Students' emotional engagement, motivation and behaviour over the life of an online course: reflections on two market research case studies

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Abstract

Since 2013, Leeds Beckett has carried out two studies, working with market researchers, into students' feelings and perceptions of online courses and their learning context. This work has been conducted outside routine data collection for statistical reporting to regulatory agencies, as these exercises do not explore a student's engagement or behaviour in a rich enough way to assist practitioners in the design of learning products, services and experiences.

The unstated philosophy of both studies discussed has been to ground learning behaviour, and hence engagement, in the whole life of the individual student and, in the second study, over an extended time period. This includes the student's emotional life. The role of emotions in learning has been explored by researchers but is also of interest to practitioners who, engage with students in a real life, rather than experimental, context. This paper describes these two studies, their findings and their value in developing and delivering online courses. The first study (2014) was entirely qualitative. It covered a small sample, in a narrow time window, but provided rich, nuanced insights into learning context and motivation. The second study (2016) was a longitudinal study of a much larger sample of students, using a mix of qualitative research and quantitative data collection. Both studies help us contextualise the 'online student', whose presence and activities online are subject to institutional measurement, in the 'whole person' of the student.

Keywords: emotion, engagement, online student, qualitative research, customer, net promoter score, satisfaction, marketing research

1. Introduction

Leeds Beckett University, with around 24,000 students, has been running distance learning courses for almost 25 years. The University set up a central Distance Learning Unit (DLU) to support the design and development of distance learning courses, and to shape how they were promoted. Since its inception in 2013, the DLU has carried out two research studies into the University's online students. In the *2014 study*, the focus was an intensive review of the lives and learning of a small number of online learning students. The *2016 study* asked a much larger sample of students about engagement, emotions and other aspects of their experience of the course. It must be stressed that these studies were *marketing* research into Leeds Beckett's online courses, and thus had a commercial purpose, feeding back into course development and marketing, rather than disinterested social scientific research. (It was 'our courses' we were looking at, not 'engagement' in the abstract.) The two studies were carried out on behalf of DLU by the University's marketing department or a market research agency.

As these were exercises in marketing research, underlying the studies was an implicit understanding of the online student *as a customer* so that, for example, 'net promoter score', a marketing measure, was used to sum up their feelings about a course. The surveys did not assert (or hypothesise) that the student-university relationship is *essentially* a customer-supplier relationship, as this is highly contestable. However, certain aspects of a student's relationship have customer characteristics: searching and deciding between alternative providers of future experiences and

benefits, exercising due diligence in terms of provider offerings, and taking on a personalised financial obligation. Thus it seems appropriate to consider 'customer' issues in discussions of student behaviour, and to situate student engagement as commencing with the buying decision which is firstly a significant exercise of agency and secondly a symbolic statement of trust. The small financial incentives to encourage participation in the studies not only reimbursed students for their time but also symbolised their active participation in the process as decision-makers, active subjects not just objects generating data. Moreover we felt that the presentation aesthetics of marketing research offer a richer and more suggestive picture than social science presentations. In both cases, the research was governed by the ethical code of the Market Research Society.

The purpose of both exercises was to try to to reach beyond the student as a learner into a whole life perspective. This includes emotions. There is an increasing interest in the role of emotion in learning, but perhaps the phrase 'emotion in learning' is problematic, as it proposes a set of feelings in a boundaried psychological space ('learning') rather than in a fluid life narrative. Leaving that aside, there are many perspectives on emotion. As Tyng *et al* (2017, p2) assert: 'Although emotion has long being studied, it bears no single definition' but is instead an umbrella concept covering affective, cognitive, expressive and physiological components which may or may not cohere over time: they site *learning* in one of the primary neural networks proposed for all mammalian brains (the SEEKING module). Learning is both emotional and cognitive: 'affective states also cause or are accompanied by changes in the way in which individuals process information per se' (Niedenthal *et al*, 2006 p230). However few apply brain mapping techniques to semantic learning typical of education. It thus remains a commonplace that examinations and anxiety go hand in hand (but why should History be so terrifying.) It might also be observed, and this does arise from the studies, that students get anxious over *other* things related to their education than tests: a focus on test anxiety ignores all the other stressors on the student experience, not least the introduction, in the UK at least, of financial anxiety, clearly linked to an education, a raising of the stakes.

Evidence drawn from laboratory settings focuses on individuals, whereas social and educational settings are much richer in social cues. For Parkinson (2011) it is necessary to move away from talking about emotions as 'a response to private meaning, primarily susceptible to *informational* [italics added] influences from other people' (p411) as opposed to everyday life where 'emotions are oriented to other people's mutually responsive actions rather than pre-scripted behaviour sequences'. If learning is seen as a social and cultural process, then it depends on mastery and internalisation of social interactions, and here we bring in the role of teachers in creating the emotional climate of learning. Williams *et al* (2013, p209) show that positive emotions in a classroom environment can stimulate and enhance learning behaviours, by augmenting the scope of individuals' cognition, attention and action, and build psychological, social, intellectual and physical resources. They also conclude that 'an educator's attributes (eg display of enthusiasm, communication skills) can create a positive motivating environment for students' (p221). Black *et al* (2018) suggest that there has been an over focus on anxiety and that 'despite the importance of a broad range of emotions in learning, many emotions have received little attention by educational psychologists. Expecially lacking are studies of positive emotion, such as hope gratitude or admiration' (p45). However, Rowe *et al* cite continued challenges in asking the right questions about emotion and learning, suggesting that, as reported by faculty and students, 'negative emotions' can both promote and inhibit learning, 'given the complexity of interactions between variables such as task requirements, interpersonal relationships, achievement goals and cognitive resources'. There is perhaps no simple answer, for everybody, that positive or negative emotions promote or inhibit learning, but they are however important. Nor indeed do the same answers apply to different demographic cohorts: Freerkien (2017)'s study of language students and the interaction between affective, motivational and cognitive factors, conlcuded that for older learners motivation is more important, whereas for younger learners affective and contextual factors are more important: the classroom is thus a dynamic system. Even social-cultural factors, such as how learning is evidenced, publicised and 'performed' influence emotion. Huang (2011)'s meta-analysis suggested that 'mastery' goals elicited more positive emotions

than 'performance avoidance' goals: mastering a skill is more positive and effective than pursuing peformance avoidance goals to avoid looking stupid.

The online space, is not a classroom, however. Too easily, perhaps, do the designers of online spaces and online learning fall into a content-publishing mentality: the screen, with its promises of limitless scalability, is a distancing device as well as a space for interaction. Yang *et al* (2016) suggest that whilst elearning and the classroom are different in many ways, some of the same principles apply. They do suggest it is 'critical for online instructors and course designers to create a learning environment that is *supportive* and builds *confidence*[italics added]' espeically as help-seeking is critical in elearning (p13). Furthermore, we can draw from Rodriguez-Ardura *et al* (2016) who cite several studies showing that successful elearning environments can be designed to elicit a subjective experiences of presence through which elearners 'feel individually placed within a true, humanised, education environment' that students feel they are taking part 'in a true teaching-learning process, [and] interact with their lecturers and peer students' (p1008). The use of the word 'true' in those two phrases denotes a value, a feeling of authenticity, not just a statement of fact.

2. The 2014 study

2.1 Objectives and development

The 2014 study was carried out on behalf of DLU by Sarah Finney and Habib Lodal of the University's own marketing research department. The DLU's objectives were originally:

- To understand students' decision making processes and search behaviour, and their motivations as buyers;
- To establish and understand students' expectations prior to arriving on the course;
- To establish a depth of understanding of the 'real' distance learner's experience whilst studying on the course, to cover learning materials provided, tutor interactions, including level of tutor contact, interactions with technology and assessment;
- To assess thoughts/opinions on the overall level of service provided by the University;
- To understand what their 'ideal distance learner course' would look like.

Conversations between DLU and the University's market researchers enriched this significantly, to focus not just on the touch points of a student's formal engagement, but on contextual factors:

- The situating of learning within the spatial environment of the home;
- The actual as opposed to expected use of technology on these online courses;
- The learning activity within the context of family and work relationships;
- Key demographic data which determined their study logistics

2.2 Survey activity

The study engaged at with six students, with demographic characteristics in *Figure 1* below.

Student	Gender		Age					Partnership		Children		Employed?	
	M	F	20-29	30-39	40-49	50-59	60+	Single	Partner	YES	NO	YES	NO
1		X	X					X		X			Y
2		X	X						X		X	Y	
1		X		X				X			X	Y	
4	X			X					X	X		Y	
5	X				X				X	X		Y	
6	X		X					X			X		X

Figure 1 Sample demographics from 2014 in depth qualitative study

The study started with a one-hour telephone interview. The students then kept a study diary for two weeks, including a video as to how they were feeling, and this was followed at the end of the period by an additional interview. (This qualitative approach has precedents: O'Shea *et al* (2015) describe a qualitative survey of interviews with online learners.)

The study situated the student's relationship with the university within their other relationships, and covered pre-purchase behaviour, the justification being that every interaction with the University is a 'moment of truth' for the student's engagement with the institution: by choosing between universities (or between university and a job) the student is choosing between alternative futures. The actual purchase process, with the real risks of making a wrong choice, can be emotionally draining with a high possibility of post-purchase cognitive dissonance. The survey also covered studying as a *material* practice (not simply a cognitive exercise): we were interested in finding out exactly where in the home or workplace, and in what conditions, they study, how they used their devices and how many devices they used. Technology, and its embedding in life routines, is not transparent and neutral, but regulates and mediates the experience of learning. It was thus interesting to read Gourlay (2015) who suggests, in a similar vein, a reframing of 'student engagement which recognises the socio-material and radically distributed nature of human and non-human agency in day-to-day student study practice' (p403).

The students' motives for studying were career progression, but this was self-selected, reflecting the vocational focus of the University's distance learning courses. All of the participants had already taken an undergraduate degree and were employed and/or had a family when applying for a distance learning course. The ability to fit studying with their current lifestyle was the biggest factor in choosing distance learning, followed by the ability to attain a qualification and then price competitiveness. As learners had to juggle work and family, an enagement model which only addresses study encounters, rather than the personal decision and time-allocation ecosystem which online learners inhabit, ignores key aspects in their daily decision-making as students. Study is not perhaps an antecedent choice: learning is a set of contextually prioritised choices. They had plenty going on, therefore wanted to study without compromising their responsibilities and work commitments.

Concerns that distance learners had when applying on the course included: uncertainty of the course structure and delivery; accuracy as to their weekly study commitment in terms of hours; assessment criteria and module information. In effect these might constitute, in effect, in service marketing terms, the 'specification' of what they were going to experience. Even at the point of purchase, the students were typically reflective enough to consider their own motivation to study in the context of already challenging 'work/life' balances. Critical to their concerns were interactions and relationships with their tutors – how often and how they would be able to communicate. *Initially*, they were less concerned about socialising and engaging with fellow classmates. The tutor-student relationship, or imagined relationship, is critical.

As this is was a qualitative survey, we wanted to focus on the individual student, rather than generalities about them. Whatever statistical regularities may be derived, each item of data is lifted from a personally experienced history, from very diverse individuals. The University's market researchers developed a number of infographics, as in *Figure 2* below, to reinforce the focus on individual leaners. This allowed us at least to imagine the learning process in the life of the student.. The student is recognised as an individual agent and decision maker.
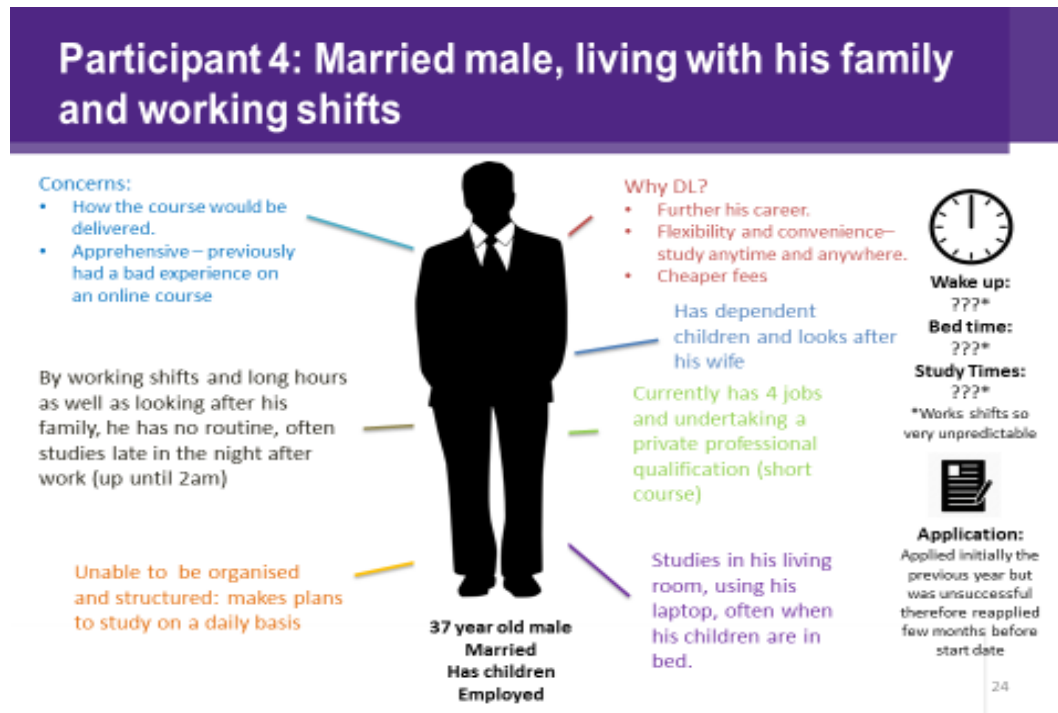

Participant 4: Married male, living with his family and working shifts

Concerns:
- How the course would be delivered.
- Apprehensive – previously had a bad experience on an online course

By working shifts and long hours as well as looking after his family, he has no routine, often studies late in the night after work (up until 2am)

Unable to be organised and structured: makes plans to study on a daily basis

37 year old male
Married
Has children
Employed

Why DL?
- Further his career.
- Flexibility and convenience– study anytime and anywhere.
- Cheaper fees

Has dependent children and looks after his wife

Currently has 4 jobs and undertaking a private professional qualification (short course)

Studies in his living room, using his laptop, often when his children are in bed.

Wake up:
???*
Bed time:
???*
Study Times:
???*
*Works shifts so very unpredictable

Application:
Applied initially the previous year but was unsuccessful therefore reapplied few months before start date

24

Figure 2: participant infographic: single male

2.3   Competing identities

The 2014 survey generated a number of reflections. Firstly, although focusing on students as customers and 'users' of learning as a 'service', the deployment of *marketing* research reflected the reality of their agency and decision-making to contextualise their study behaviour. Secondly, whilst employing customer survey techniques, it was humanistic and person-centred, which situates learning in the life of the student. We could therefore test as what might work for that student. The notion of 'student-centricity' clearly requires a fixed student identity, but the convenience of a dominant student identity, for us to dance around, is only realistic if the student is already immersed in academic surroundings and prioritises study (O'Shea *et al (*2015)). This cannot be expected of online students: criticising students for not prioritising a 'student' identity when they have so many other things to do, is unfair to the online student. The student may or may not be engaged, to a greater or lesser degree, than his or her digital avatar collected from management information. If there is a link between student identity and deep learning (Bliuc *et al*, 2011] then the University's task is to try to ensure how this learning can be captured by students who, by virtue of their life paths, cannot prioritise a student identity and juggle several identities.

We should not be surprised that students prioritised family first, work second and study third. The study habits of those with families as the dominant contextual factor were characterised by lack of structure owing to childcare and extra-curricular activity. Those whose main contextual influencer was work were enable to be more structured in their study. Distance learners with families tended not to study much over the weekends, unless they did not get time to study during the week.

2.4   Study as material practice

Online is supposed to be virtual, but it is a material and spatial practice. All of the participants stated that they studied at home, often in their living rooms with the TV on in the background. All of the participants used their laptops to study, usually placed on their lap as they sat on the couch. Some used two devices, a laptop and a tablet, at different times. None of the participants in this small survey suggested they used a desktop PC. Some listened to audio recordings over their tablet or phone while cooking. Those who have a tablet used it for reading journals and ebooks and/or to make short notes. Moreover, as can be seen from *Figure 3* below, the online course has to compete for space with other things.

Figure 3: participant infographic: online study as material practice; digital does not equal paperless.

This highlighted the importance of study logistics in reducing barriers to participation in the course. Despite the fact that the programme was precisely structured, students wanted all their learning materials available in advance. This is obviously very easy for purely online Universities but for Leeds Beckett, which sees online the end of a spectrum, and engaged in by the same academics as teach classroom courses, this creates a challenge. Students also wanted some live online tutorials where they can interact with their tutors, and for tutors to be available at specific times to answer any queries or pressing matters, possibly dedicated two hours a week where they would be available.

This 2014 study was suggestive but confirmed what was already our strategy. Developing online courses in a primarily classroom based University, and wishing to embed online courses in the Schools and classroom course teams rather than in a separate unit, DLU had to balance flexibility with structure. It also meant that we realised that supporting and helping students maintain their motivation through the course was achieved directly through instructional design but also through best practice on course delivery by tutors.

3. The 2016 study

The 2016 study used a different marketing research methodology and a bigger sample. We used a marketing research agency, *RedBrick Research* to carry out the survey, which enabled the survey to be scaled up to a greater number of students. It did not follow on exactly from the 2014 survey but shared some similar themes, as is shown in *Figure 4* below.

The primary purpose was to get a deep and detailed understanding of the student customer experience in order to capture the nuances of the distance learning student journey off campus.

Expectations

- What **attributes does a 'good distance learning course' need to have?**
- Whether Leeds Beckett courses **meet/don't meet expectations**.

Lifestyle and logistics

- How/if the course aligns to their lifestyle requirements.
- Attitudes/thoughts towards the logistics of the course.

Materials and communications

- Gather attitudes/thoughts on the course materials provided to students.
- Attitudes/thoughts towards Leeds Beckett course communication mediums.

Emotion and community

- Understand their emotional status while completing the course.
- How learners keep themselves motivated to do the course.
- Explore whether they feel part of a DL community or 'on their own

Figure 4: 2016 survey objectives

The survey and response were written as a business report, largely narrative in nature supported by data, but designed to assist decision making.

3.1 Research background

Unlike the 2014 survey, this longitudinal survey used a variety of quantitative and qualitative profiles. The research therefore was carried out over a 10 month period. An opening survey sent to 805 distance learners early in the academic year was completed by 134 respondees (16.67%). From this group, 65 distance learners were recruited to track Key Performance Indicators on (1) engagement, (2) motivation, (3) community, (4) satisfaction and (5) net promoter score (NPS), at regular times in the period. This enabled the market researchers to build a sense of the student journey and to identify student profiles. The researchers followed up the opening survey with 27 interviews and six focus groups. Video interviews were carried out with 25 participants using an app which enabled the experiences of opinions of the individuals behind the data to be brought to life. Given the richness of perspective offered in the 2014 survey, this seemed a good way of ensuring the student voice was heard above the data. A closing survey of 85 students, similar in structure to the opening survey, was carried out, so that engagement over time could be mapped.

3.2 Summary

This section linked the quantitative and qualitative work in an integrated narrative and set of practical recommendations and interventions. A more detailed review nuanced some of these conclusions. The reported findings were that 'satisfaction' is driven by the 'academic' experience which is defined as teaching and support. This is valued over all other things, including a sense of community. Feeling part of a community was seen in the opening survey as a bonus but not a necessity in driving satisfaction, but during the course some students became frustrated if their peers did not engage and welcomed the opportunity to engage with their fellow students. The KPI trackers showed a consistent score, finishing higher at the start of the year than at the end. The other finding was that the hours spent studying varied significantly from week to week, more and less than the recommended ten hours, reinforcing the point that students will moderate or accentuate their engagement according to non-study concerns. Whilst overall satisfaction was stable and strong, there was not always a consistent learning experience between modules, as tutors engaged in different ways, whereas students valued consistency across modules. The recommended interventions were largely logistical – swifter feedback, ensuring consistency, clear expectations of support and

management of 'hygiene' factors. Basic issues such as functioning technology were critical. These are broadly supportive of the DLU's own recommendations.

3.3   Motivations for study

The study asked two questions about students' reasons for studying: (1) 'what personal goals are you hoping to achieve whilst studying with Leeds Beckett University?'; and (2) 'what made you undertake the course you are studying at Leeds Beckett University?'. These distinguish between the ostensible rationale for studying from other less formal reasons for making the considerable investment of time and money in studying.

As in 2014, the ostensible motivation to undertake the course was career progress. Students were asked to write in what they felt and this revealed a richer variety of motivators: 5% wanted to 'escape from the current situation', 10% wanted 'to improve the standard of living for myself and my family'; and others included 'learning new skills', a 'sense of challenge', 'intellectual stimulation', 'improve quality of life', 'gain new experiences' 'get my dream job' 'gain more confidence'. So, as well as an instrumental calculus of career development, there appears to be an emotional and experiential aspiration, revealed when we asked students to write about themselves. All this suggests that some students are imagining alternative better futures and emotional states, to which career development provides access, and the learning provides a license to construct future life scenarios.

3.4   The teaching or academic experience

These KPIs measured satisfaction with various aspects of the 'teaching' or academic experience, on a Likert scale from 'very dissatisfied' to 'very satisfied'. Fortunately, 82% were satisfied or very satisfied overall which, as a matter of interest, is not dissimilar from similar measures recorded in more formal data collection. Satisfaction was broken down into further sub-questions covering: (1) the overall academic experience, (2) academic advice and support, (3) non-academic advice and support, (4) assessment methods, (5) course materials, (6) the teaching standards, (7) course structure and (8) delivery.

Support from academic staff was most important. Students wanted a 'personal touch' from academic tutors. They also wanted a single contact point to turn to in order to sort out problems quickly. As they are investing time and money on a high stakes purchase, and juggle lots of demands purely self-service solutions are not welcomed. They expected consistency between modules and from one module to another. This desire has implications for how academic colleagues bring their own personality and creativity into the work. Students expected to understand how feedback would be delivered and when, and is an area which can be most dissatisfying. Departure from expectations that causes most concern. There was no significant correlation between a student's satisfaction with their academic experience and time spent studying, although it did affect their emotional state.

3.5   The social experience: anxiety, community, emotion

The researchers reviewed student behaviour outside their course. Students juggled multiple elements which made it difficult for them to spend as much time as they wanted on the study: over 30% found it difficult to set aside enough time. Consequently, wasting precious time through non-availability of materials, for example, should be avoided. Outside the student encounter, they had several concerns. When asked what worried students most, the most significant concern was work-life balance (68%), more than the 62% concerned with academic success. This remained throughout the course. 24% were concerned with their emotional wellbeing and 25% were concerned with the impact of study on their relationships (personal and professional), and 30% were worried about money at the beginning of the period (although this declined to 21% at the end). As noted above, studies which focus solely on test anxiety as the dominant academic emotion fail to hear all this additional 'noise'.

This element of the survey considered community: 55% felt part of a community. Definitions of 'community' varied from student to student, and were be driven by the course experience, for

example, formal discussion groups, or informal networks (Facebook or WhatsApp) set up outside academic oversight. Although community was not a motive for being on course, distance learners who *felt* part of a community were more likely to be satisfied with their course. The report also suggested that student engagement with social media and online learning platforms was the best way to generate community. Both opening and closing surveys asked students to describe their emotional state, which obviously changed through the process.
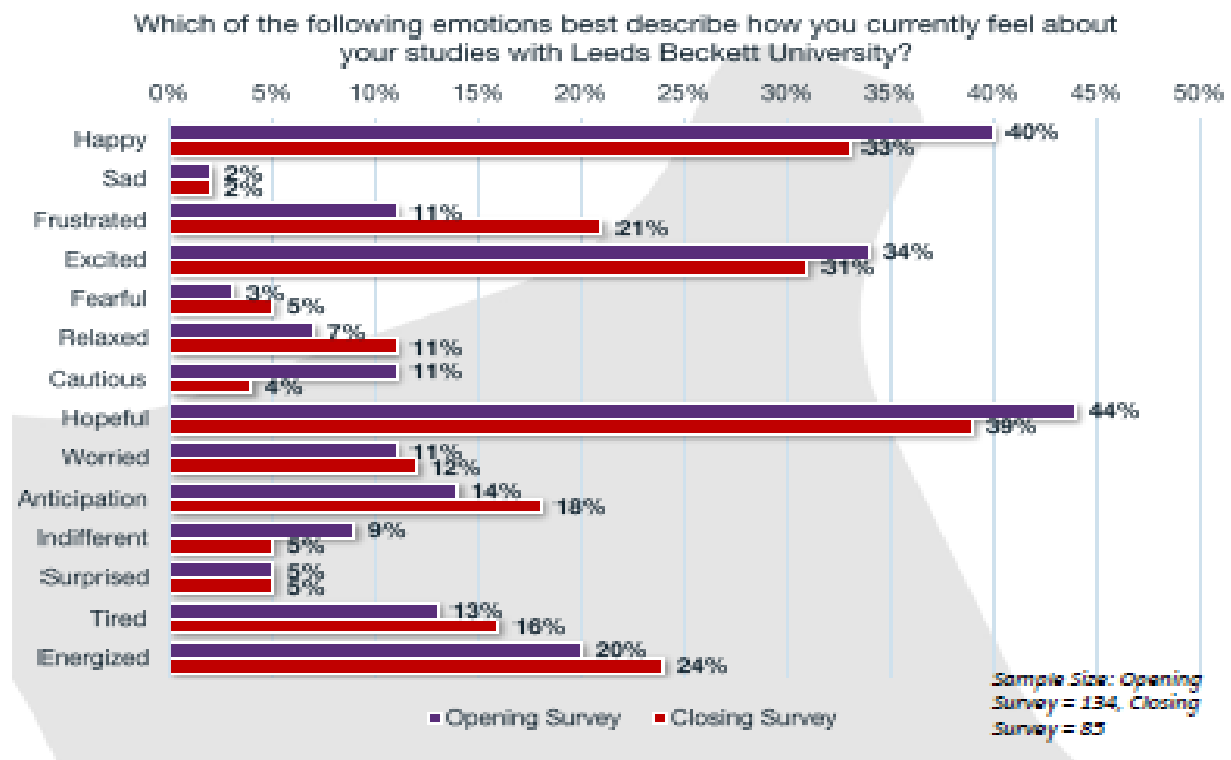
Which of the following emotions best describe how you currently feel about your studies with Leeds Beckett University?

Emotion	Opening Survey	Closing Survey
Happy	40%	33%
Sad	2%	2%
Frustrated	11%	21%
Excited	34%	31%
Fearful	3%	5%
Relaxed	7%	11%
Cautious	11%	4%
Hopeful	44%	39%
Worried	11%	12%
Anticipation	14%	18%
Indifferent	9%	5%
Surprised	5%	5%
Tired	13%	16%
Energized	20%	24%

Sample Size: Opening Survey = 134, Closing Survey = 85

Figure 5: Comparison of emotional state at the beginning (upper line) and end (lower line) of the survey

Older distance learners are also more likely to feel 'happy' or 'excited' about their course than younger learners. Students who spent more time studying described more positive emotional states. Similarly, students who felt more part of a community expressed more emotional positivity, and they described emotions such as 'excited' or 'energised. There was also a link between positive emotions and satisfaction: those students who are satisfied with their learning experience are more likely to use emotions such as 'hopeful' or 'energised' to describe how they currently feel about their studies. Those who disagree that they feel part of a distance learning community are more likely to use emotions such as 'frustrated'. Consequently, although being part of a community was not a priority, compared to the academic experience, it does seem to have impacted the reported emotional state and satisfaction. Community might be more powerful than the overtly stated prioritisation of students might suggest.

Note that the survey did not focus on particular 'academic' emotions (such as interest, boredom) which are held to be relevant to study, but on feelings in general. This reflected the multiple identities that students had to enact, and their expectations. Whilst it might be easy to compartmentalise learning emotions in the laboratory, it is perhaps much harder to do so in the lives of students' themselves. Even so, what was interesting was that very few respondents described their feelings in terms of typical language as 'mastery' or 'performance avoidance':

There is a further link of emotion to Net Promoter Scores. Students who spend more time studying and students who felt part of a community were more likely to recommend more recommend the course to others. 72% of distance learners who spent eleven or more hours a week

studying rated the experience as eight or higher (out of ten). This compares to 55% of learners who spend less than eleven hours each week studying. Feeling part of a community also has an impact on the likelihood a distance learner will recommend the University. 61% of students that feel part of a distance learning community are 'promoters' of the University (giving scores of 9 or 10). Leeds Beckett's overall NPS score is +22 but this rose to +24 by the end of the study.

3.6 The social experience: motivation and engagement

Motivation and engagement were conceptualised separately. During the KPI tracking exericise, students were asked to score their levels of motivation. Motivation and engagement did vary according to assessment deadline, reflected in *Figure 6* below.
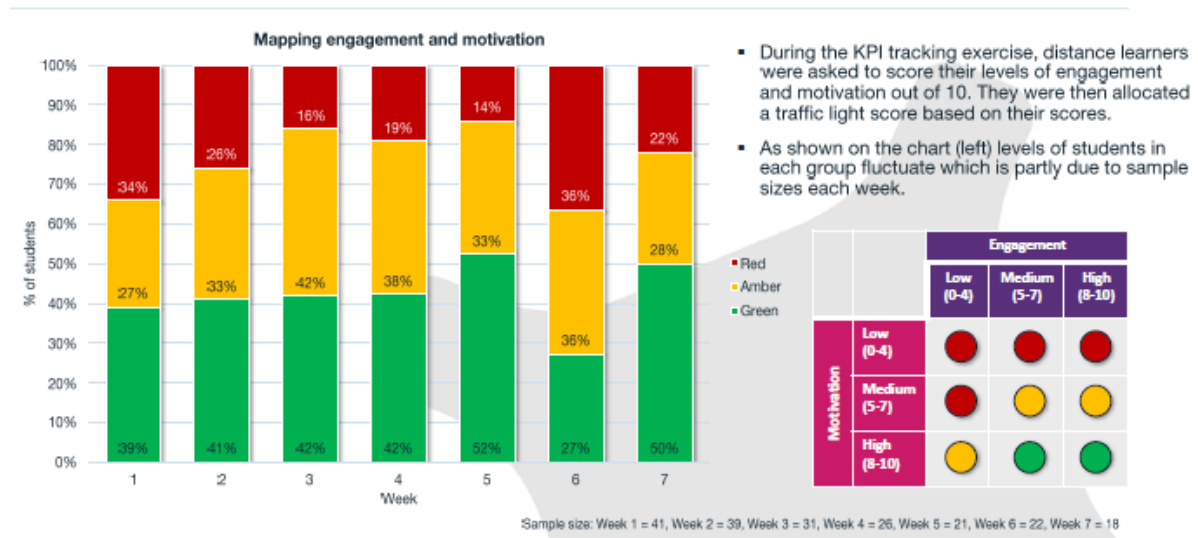

Figure 6 motivation and engagement: top bars (red), middle bars (amber), bottom bars (green)

The survey found no significant correlation between students' reports of their motivation and their actual engagement. Enagement increased over the course, but motivation stayed the same. Whilst the University might make interventions to increase engagement, or reduce frustration, many students reported, when interviewed, that they regarded motivation as something personal to them. This suggests that the academic and non-academic suport might focus on enabling motivated students to maintain their engagement. Offering tailored support at the right time, and access to a mentor or person, were most helpful. This lack of correlation may reflect the age profile of the students: as noted above (Freerkien, 2017), older students may be better able to separate motivation from other factors

4. Tracking engagement, motivation, community, satisfaction and net promoter scores over time; student profiles

The KPI tracking scores indicated a generally consistent and positve experience over the survey period. Satisfaction and net promoter score remained at an average of 7.5 out of ten.

Data tracking over time
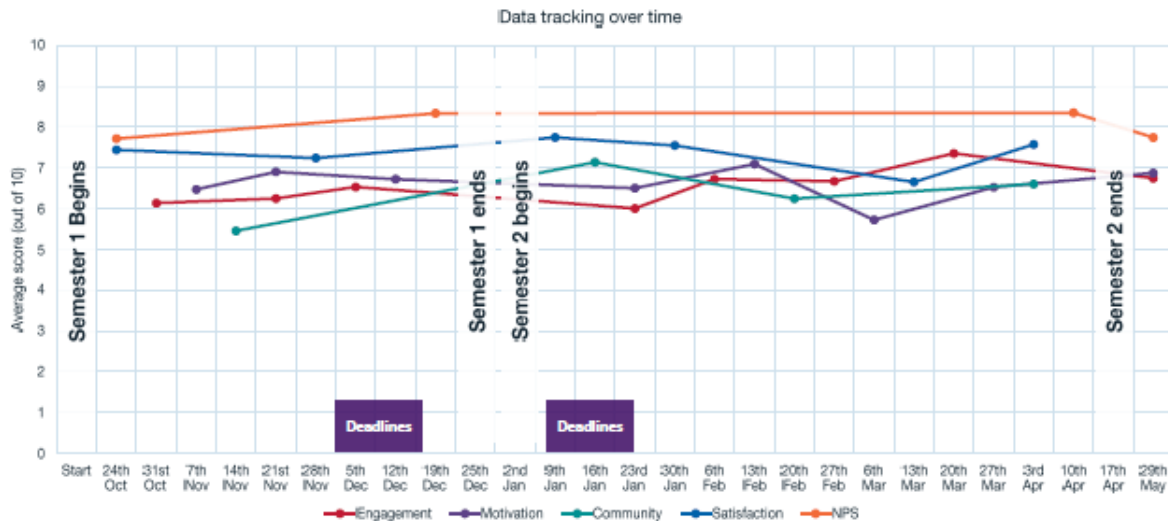
NOTE: This chart shows the time-series breakdown of the total sample for our weekly KPI text survey

32

Figure 7 KPI tracking over time

Finally, the data identified three student types based on their reported KPI scores. These are virtual, not real, profiles, and are built on student self-reports. These are not real students but have been created from the data.

	'My story'	'How to support me'
Student A: driven and engaged learners'	• I think my qualification will really benefit my career in the longer term. • I'm really enjoying my studies and the course has exceeded my expectations. • I've stayed motivated throughout. I know it will be worth it in the end.	• I don't need much help as I am really motivated to do well at the course. • Keep supporting me like you have been doing so far
Student B: motivated but distracted learners	• I've enjoyed my course but sometimes it's been hard to keep up. • At the start, I needed a bit more support, but now I'm in the swing of things. • overall, I've managed to keep myself motivated but sometimes I've needed help from others on my course	• I need most support during the start of my year to adapt to life as a distance learner. • Make sure that my course leaders are available to answer any questions
Student C: pressured and disengaged	• I'm doing a distance learning course to help get promoted at work. • Overall, I'm content with my distance learner experience but it has been sporadic - there are some good weeks and some bad weeks	• Ensure systems are working and up to date. • Make it easier for me to contact academic staff when I need help. • Course materials need to be more engaging • Be understanding when I have a lot of pressures on my time and fall a bit behind with my studies

Figure 7: student attitudinal and behavioural profiles as a guide to service design

So, behind the consistent KPIs, there are variations in data reflecting different student profiles and behaviours, leading to different potential service offerings.

5   Comments, context and reflections

Both studies engaged with students who studied only online. However, the experience of distance learning provision will be used to inform the classroom experiences to evolve genuinely blended offers. We can thus envisage a spectrum of encounters, with different degrees of onsite and offsite engagement, and different types of synchronous, asynchronous learning opportunites. These developments are facilitated by the University's broader technological strategies, for example lecture capture and the issue of students with Office 365 accounts to facilitate collaboration. The eruption of technology, from internet enabled whiteboards to mobile devices used by students in class means the 'lecture' is already technologically enabled and has been fundamentally, if not intentionally, changed by digitisation (Gourlay, 2012), with the lecturer's words recorded and open to challenge by the pervasiveness of digital media in the classroom. More digitisation necessarily is not necessarily a 'good thing' if unsupported by sound pedagogy and understanding of the many factors, learning and non-learning-related, affecting student engagement with it: Burch *et al* (2017, p120) describe a course which made web use compulsory but which received lower engagement scores from the same course where use of the web was not mandatory. There is thus a blurring of the largely artificial boundaries between digital and non-digital, or 'distance' and 'classroom'.

Furthermore the boundaries between market and non-market provision have been eroded. This influenced the decision to use market research as a specific technique to investigate the student experience. The buying process and the financial commitment are not just antecedents: a student's debt is a long term companion to their course and beyond it.Considering the student engagement as only being 'on the course' omits the underlying life narrative and existence of other identities. In England, the state still funds universities, but indirectly via the mechanism of student buying decision choice at point of purchase. Whether this market-mimickry approach, with the unintended consequence that a degree has taken on the appearance of a Veblen good, is applauded or deplored, the student in effect has been given a significant agency at the point of purchase and commitment. It is harder to exercise this agency once the buying decision has been made, but the 2014 and 2016 research showed work life balance issues, and money concerns, as factors in the student's mind. The focus on financial costs should not obscure the signficant if less visible opportunity costs of making the wrong choice or bad decision which is hard to reverse. The customer relationship, where the student purchases the benefit in advance, is a highly risky one for the student as a buyer, and the issues here are informational and ethical. Treating students as part customers is not disempowering academics or demeaning them, but stating in stark terms the real life risks students undertake in committing to study at this institution as opposed to another.

Issue	Note
The student is making a high-risk purchase	High opportunity cost of **time** if the student makes the wrong choice; failure means wasting a year, other opportunities not taken
There is high information asymmetry	Students cannot judge what the course will be like until they experience it
High financial asymmetry	A Masters programme priced at £4,500, paid out of post-tax income is a high % of average earnings: but it is not a lot to the University
There is high emotional asymmetry	When applying, a student submits him/herself to a judgment as to whether they can join a club
But many alternatives	experience and award are available elsewhere: student can choose

Figure 8: asymmetry in buying choices

The opportunity costs of time and the risks of having to live with poor decisions existed before marketisation. However, students exercise significant agency at the commencement of their studies.. An approach to student agency based on student expectations has been modelled by Dzubian *et al* (2015) by using the concept of the 'psychological contract'. This has been adapted from research into employment relations and is valuable as it reflects student expectations deriving from their role as

contracting partner. Psychological contracts were developed for employer and employee relations and, although students are not the University's employees, they do work under direction, their time is, to a degree, controlled, for fear of sanctions such as expulsion or extra work. However, gaps between expectations and delivery might be measured in KPIs of satisfaction. Expectations gaps may result from poor information, but may in fact reflect more fundamental discursive differences between student and non-student identities. Martin *et al* (2014) complain that care workers doing an online degree did not adopt the right 'student identity'; they blame the students and their work environment for their failure to behave as students should, particularly when the students voiced significant disquiet at being expected to do a group summative assessment by peer review on the grounds they felt it was not their job. It might have been better to surface the hegemonising university value system that devalued the students' low-status care work as pure compliance, and addressed the substantive issues raised by students' failure to engage. Likewise, Johanson (2014), but in a more sophisticated way, identifies two fundamental discursive clashes in the vocational training of Danish chefs, who saw themselves as 'trainee practitioner chefs' rather than 'students'. Clearly understanding the critiquing the discursive conflicts might lead to better engagement with students who cannot prioritise student over work indentities.

The construction of online learners as students who are judged on the performance of digital work in conforming with regulatory expectations is also shown in some approaches to student engagement. Unlike the positive and contractual self-reporting of emotion and engagement and motviation, digital information is easy to capture, for example the number of times a VLE is accessed. There is a natural tendency to view this as a proxy for engagement. The mass collection of data on student digital behaviours may be with wholly beneficial ends in view but, just as the psychological contract mimics employment relations, so the mass collection of data mimics the automatic collection of data by social media and digital giants and interpellates a student as a data generator for a measurement system rather than an learner with agency.

As Bocconi *et al* suggest, mobile and network technology offer a facilitation and 'tracking of the learning and teaching process' (2014, p525) so that the learning path can be designed that any 'activity that leaves digital traces that may be analysed asynchronously'. Similarly, Dixson defines engagement as putting 'energy, thought, effort and to some extent feelings, into their learning' (2015, p146), and maps two types of digital behaviour, 'observation' and 'application' then mapped to students' self reports of how engaged they felt, creating a proxy link between digital traces and student self-reports. However, students' reports of engagement may perhaps be stimulated by the request to report on it (Burch *et al* 2017 p 120) or, even worse, might be positively misleading if students do not understand the questions (Kahu, 2013)

This has two implications. One of these, as suggested by Gourlay (2015), is that engagement measures depending on digital traces 'may serve to underscore restrictive, culurally specific, and normative notions of what constitutes acceptable student practice' for the very simple reason that engagement is only 'legitimate' if it 'communicative, recordable, public, observable and communal' so that by implication 'listening, thinking, reading and writing or private study are assumed to be markers of passivity and not indicative of engagement' (2015, p403). In other words it is a digital performance of participation, and failure to perform can lead to disapproval or social sanctioning. The student's identity as a learner is thus being constructed by the needs of the measuring tool and the administrative apparatus that supports it. In other words, a student in effect is presented, modelled and controlled as a digital avatar, a creator of traces that conform to the regulatory and cultural regime of the institution. Underpinning to all this is the regulation of student behaviour to produce indicators of engagement, cognitive, behavioural and emotional, which may be based on a flawed model which assumes a *dominant* student identity, when we have seen this is not realistic for online students. One can envisage a possible future where a student can measure his or her own engagement on a sort of 'fitbit', a self policing and self regulating tool embodying the dominant discourse as to what a student should be, so that learning is an external performance not an internal transformation for life. As Zepke

suggests: 'performativity, the value of what can be produced, measured, recorded and reported becomes a technology of control' (2015, p702).

Finally, what appears to be absent in this interpellation of students as data generators is any appreciation of emotion and, perhaps, a humanistic perspective of learning as personal, agentive or transformative applied to learners. A humanistic perspective assumes people are not reducible ot components, have agency and intention, and seek and create meaning (Bugental, 1964). There seems a discursive gulf beween what is measured, data points, and the language of social science and a humanistic perception of the process of education in which learning might be a rite of passage, a narrative in a life story, or a process of personal transformation, in which social and intellectual opporutnity are somehow combined. As Bowers *et al* (2016) suggest, statistical regularities may not be always a good guide to what to do in counselling practice with particular individuals, who may deviate in significant ways, owing to life context and personality, from the norm. They directly negotiate what is, perhaps, a clash of discourses, from the value of data to the personal and experiential. For an individual student, learning is potentially transformative, and forms perhaps part of a life narrative. There is little sense in the studies of learning as a 'rite of passage'. Not only do a number of studies suggest the importance of emotion as a whole (Maguire *et al* 2017, Oriol *et al* 2017), but others delve deeper and show that the type of emotion is important: autonomous motivation generates better learning than controlled motivation whereby feelings of pride and guilt drive the desire to meet internalised social expectations (Cai *et al*, 2017). Failure can have real consequences, in which a hyper-competitive environment causes stress and mental illness (Posselt *et al*, 2016). Finally, Ghori (2016) suggests that established models understate 'the critical role that students can or cannot play in their own learning and satisfaction' (p5) and suggests that when students realise they are agentive and have a role to play, they are less dissatisfied (p231). The multidimensional models offered by both Kahu (2013) and Ghori (2016) offer a way forward in surfacing the student behind the data.

Conclusion

The above might seem a lengthy coda to the description of two studies into student behaviour that Leeds Beckett's Distance Learning Unit commissioned in 2014 and 2016. These were developed largely so we could improve our products and services to students as individuals, recognising them as agents with other things to do, for whom a decision to study is a daily one. The surveys were not designed with the current research debates in mind but do illustrate them. Given criticism of marketisation, or the expectation that students must enact performances of learning to satisfy the needs of data recording systems, we propose a perspective recognises their agency, individuality and roundedness, and respects their multiple identities, rather than insisting online students enact a single student identity. We thus recognised the importance of relationships as much as technology, paying attention to personal relationships that must exist behind the screen for online learning to be a shared experience, not just an ingestion of content. The ambivalent motivational role of 'community', not a stated priority but a driver of satisfaction, suggests that this cannot be ignored even if it is not strongly promoted. The development of profiles based on real students, as opposed to generalities, that recognises study as a material practice enacted in a daily set of choices between alternatives, supports the need for attention to emotion and relationship-building in driving engagement and satisfaction, and removes the taint of pure instrumentality of student decision making even in a marketised system.

Whilst the surveys were defined for marketing research, and are this limited by their purpose, they have proved to be very suggestive and have touched on many issues. The research did of course reply on verbal self-reports, and we do not know whether the research's status as 'market research', revealed at the beginning, might have affected student responses. However, being questioned 'as a customer' (as well as a 'student') could be set to support a critical view. However, can this line of enquiry be further developed? Already in this paper, it has been suggested that more work can be

done on negative and positive emotions in learning. So, an extension could be to review how 'academic' emotions relate to non-academic emotions. An approach based on life narratives could offer suggestive nuance about which questions about emotions to ask over time and in context. The evolution of student identities in online environments could also be explored, how online students integrate their student identities at work and in the home, and how they play back to themselves ideas of self-efficacy; whether digital performances of learning are correlated with deep learning; how presence can be developed and whether artificial intelligence could substitute for it; the differing motivating factors from the task itself to the imagined future states and the story of their futures students tell themselves; how learning plays a role in life narratives and self definition, and how it is remembered; how social-culutral approaches to learning, in which learning is conceived as a social and cultural process, can be applied to online environments. Indeed, there could be studies which are inspired by online learners and their multiple tools and material practices to explore ideas of extended cognition and the extended mind, which itself could segue into broader posthumanist concerns in the humanities.

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