was to solve a series of puzzles to discover the Eagle's name (Oscar) and his legacy. He could then be forced to release 'Steve the Stag' and enable the students to escape from the room with Steve.

The narrative was communicated to students through printed and online marketing materials for the event, titled: 'Save the Stag Escape Room Experience'; but mostly, the narrative came to life through a video designed using online software, Powtoon (<https://youtu.be/5ZEgyUXK1fc>), which was presented to students when they began the escape room experience. The video also provided students with rules to help guide them through the game.

The workbook by Walsh (2017) helpfully instructed us to devise our learning objectives and subsequently build the puzzles and design of the escape room around these. Having identified that we wanted to raise students' awareness of services available within the LLSS that could support their studies, we devised puzzles linked to learning about each of the services, including: Archives and Special Collections; Library Customer Services; the Learning Development team; Additional Learning Support Services; and the Research Development team. Another learning objective was to show students how to use the Library Catalogue (SurreySearch) to access resources that might be useful for their studies, so a puzzle was designed around this.

To take into account students' learning diversities and potential lack of prior knowledge of university libraries, we ensured that the puzzles offered a variety of difficulty levels. We included clues, props and information around the room and facilitators were available to prompt students if necessary. This ensured that no prior knowledge was required for students to complete the puzzles.

In order to ensure all students participating in the experience achieved the intended learning objectives and developed a sense of teamwork, we opted for a linear/sequential approach (Walsh, 2017, p.29). The game was designed so that students were required to complete each puzzle to gain a letter, which eventually spelled out 'Oscar', leading to successful completion of the game.

The 'Save the Stag' escape room ran throughout Week 1 with six slots per day (Monday–Friday), offering a total of 30 slots. Students could sign up individually or in teams using Eventbrite. The game was designed to be completed within a 30 minute timeframe. This allowed enough time for meaningful learning to take place, and also – as requested by senior management – for a reasonable number of students to participate, thus making the staff investment in developing this activity worthwhile. However, we allowed 45 minutes for each game, which allowed for late arrivals, resetting of the room and de-briefing students after the activity. To maintain student momentum and keep to time, a countdown timer was used to manage each activity. This also meant we could generate a leader board showing student completion times.

The escape room team was encouraged to reach as many students as possible. Initially, it was decided that a minimum of three participants were required for the game, and a maximum of eight students could take part. However, during testing, we discovered that, for optimum engagement, the maximum team size should be six students. Thus, we had the capacity to accept up to 240 students to participate in the escape room. Each activity was facilitated by two members of staff who could guide students, offer hints (as per commercial escape rooms) and reset the room to ensure smooth logistics of each activity and produce a quality experience for students. The total facilitation hours totalled 45 hours for the week, requiring considerable staff time investment (implications of which are discussed later in this paper).

A small budget was allocated to purchase equipment to deliver a reasonable quality escape room, including padlocks, chains and prizes. Because the budget was limited, LLSS staff contributed handmade items and objects from home (including the Stag mascot, boxes, lights, and picture frames) to enhance the atmosphere and experience for students. Upon completion of each game, students were awarded a certificate and a small prize of sweets, and were given post-it notes to provide feedback about the experience which was used for evaluation purposes. The overall winners – the team with the quickest completion time –were rewarded with a more substantial prize, a stag brooch.

4. Findings, discussion and recommendations

Overall, LLSS staff found piloting the 'Save the Stag' escape room an incredibly rewarding experience. Members of the team who teach as part of their daily role, enjoyed designing the escape room because it offered an opportunity to engage in creative and innovative learning approaches. For those without teaching elements in their job, they enjoyed the chance to think creatively about how to connect and interact with the students. In addition, the escape room not only enhanced bonding for students, it also improved collegiality and collaboration among Library staff who came together from across different roles, bringing their areas of expertise to produce a quality escape room experience for students. This section of the paper will present the findings, discussions and recommendations linked to the practical considerations of designing educational escape rooms, feedback from students and other unexpected outcomes.

4.1 Resources, planning and logistics

Whilst designing the escape room had many positive outcomes to staff, the team also discovered that from the original conception to the final evaluation, the process was both relatively labour and resource intensive. Walsh's (2017) escape room workbook signposted us towards some constraints that we might face; however, the team encountered additional challenges, mostly linked to the availability of human and physical resources, limitations of rooms and timetabling.

In the planning stages, we discovered that to offer students a quality experience resources like locks, boxes, chains, and UV torches required for the game showed fairly significant start-up costs. Due to educational escape rooms being a new concept in HE, there were few real-world examples from other institutions as to how successful the activity might be. Therefore, caution was taken in investing considerable money and having the concept fail; hence many of the puzzles were handmade. Additionally, the Powtoon video used to inform the narrative required staff to learn how to use this software to produce the video. Producing resources and puzzles by hand meant that costs were reduced, which was seen favourably by senior management; however, this had to be offset against the time invested in creating objects to enhance the theme, narrative and puzzles. Therefore, we wish to stress that budget, resources and time should be carefully considered when designing educational escape rooms because they can often be more than you might initially anticipate.

With regard to logistics, we discovered that having a dependable booking system is essential when delivering escape rooms centrally. If escape rooms are timetabled into modules, then this could be more easily managed. We found that our chosen event platform, Eventbrite, proved challenging when multiple slots across the week were available, as there was some minor cases of double and/or missed bookings. Therefore, it is important to have a suitable event platform to ensure the smooth running of back-to-back booking slots and time buffers to counteract delays or unanticipated issues, such as breakages.

We anticipated delay factors including: late arrivals; time needed to welcome participants; resetting puzzles; participants not completing the activity in time (but wanting to finish the experience); closing the activity, and gathering feedback. Thus, we implemented prevention measures including: having a pool of 13 well-trained facilitators, a well-planned schedule, and sole reserved use of a dedicated training room within the Library. Whilst securing the room for the week was positive, the flip side was that we could not retain the room for a second week because of timetabling pressures. This reflects the importance of how the logistics of escape rooms requires conscientious forward planning.

4.2 Testing

The testing of the escape room was crucial in ensuring that it offered a quality experience and learning opportunity to orientate students to the LLSS. Participants were recruited through internal communications and word of mouth and were made up of three separate groups consisting of six to ten staff members from across the University. They were asked to complete a timed run-through of the game and adjustments were made after each occurrence based on the findings.

Testing helped identify unanticipated issues, including the need for additional subtly placed clues and hints (a method utilised in commercial escape rooms) and placing more emphasis on teamwork to ensure that all students were active and equal participants in the game. These changes ensured that teams were able to complete the game within the given timeframe (important both pragmatically and in a learning-centred sense), and that the activity was meeting the intended learning outcomes. We would reinforce that testing is an essential stage in designing educational escape rooms that should be prioritised before unveiling the activity.

4.3 Promotion and timing

The promotion and timing of delivering escape rooms in HE are important areas of consideration. As our escape room ran during the first teaching week at Surrey (Week 1) following Welcome Week, we discovered that we had a short window of opportunity to promote the escape room to students. In regards to this, whilst we had capacity for 240 students, the sign-ups amounted to over 100 students (including walk-ins). So, although the team were happy with this number, we recognised that not reaching full capacity could have been attributed to competing with other Welcome events and a lack of opportunity to fully promote the event. The latter point was captured through informal student feedback, with students commenting to staff, 'if they had known about the event they would have attended' and that 'they found out about it incidentally via word of mouth.' In fact, as word of mouth spread about the escape room, towards the end of Welcome Week, we could not meet the sign-up demand, and so students requested if they could take part the following week or in the future. Unfortunately, the requests could not be fulfilled due to staff teaching commitments and timetabling of the room. In hindsight, running the escape room later in the term could have given more time to promote the activity and ensure that students were fully aware that they were taking place; making the investment of staff time and resources more worthwhile. Additionally, delaying the escape room to later in the semester may have been better for students who, as suggested in our literature review, are often overwhelmed by transitioning into university study and life.

Other issues relating to the timing of delivering the escape room during Welcome is that the team did not quite achieve all of the planned activities that may have enhanced the escape room experience for students. This included having enough time to produce a summary handout for students relating to the learning outcomes to reinforce what they had learned. Therefore we would recommend creating handouts that could be used to assess the level of learning taking place. Additionally, whilst the team gathered qualitative feedback from students using post-it notes to evaluate the activity, a more robust method of evaluation would have been preferred to capture further constructive criticism and gain a stronger understanding of the additional skills that students acquired from participating in the activity. Although we were unable to do this, following-up with students after the event would have been useful to assess the longer-term learning impact. Nonetheless, as suggested useful feedback about the escape room was acquired from student which will be analysed in the forthcoming sections.

4.4 Feedback from students

A wealth of qualitative feedback from new and returning students revealed that they viewed the 'Save the Stag' escape room experience positively. During the process of collecting feedback, there was an opportunity to get to know students more. Here we were pleased to discover that those who took part in the escape room ranged from existing networks at the University (that is; flatmates, course mates and Student Union Societies), to individuals who did not know one another at all. This showed that the activity offered opportunities to develop friendships.

The feedback showed that students found the escape room fun; they engaged with the playful learning approach (Rice, 2009), experienced a sense of belonging and camaraderie, and, positively, learned new knowledge about the Library. Comments reflecting that students found the experience fun and enjoyable included: 'Had fun! *heart*'; 'FUN!'; 'Brilliant!'; 'Excellent Fun!! Loved it!'.

These comments give a sense of the level of engagement that students experienced in regards to the escape room, highlighting it as a useful approach to foster authentic student engagement in learning and teaching activities. As the feedback went on to suggest, this can lead to students wanting to participate in more activities adopting playful learning approaches: 'AMAZING WANT MORE'; 'Can we have new escape room every week? SO LIT!!'; 'DO MORE!'; 'Great Fun! Do more!!'.

This showed that students were happy to engage with the Library for future events, which supports the idea that the escape room helped to foster a genuine 'sense of belonging' (Goodenow, 1993) to the institution, and importantly, to the Library; which was one of the main objectives of running the escape room. This also resonated in the way that students complimented and engaged with the Library in their feedback.

The idea of students experiencing a sense of belonging and their enthusiasm to engage with the Library was also captured in the feedback comments:

'One of the most memorable afternoons at Surrey! LOVED THIS!'

'Lots of fun, nice to play with friends :)'

'After nearly 4 years at uni, this is the first time we've had the chance to do something as different and as fun as this in the library. Very well run. Thank you! Makes a changes from lectures.'

'It was well lit! 10/10 for group bonding experience! #BetterthanLondonEscapeRoom'

Here feedback with reference to friendships and group bonding illustrate a connection and/or community among the student body at the University. In relation to the idea of friendships, there were also a number of seemingly 'random' comments from students, such as: 'OSCAR IS A WEIRDO! GEEZ...'.

However, the word 'Oscar' is a key reference in solving the final puzzle in the activity. Thus, it could be suggested that students were offering others hints and tips on how to complete the game, which could reinforce the argument that students were attempting to show support towards one another. In turn, this encapsulates the aforementioned discussions of developing a sense of belonging.

Finally, the qualitative feedback showed that we implemented a range of difficulty levels to suit diverse abilities which allowed everyone to participate and successfully complete the escape room at their own pace:

'10/10 v funny. We were TERRIBLE ha!'

'MADE ME FEEL SMART FOR 30 MINS. THANKS :)'

'TOO EASY'

'Please do another one!!! So much fun. Good level of difficulty! :)'

'AMAZING! Some were really difficult but it was great fun. Please do again!'

These comments demonstrate that students on the whole enjoyed taking part in the escape room and the challenge it presented. They encouraged us to run more events like this and showed a strong sense of belonging to each other and the Library. This shows that they saw the Library as an approachable environment they wanted to spend more time in.

Future implementations of the game might benefit from a more robust evaluation method; one that is more in-depth and allows for assessment of the students' learning gains.

4.5 Some unexpected outcomes

Whilst the escape room was meticulously planned and contingency measures were in place to pre-empt outcomes, the team encountered several small but significant unexpected – but welcome – outcomes. For example, although the target audience was first year students new to the University, we discovered that students in their second and final year also signed up to the escape room. This was a further consequence of using the event platform Eventbrite, which meant that we had little control of which students signed up. Nonetheless, the decision to accept students regardless of level to participate in the escape room was felt to be appropriate

in meeting the objective of 'enhancing the relationship between students and the Library', because it helped the LLSS build rapport with a diverse range of students at Surrey.

Although the countdown timer implemented for the escape room was intended to be a pragmatic consideration for us to manage the logistics of the activity, we discovered that the timer unveiled a highly competitive attitude among students. This was further recognised in students' meticulous interest in where they scored on the leader board. We believe that these two items positively fostered team spirit among the students, strengthening a sense of belonging through the connectedness and community that they were a part of. This shows that even these small ideas can have a wider impact.

5. Conclusion

This paper has shown some of the key benefits of adopting playful learning approaches (Rice, 2009) in welcome, orientation and induction activities, particularly in the context of central services like libraries. Specifically, for the LLSS at the University of Surrey, piloting an escape room as part of 2017/18 Library Welcome proved to be successful. We achieved our objectives of raising awareness of the Library services and provisions, introducing students to some information skills support, and enhancing relationships between students and the Library. This enabled us to address feedback from the previous Welcome activities, showing how we are responding to the changing needs of our students in their transition into university life and study.

Feedback about the escape room from students showed that they responded positively to this innovative event and made further requests for repeat sessions. It also showed that it made the Library less daunting to students, with the result that there is a greater possibility they will now approach and use the services when they require them.

As this paper has explored, developing innovative and playful Welcome activities can be challenging, as such events may require considerable time and staff resources. Nonetheless, these challenges are outweighed by many positive and unexpected benefits, such as the sense of belonging and authentic camaraderie among the students and the Library. In sum, we would encourage those involved in welcome, induction and orientation activities to be brave in adopting innovative approaches to learning and teaching activities, as the outcomes can be very positive in enhancing students' early experiences in university life and study.

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