**Academics as Changemakers: Addressing Challenges in HE Teaching Contexts**

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## **About this publication**

This publication presents six case studies developed by academic staff taking part in the Professional Recognition and Scholarship module (EDUM127) of the University of Northampton Post-Graduate Certificate in Academic Practice (PGCAP).

The module enables staff to build on their achievement of FHEA or SFHEA with deeper critical engagement with relevant literature for the award of Level 7 academic credit, towards achievement of the PGCAP. However, the module aimed to do more and to ensure a practice-based focus, both of personal relevance and aligned to university priorities and needs. The University of Northampton (UON) is a Changemaker Campus, and the module supported teaching and staff themselves to be Changemakers, within the classroom and online learning communities on their own courses and programmes. Participants adopted a Changemaker lens to identify problems impacting the student experience and achievement on their courses and from this exploration, six case studies are shared which explore strategies which can be used to address challenges faced by a variety of student groups.

The case studies actually challenge us to take a fresh view of our provision:

1. the activities we use (Case study 2)
2. the strategies we use to motivate learners (Case study 5)
3. the provision we make for students to audit their skills and exercise choice in selecting activities that meet their needs and provide an appropriate level of challenge (Case studies 1 and 4)
4. the assumptions we make and the impact that such assumptions have on learners and their own self-perceptions and self-efficacy (Case studies 3 and 6).

Drawing inspiration from the UON Changemaker Hub, a blend of academic and design-thinking strategies invited participants to explore their own and their students’ perspectives on their identified issue, and to support each other to develop ideas for practical interventions they could try out to tackle the challenges experienced. Collaboration through direct observation by peers, reflection in the light of literature, and working as supportive communities through ‘reading circles’ supported shared learning and recommendations for the future.

The challenges these staff chose to address are not theirs alone. We are confident that you will recognise within these case studies problems that you too grapple with within your own courses and learning and teaching communities.

We invite you to explore the case studies within this publication (<https://www.northampton.ac.uk/ilt/research-and-funding/publications/>), providing summaries of the course-based problems faced and challenges addressed, the strategies adopted, and the recommendations emerging.

Shirley Bennett

Head of Academic Practice

### Case study 1: Addressing diverse student needs through student self-evaluation and differentiated activities: an example from academic skills workshops

#### Sam Thomas, Learning Development Tutor, LLS, UON

# **Introduction**

The establishment and continued success of learning development departments across UK universities is a good example of the ways in which higher education is adapting to the constantly changing context. As an increasing number of students enter higher education with a diverse range of prior experience, qualifications and circumstances, universities ensure that their needs are met through various means. A core strand of the University of Northampton’s Strategic Plan is being ‘super supportive’ (University of Northampton, 2018) and the Learning Development team, as part of Library and Learning Services, is one of the support services offered to students as an effective way of addressing some of their needs in a super supportive way.

A central challenge for learning development tutors is to ensure that group teaching sessions are of benefit to all students. My experience of delivering led me to conclude that 'one size fits all' workshops rarely meet the need of all students: some don’t receive enough support, some are already confident with the content and concepts and therefore disengage from the session, while others would benefit from support with developing a completely different skill from those on offer during the workshop. This issue is increasingly evident as student cohorts become more varied in their backgrounds, previous educational experiences and the range of competing priorities in their lives. Using pedagogical methods of differentiation to structure these sessions, based on students’ own evaluation of their needs, would enable greater targeting of support and therefore enable more students to engage with and benefit from the sessions.

# **Context**

This problem is of course pertinent across all education, but is a particularly challenging issue for those working in Learning Development. At the University of Northampton tutors are employed to support and develop the academic skills of students using a variety of methods, including one-to-one tutorials, group workshops and through online guidance (University of Northampton Library and Learning Services, 2020). Students can choose to attend tutorials as and when they need them in addition to group workshops which are usually embedded into module and programme timetables as part of the university Integrated Learning Support programme which ensures that most students will see a Learning Development Tutor for at least one session each academic year (ILT, 2019). This means that students across the University benefit from the expertise, and as independent learners they can control how much they engage with the service.

The problem explored here relates to embedded workshops: we make every effort to design sessions that enable students to develop skills that are relevant for their study and assessments as a group, but as they are usually one-off, standalone sessions, how can we ensure that all students will benefit from what we offer? The problems with this are twofold; not only are we unfamiliar with the students and their individual needs, but we also have to structure the learning and teaching in a way that meets the needs of all the students in one standalone session. If we are to ensure that each participant is able to take something of value from the workshop, then some form of differentiation is required.

# **Literature review**

This literature review will consider the application of pedagogical approaches to differentiation in higher education generally, and by learning development professionals in particular, noting the reasons that it has not been more widely adopted by these specialists. It will then explore the literature supporting the use of different methods of self-evaluation, the concept of student efficacy, and ideas about student choice in learning, all of which are central to the successful implementation of the teaching intervention.

## ***Differentiation: theories and approaches***

Differentiation as a concept in teaching has been discussed for more than twenty years. It originates from empirical evidence that individuals have different needs and preferences which should be acknowledged when planning teaching, to enable all to reach their full potential (Tomlinson *et al*., 2003; Bondie *et al*., 2019; Munro, 2012). As an early proponent of the method, Tomlinson describes her experience in the classroom thus:

“I was routinely teaching classes that had such diversity in them that I realized that if I just did one thing for all the students in the same way and at the same time, I was missing nearly everybody” (Wu, 2013, p.127).

Rather than relying on streaming or grouping of similar ability children, Tomlinson *et al.* (2003) sought to implement a system which “does not seek to label and segregate students, but rather to serve them effectively in heterogeneous classrooms that are responsive to their varied needs” (Wu, 2013, p. 127). A focus on the individual needs of students rather than the needs of the teacher or the classroom setting has roots in a number of pedagogical approaches, an understanding of which can help contextualise its effectiveness.

The most obvious theoretical link is with the work of Benjamin Bloom, whose work on taxonomies of learning helps not only to differentiate between different types of learning (cognitive, affective and psychomotor) but also gives a framework with which to differentiate within teaching, and to evaluate achievement (Aubrey and Riley, 2019). In addition, it could be argued that Vygotsky’s theory of learning through social activity has at its core ideas about differentiation; the teacher’s instruction and scaffolding should be adapted to the needs of the child, and therefore support their development in a way that is personal to them (Daniels, 2016; Aubrey and Riley, 2019).

Research has shown the positive benefits of differentiation in the classroom. It can increase student motivation and academic achievement for all students regardless of academic ability or additional needs (Huebner, 2010). Konstantinou-Katzi *et al*. (2013) agree that there are benefits to motivation, and in addition identify improved engagement of students in their study. Although much of the literature identifies positive attributes associated with differentiation, it is not easy to measure definitive outcomes from differentiated teaching, which means that much of the literature is focussed on the holistic benefits of student-led teaching and learning and the development of inclusive classrooms (Bondie *et al*., 2019).

The concept of differentiation can encompass many aspects of education, however it focusses particularly on addressing the barriers that students face in achieving their fullest potential. A core motivation is to cater for the ‘academically diverse student population’, whereby students in one classroom can also represent a high variety of races, cultures, first languages and special educational needs (Tomlinson *et al*., 2003). Alongside individual differences, institutionally entrenched bias that discriminates at gender, socio-economic or social class level can either drive or negate the effectiveness of differentiation (Berggren, 2008; Taylor, 2017). Acknowledging and planning to address the diverse range of internal and external factors that impact on how individual students learn is a complex task that poses a number of problems for teachers, for example in planning for and managing a range of needs in the classroom.

## ***Differentiation and Higher Education***

Despite being a well-established approach that is widely used in schools, differentiation has had less impact on higher education, despite the increasing diversification of student qualifications on entry, backgrounds and educational experiences, due in part to widening participation initiatives (HESA, 2019). The literature and recent research into differentiation identifies potential benefits of various methods of implementation, some drawbacks and negative implications, and indicates the potential for integrating this approach into a more inclusive teaching strategy at HE level.

Research into differentiation in higher education has explored both what it means at this level, and how it can be implemented. Santangelo and Tomlinson (2009) found that differentiation was appropriate to accommodate three different facets of student need: diverse learning preferences, a variety of interests and experiences, and differing personal responsibilities and circumstances. Valiandes *et al.* (2018) argue that as well as acknowledging this diversity of need, the preservation of collective identities through the concept of intercultural education should also be addressed. This means that not only are the individual needs of students understood and accommodated, but also that collective identities are supported, using a culturally responsive pedagogy (CRP) (Valiandes *et al*., 2018). Combining approaches that use the diversity of the classroom as a key element of the pedagogy could be productive. Acknowledging that both the practitioner and the learner operate in a complex environment in which multiple factors have an impact on the ability to learn is an important factor in evaluating differentiation, both in terms of its inherent value, and the impact it has on learning.

There are criticisms and drawbacks to differentiation noted in the literature. Jackson and Evans (2017) suggest that there is an ethical issue in providing variant levels of instruction to students who have all paid for the ‘same’ educational experience; they also acknowledge that it is time-consuming and requires more input that traditional methods. This difficultly in implementation is also highlighted by Ashman (2015), who discusses the lack of evidence for the efficacy of differentiation in research studies. He concludes however by arguing for a pragmatic “differentiation-lite” approach, thereby accepting that some adaptation for the needs of students is required to maximise student learning.

Finally, the problematic concept of learning styles had been subsumed into discussion about differentiation (Tomlinson, 2010), but recent research has started to identify the effective elements of differentiation which are distinct from the learning styles approach. The shared concern about the format of teaching materials is the link between the two concepts, however the research makes clear that teachers should “resist the temptation to match instructional methods with students’ preferred modalities” (Rock *et al.*, cited in Landrum and McDuffie, 2010, p.15): the concept of learning styles can do little to improve learning if other complexities around content and student experience are ignored. In addition, Cuevas’ study of the research in learning styles concluded that there is no real evidence to support the theory, and that rather than concentrating on the format of materials, teachers should “treat each student as a unique individual without pigeonholing them into unfounded categories” (2015, p. 330). Differentiation methods seek to avoid categorising students, instead focussing on the individual rather than the proposed solution.

## ***Learning Development: one size fits all?***

Learning Development departments within UK universities are now a well established strategy to provide all students with support for developing their study and academic skills in a student-centred way (Hill and Tinker, 2013; ALDinHE, 2019). This approach has proved successful at the University of Northampton, with a well-established team providing support to students through a range of services, including embedded workshops provided as part of the Integrated Learner Support approach introduced in 2018 (ILT, 2019). Embedding academic skills workshops into modules and programmes has been an ongoing ambition for many learning developers as there is plenty of evidence that standalone, one-off skills workshops have little impact and are not well attended by students (McWilliams and Allan, 2014). Arguments were made by earlier practitioners for a generic approach, including cost-effectiveness and the ability to generalise skills (McWilliams and Allan, 2014). The day-to-day pressures of teaching multiple sessions across many subject areas and the ability to easily re-use content have led to many learning development workshops being ‘one size fits all’, with little consideration for differentiation, even though they may be adapted for discipline or level (Hill and Tinkler, 2013). However, recommendations for a best practice approach to embedding academic skills into mainstream subject teaching include maintaining a student-centred focus, and using a variety of approaches depending on need (McWilliams and Allan, 2014), both of which are key drivers for using differentiation methods when teaching.

There are some examples of differentiation being used in a learning development context and an increasing recognition of its importance in this context. A recent symposium held by ALDinHE and Sigma Network highlighted some of the ways in which learning development tutors teaching both academic skills, and mathematics and statistics, were employing theories and methods of differentiation in their teaching, including differentiation of task, level and outcome, as well as learning support needs (Dettmer, 2019a; Petty, 2009). Examples include the use of different types of resources and scaffolding methods, and assessing student needs at the start of sessions. Some barriers to differentiation in this context include the lack of confidence of tutors to try new methods in one-shot teaching sessions, as well as not having the knowledge or experience of techniques that could be used to differentiate in these settings. Increasing tutors’ knowledge and understanding of differentiation techniques, for example the setting of open tasks, could increase their openness to trying new methods with students (Dettmer, 2019b).

## ***Student self-evaluation and the ‘Philosophy of choice’***

The process of identifying the opportunities for differentiation with students in higher education should involve the students themselves. The literature suggests that there is a positive learning gain from student self-analysis (Anthony and Garner, 2016) and this, coupled with the evidence underlying how students develop self-efficacy in writing by assessing their own skills (Pajares, 2003; Nielsen, 2019) suggests that self-evaluation would be an effective method of starting the process of differentiation in the workshop setting. In addition, there is literature to support the idea that in developing self-efficacy and independent study skills, students should have some element of control, or choice, over activities that form part of their studies (Lewis and Hayward, 2003). This therefore supports the idea that students not only self-evaluate as part of the learning process, but also choose which activities are appropriate to develop their own learning.

It can be seen therefore that research into differentiation in higher education is continuing: research already shows that it can be an effective strategy for engaging a diverse cohort of students with different needs experiences and expectations. One of the key issues is to identify what constitutes effective differentiation in the higher education context. Experimenting with tools and techniques to implement differentiation, whilst being mindful of intercultural education and CRP, could directly address the wide variation in needs of our students and provide the beginnings of a framework to support further research in this area.

# **The intervention**

Based on the literature, the intervention was designed to explore whether it is possible to address the differing needs of students in developing specific academic skills, and sought to find out more about how a method of providing multiple concurrent activities addressing a range of skill areas could be effectively facilitated and managed.

I chose to work with a group of students who were nearing the submission date of their first assignment for a first year business module. The cohort included students with a variety of prior qualifications, experiences, including a number of overseas students, and as such was a good example of the mixed nature of many groups that we teach. I expected students to already have a good understanding of the requirements of the assignment, but that they would need support with skills associated with completing the final assignment, including editing, proofreading and referencing, for example. As this is a large cohort there are five separate tutorial groups, which gave me the opportunity to repeat the sessions with different groups of students. In addition, a colleague delivered one of the workshops, so she was able to give me feedback about her experience of delivering this teaching intervention.

To facilitate the workshop (see Figure 1), I planned to ask students to complete a self-evaluation which identified which areas they were less confident in, and therefore which skills they needed to work on. This approach ties in with the literature on developing student self-efficacy through self-evaluation, and the learning gain from completing self-analyses (Pajares, 2003; Nielsen, 2019; Anthony and Garner, 2016). Based on the results of this evaluation, students were to then prioritise which activities to complete in the workshop, and then re-evaluate their confidence rating, enabling an element of choice in their learning (Anthony and Garner, 2016, Petty, [n.d.]). Students had a range of timed activities to choose from during the workshop, each of which was designed to support them with a particular academic skill, and it was anticipated that they would have time to complete two or three activities. Repeating the self-evaluation at the end of the session, was intended to assess whether confidence had improved, particularly in those skills areas that students had completed activities about. This could then feed into an action plan to complete activities after the session. The full session plan for the workshop, including links to resources, can be found in Appendix 1.

Figure 1: Structure of planned intervention

## ***Self-evaluation***

Student self-evaluation of skills was chosen as a way of enabling students to select relevant activities to complete during the workshop. Research has shown that people are not generally very good at accurately assessing their skills or knowledge, and often over-rate themselves on areas in which they have very little knowledge (Dunlosky and Rawson, 2012). However, using a self-evaluation is nevertheless a good way of reinforcing expectations for students, and encourages students to critically assess what they have done and what they have left to do. As discussed earlier, despite the inaccuracy of student evaluation, it can have a positive impact on students’ sense of control and choice over their learning, as well as actual learning gains (Anthony and Garner, 2016). It can also provide a baseline for assessing if the activities have had any impact on student development of skills by the end of the session.

Having explained the concept of the session, and the aims, students were asked to complete an online version of the self-evaluation (Appendix 2). There are five main topics covered by the self-evaluation, with two statements about each. Students rated either their confidence in the skill, or their progress in achieving the relevant learning outcome, using a Likert scale ranking from one to five, where one shows strong disagreement, and five indicates strong agreement with the statement. An online version of the self-assessment, using the Test option in NILE, was completed by students at the beginning of the session. The scores for each skill area were then automatically calculated by the system. By adding the scores together for each topic, they could identify which skills they had scored the lowest, and therefore which corresponding activities they should complete. I felt it was important for students to feel comfortable and not judged or assessed in any way, so I made it clear to them that I would not be viewing the results of the self-evaluations or using them in any way, and for this activity the numbers were solely for them to make a choice of activity.

## ***Differentiated activities***

Much of the literature on differentiation discusses the wider context in which students ‘differ’ and therefore need differing types or levels of support (Berggren, 2008; Taylor, 2017; Tomlinson *et al*., 2003). In this intervention I deliberately chose to focus on only differentiating the content of the learning in the workshop to ensure that students could find something of value to them in the session, using theories and methods such as setting open tasks outlined by Petty in his ‘differentiation mindmap’ (Figure 2). The tasks were time-bound, and the outcomes not assessed, so the main focus of differentiation was the content of the tasks, which are those outlined in bold in the mindmap.

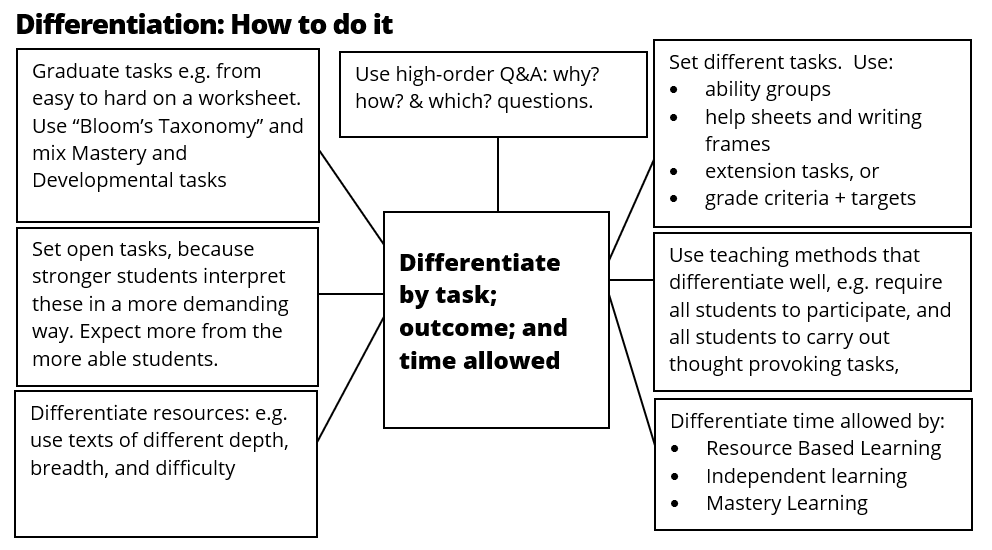


Figure 2: Extract from Differentiation mindmap (Petty, [n.d.])

Having identified the first activity, students would then move to the relevant ‘station’ (or table) in the classroom to find instructions and resources for that activity. They would then have around ten minutes to complete the activity, obtaining and giving support to others completing the same activity. There is evidence to suggest that working with or alongside peers as described by Vygotsky in his theories about scaffolding and the Zone of Proximal Development (ZPD) can be beneficial to students in the absence of direct teacher input, and that they would be able to co-construct meaning and answers by working together (Daniels, 2016).

The benefit of using this format is that students can practice independent learning in a supportive space, and are able to call on the knowledge and expertise of peers and tutors as and when they need it. Differentiating activities in this way enables students to focus on developing their knowledge and confidence in a skill that is relevant for them at that time.

Repeating the self-evaluation at the end of the session enables students (and potentially tutors) to assess what progress they have made, and identify areas for future development. This approach fits with a truly embedded approach to developing academic skills, whereby students are in control of their own learning, and have clearly signposted further opportunities to develop these skills as and when required.

## **Peer observation**

Before the session, areas for observation were agreed between me and my observer: I wanted feedback on how effective my facilitation of the session was, and how effective the activities were in meeting the needs of the students, and my observer was interested in observing the logistics of managing concurrent activities, and how students engaged with the activities.

The session was run five times, for five different groups all studying the same module (the module is taught in this way to accommodate the number of students). The number of students present in each session varied between 4 and 11, with a total of 34 taking part from a total cohort of 105. The peer observation was arranged for the final session, which unfortunately had the smallest group of 4 students, and this low number had a substantial impact on the workshop. The workshop started as planned, albeit late as students were not on time. The explanation of the format worked well, and students were able to complete the self-evaluation effectively as I modelled the process, something I introduced after students in previous sessions had difficulty completing it without specific guidance. In this modelling, I showed each step of the process, making sure that students were following along on their own devices to complete the self-evaluation at the same time, which allowed them to assimilate the knowledge at a gradual pace (Hattie and Yates, 2013, p.73).

Issues also arose with my plan when it came to students completing the activities. Two of the students were fairly confident in their skills, and they chose to work on two different activities, as suggested by the results from their self-evaluations. They used the resources and I checked they understood the guidance, and they then worked independently in silence. The other two students were less confident and needed more support to start the activities. I had to give more directed support to enable them to understand the requirements of the activities, particularly as one had not been present at the beginning of the session. Immediately my plans for peer group support were not possible because of the small size of the group, and it was impossible to generate the usual ‘buzz’ of a workshop where students are working against the clock and then moving around the room to their next activity.

# **Evaluation**

As there were repeated sessions I had the opportunity to test the intervention with a range of student groups, and also get feedback from a colleague who also facilitated one of the sessions. This meant that by the time I came to teach the final, peer observed session, I was fairly confident with the mechanics of the session and was able to make adaptations were necessary. There were two groups of eleven students (including that delivered by my colleague) and these two groups were definitely the most successful in terms of student engagement and apparent learning. This number of students was enough to get conversations going at each activity ‘station’ and enable peer support to occur.

In terms of the peer observation, it was hard to evaluate the success of the session based on this workshop as it didn’t accurately represent what I was trying to achieve. However, I will use the feedback I received to revisit the content and guidance for the activities, as student engagement in the observed class seemed to depend on my being available to explain the activities – making the instructions clearer may positively impact on students’ ability to self-direct themselves in completing the activities. Bondie *et al*. (2019) discuss at length the contested definition of differentiation, and the resulting variety in activities that are found in the classroom. Their suggestion of using the CARR model to reflect on and evaluate activities seems to be appropriate when considering the feedback from my peer observer and the student difficulties in the classroom (Figure 3). In addition, some of the activities were very similar in format, and student engagement could also be improved by varying the types and levels of activities available.

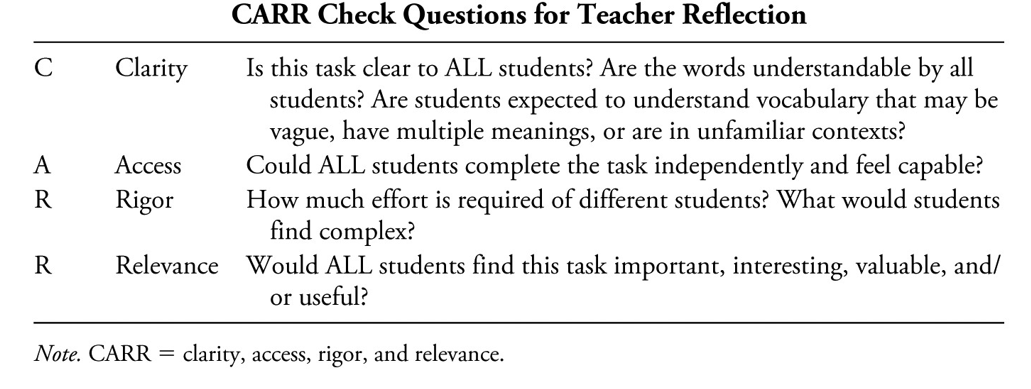


Figure 3: CARR model for reflecting on instructions for activities (Bondie et al., 2019)

Finally, my feedback included a reflection that Learning Development tutors “are sometimes at the mercy of the class tutor and how they choose to run their classrooms”. This really speaks to the heart of some of the issues we face in running one off, academic skills sessions. We have little knowledge of, or context about the students we are teaching, and this lack of knowledge impacts hugely on how effective our sessions can be. I have already noted the low attendance numbers for these sessions, the late arrivals (up to one hour late) and the difficulty some students had in engaging with the content. This lack of engagement can be explained by the fact that students had an assignment due for a different module in their programme on the same day of the observed workshop, making this workshop a low priority for many of them. Timing is of utmost importance when scheduling these academic skills sessions, as it can make a large difference to engagement, as demonstrated here.

# **Recommendations**

The format of the sessions offered students the opportunity to focus on their specific needs, and as such is a method that I will use again in further sessions. Additionally, the use of self-evaluation is valuable for students to understand the expectations about their work, and take initiative in identifying what they need to prioritise. However, the sessions were not completely successful for a number of reasons; building on these I propose the following recommendations:

***Student numbers***

The minimum number of students taking part in the workshop is important. Too few students and there is little in the way of peer support and discussion, too many and the facilitation of multiple activities would be difficult. The findings of this intervention would suggest that between 10-20 students is a manageable number. This calls for flexibility on the part of the tutor: if fewer students are expected to attend then differentiation has to occur using a format that does not benefit from peer support and interaction to the extent of this intervention.

***Scaffolding activities***

Instructions for activities need to be explicit and easy to follow. Some students struggled as there was a lack of direct instruction, or scaffolding, in the activities provided. Should I repeat the workshop I would improve the activities to make the guidance much more explicit, and reflect on these before and during implementation using the CARR model (Bondie *et al.*, 2019). In addition, modelling the process of completing the self-evaluation for the whole group had a beneficial effect and significantly speeded up the process for students who had not experienced the NILE test function before.

***Be prepared for all scenarios***

No assumptions should be made about how much of the assignment students have completed before the session. I was surprised that despite being due in 3 or 4 days, some of the students had not started the assignment, and very few had got to the editing stage. Many of these students had assignments due the day before this assignment, or even on the day of the workshop, and so, understandably were more concerned with completing and submitting these. This meant that some of the activities I had planned were not relevant for them, focussed as they were on editing and proofreading skills. Providing open tasks which allow for students to enter at whatever stage they are at would be one way of addressing this issue.

***Effective liaison with colleagues***

I was unaware of the students’ conflicting timescales, and this had an impact on the effectiveness of the support we offered them. Working more closely with subject academics would enable us to have a better understanding of the context in which students are working, as well as any particular needs that should be accommodated in the design of workshop activities.

In conclusion, I think the literature shows that there are considerable benefits from using differentiation in the classroom, and this should also apply to learning development skills workshops. I would consider repeating this method of differentiating in class by task, however I would carefully structure the instructions given to students, potentially using more online resources such as video for example to model the activity, and seeking more information from the subject tutor about the specific needs of the students in the cohort. This session structure could be adapted to include levels of achievement or outcome by setting open tasks, and this would also make additional allowances to include students who had not completed as much work as others, for example. In addition, I would like to build on this work to incorporate further consideration of the external factors that impact on students’ requirements in teaching and learning, such as diversity in interests, experiences and background. I will continue to explore how we, as learning development tutors, can balance the prevailing ethos to enculturate students to the University as an institution, with a need to respond to student diversity which embraces that difference as a driver in developing more inclusive, appropriate teaching methods.

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# **Appendix 1: Workshop lesson plan**

|  |  |  |
| --- | --- | --- |
| **Title: Academic skills plan** | | |
| **Date**: December 2019 | **Duration**: 1 hour | |
| **Tutor:** | **Group**: Business level 4 students (5 groups) | |
| **Aims**:   * To ensure students have met criteria in assignment brief, assignment due December 2019 | | |
| **Learning Outcomes addressed:**   1. Effectively communicate information in a structured and appropriate written format that demonstrates an awareness of the purpose, topic, context. | | |
| **Equipment Required**: Self-evaluation on NILE module site, laminated instruction cards, access to Padlet for students.  Activity sheets and feedback form on my Onedrive site (link removed) | | |
| **Considerations:** | | |
| **Classroom Layout**: workshop | | |
| **Activities:** | | |
| **Activity: resources required** | **Timing** | **Outcomes – students will have…** |
| Students to complete the self-evaluation on their NILE site at  (STD site, module activities, Term 1 Powerpoint and Calendar folder, it’s at the bottom of the page.)  There are 10 questions in the self-evaluation (same as those on the feedback form). They will get a score out of 10 for each question, so if they add together the 2 scores for each area, whichever has the lowest score should be the activity they start with. | 10 mins | Evaluated their own skills in the relevant areas  Identified which activities (prioritise 2 or 3) to complete during the workshop |
| Set out laminated cards on separate tables. Hand out feedback forms. Ask students to find the first activity they need to do.  Each activity should take around 15 minutes, so start timing the first activity. I think they should be able to do 2 activities in the time. Support students as required.  Activity resources for info (links to Padlet pages removed):  Evaluating sources:  Using sources:  Referencing activity:  Paragraphs and sentence structure activity: Academic language activity: | 20 mins | Completed the first activity |
| Ask students to note on the feedback form which activity they completed. Move students onto the second activity and start timer. Support students as required. | 20 mins | Completed the second activity |
| Ask students to note on the feedback form the second activity they completed. Ask them to complete the whole feedback form (they don’t need to remember or refer to their scores from the online self-evaluation). | 5 mins | Reflected on their learning, and assess if their skills have changed. |
| Collect feedback forms. Thank students and ask if any questions, remind them of Learning Development services. |  | Opportunity to have specific questions answered. |

**Appendix 2: Self-evaluation questions**

| **Academic skill area** | **Rating 1-5**  **1= strongly disagree**  **5= strongly agree** | **Score (add together scores a and b for each skill)** |
| --- | --- | --- |
| 1. **Evaluating sources – this activity was helpful** |  |  |
| 1a. I have used at least five academic sources |  |  |
| 1b. I am confident that the sources I have used are appropriate and relevant |  |
| 1. **Using sources – this activity was helpful** |  |  |
| 2a. I have provided citations as evidence for all statements of fact, theories and research |  |  |
| 2b. I have used source information in a variety of ways, for example by quoting, summarising or paraphrasing |  |
| 1. **Referencing - this activity was helpful** |  |  |
| 3a. I have checked the in-text citations and reference list using the University of Northampton Harvard Guide |  |  |
| 3b. I have been able to find an appropriate referencing format for all of my references |  |
| 1. **Structure - this activity was helpful** |  |  |
| 4a. I have clear paragraphs that only cover one topic or idea |  |  |
| 4b. I have included citations in each paragraph except the conclusion |  |
| 1. **Academic language - this activity was helpful** |  |  |
| 5a. I am confident that my language is formal and clear |  |  |
| 5b. I have proof read my assignment and there are no spelling or grammar mistakes |  |

# Case study 2: Against the odds? A case study using technology, small-group activity and personal responsibility to promote engagement and participation of Level 7 students in a large Faculty-wide evening module

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# **Statement of problem**

Employability is at the heart of what we do at the University of Northampton (UON) and is one of the five core values of being a Changemaker campus (UON, 2019b). Within the Faculty of Business and Law (FBL), academic and support services staff are responsible for designing and actively encouraging learners to participate in a host of Changemaking activities that will enhance their future career prospects and create real impact within Business and Enterprise, one of the four key Changemaking areas (UON, 2019b).

However, engagement in these activities is poor, particularly regarding postgraduate employability workshops. This case study centres on a Level 7 cross-programme employability module called Career Futures: Employability Skills (HRMM072), which is a pre-requisite for students to proceed onto their programmes’ placement pathway. Despite the direct alignment between the activities, assessment success and future career prospects (Harper and Quaye, 2015), engagement with class-based activities is low, impacting progression onto the placement year and potentially career prospects.

This study will explore one strategy used to overcome barriers to student engagement within a diverse large-size, non credit-bearing cross-faculty module.

# **Context**

HRMM072 is designed following an active blended learning (ABL) structure with pre and post-session activities online, and workshops that are activity-based, not lecture-based, using experiential learning to develop and embed knowledge. The module has zero-credits because of the optional nature of the placement pathways and because students cannot accrue additional credits. The module combines 12 hours of face-to-face on-campus workshops with 8 hours of online e-tivities.

A sudden increase in the popularity of UON’s placement pathways, together with resource and timetabling challenges, meant workshops running from 6pm to 9pm during the 2019/20 academic year. There were 349 students in the Autumn cohort taking the module, split into four teaching groups of circa 90 students each. Team-teaching took place over four evenings a week for four weeks and with 95% of the 2019 Autumn cohort being international students, there was considerable programme, academic, cultural and language diversity.

Assessment is via an individual portfolio in which students must demonstrate meaningful engagement with a range of tasks, activities and events designed to support them in their efforts to secure a suitable placement role. Many of the activities were designed into the face-to-face workshops, with others being outside the classroom during daytime hours, involving for example, Employer Mock Interview days, the Placement Fair and Employability Week activities arranged by the Changemaker Team.

However, despite the module design providing students with all the resources and activities needed to achieve a Pass, engagement in workshops was poor: in the first session, some students did not remove their rucksacks/coats or take any notes, while some students simply signed the register and left. By the third session it still took considerable prompting to get any response to the straightforward opening request, “Raise your hand if you use the internet.”

This case study aims to investigate one strategy used to address poor engagement with HRMM072, examining existing, relevant literature, designing and implementing an intervention that was peer-observed, and then critically evaluating the emerging implications for both my own and colleagues’ future professional practice.

# **Analysis of the problem**

## ***Defining student engagement***

Specifically connected with both the time and effort spent on “educationally purposeful activities” (Kuh et al., 2007, p.44), the term ‘student engagement’ has evolved to mean the level of participation and interest students show in their learning, and how active they are in their modules and classes (Axelson and Flick, 2010). Furthermore, a direct correlation has been claimed between students who engage more with these ‘purposeful activities’ and grades achieved (Harper and Quaye, 2015), with Gibbs (2010) maintaining that engagement is a predictor of education attainment.

However, research indicates there is institutional responsibility to provide a suitable environment to encourage learning rather than expecting students to engage themselves (Axelson and Flick, 2010, p.42; Harper and Quaye, 2015, p5). Some researchers link levels of engagement directly with the quality of the institution (Kuh, 2001), arguing that engagement is a two-way relationship. Although the concepts of surface and deep engagement, and the connection between engagement and learning, are beyond the scope of this study, the definition of engagement adopted here is that of Axelson and Flick (2010).

## ***Class size***

As observed by Maringe and Sing (2014) there is no universally-agreed definition of what constitutes a ‘large class’, although researchers have tended to focus on classes of 100+ students. Large classes are still an integral part of the Higher Education (HE) ‘picture’ with, for example, the United States still having lecture theatre capacity that exceed 450 students (DeRogatis et al., 2014). However, according to Maringe and Sing (2014), despite the wide body of literature that exists on teaching large classes, there is a lack of literature that explores the challenges of teaching large, international classes.

Challenges of teaching large numbers in a single session include ensuring equity and quality, along with inclusion and comprehension (Maringe and Sing, 2014), and there is evidence to suggest that although no ‘optimum’ class size in universities is recognised, diminishing returns can be experienced as class sizes increase (Cuseo, 2004, cited in Maringe and Sing, 2014). Research shows that large class teaching is changing as HE moves towards active learning and adding value to the learning experience (Maringe and Sing, 2014). Furthermore, large class teaching is increasing within the UK HE sector (Saunders and Hutt, 2014) and while large classes do have benefits, they are most often a necessity of resource-constraints rather than by design (Saunders and Hutt, 2014). This is the case with HRMM072 which has class sizes of 90 students. Even though the quality of teaching materials is high, it is likely that class size contributes significantly to poor engagement with class-based activities: equality of opportunity, comprehension and inclusion are challenging to achieve with these numbers, despite the presence of three tutors.

## ***The internationalisation of HE and student expectations***

Increased student mobility within HE has led to growing internationalisation of student cohorts (Maringe and Sing, 2014) with the UK being the second most popular destination for HE students (Lomer and Anthony-Okeke, 2019). In 2018-19, UON welcomed 690 overseas students, representing 6% of the total number of the institution’s taught students (Fawcett, 2019). According to Lomer and Anthony-Okeke (2019) there seems to be a conflict within HE between the benefits of attracting international students and the perception that they lack academic skills and suitable engagement, for example with Chinese students being associated with surface learning and learning by rote (Clark and Gieve, 2006, cited in Lomer and Anthony-Okeke, 2019).

However, many criticisms levelled at international students are equally applicable to many home students (Jones, 2017, cited in Lomer and Anthony-Okeke, 2019) although HRMM072 has minimal numbers of home students and the experience so far indicates that many international students do not have sufficiently-advanced English language skills to enable them to perform well at Level 7. Therefore, trying to instigate either peer-to-peer or peer-to-tutor interaction is challenging, as is designing teaching materials/activities to accommodate the diversity in the group, something commonly reported in the literature (Kinsella, et al., 2017).

For some universities, the lecture remains the epitome of scholarly prestige and students applying to university often expect limited participation while verbal essays are delivered (DeRogatis et al., 2014). This style of delivery has the benefit of transferring information to large numbers, thus utilising scholarly time efficiently and, it has been claimed by some, maintaining the status of that institution (DeRogatis et al., 2014). Furthermore, recent research suggests that international students particularly see large-class face-to-face lectures as key to the HE experience, perceiving other modes of activity, such as group work, Massive Open Online Courses (MOOCs), virtual classrooms, podcasts and voice-over slides as only supplemental to the traditional lecture-style of delivery (Saunders and Hutt, 2014). In contrast to such expectations, some Universities have adopted a more active blend of learning opportunities and experiences, replacing the traditional lecture-style presentation by an Active Blended Learning approach to Learning and Teaching (UON, 2019a). Saunders and Hutt have suggested that such use of an experiential learning environment which clashes with many international students’ L&T expectations (Saunders and Hutt, 2014) is a key driver of low engagement. This may help to explain the significant decline in attendance after the first workshop of HRMM072.

# **Possible solutions**

While student engagement, particularly of international students, remains a ‘hot topic’, many helpful ideas have been put forward in the available literature. Although a larger debate is beyond the scope of this study, the ideas that seemed most feasible are introduced below:

## ***Groups***

The use of groups has proven to be an effective conduit to engagement, providing peer feedback and enhancing employability skills when small group activities are embedded into a large class (Kinsella, et al., 2017). Saunders (2019) observes that group work is perfectly possible in large groups, advising as many activities as possible in class to make it ‘normal’. However, challenges identified include ‘left-over’ students who do not fit in a group and who need tutor input to resolve this, groups who do not wish to be split into the specified number (Kinsella, et al., 2017) and “freeloading” students who want to gain the most but contribute the least (Saunders, 2019).

Further challenges include the integration and involvement of ‘attached’ members of an existing group into another group; tutors need to be mindful that some group members may experience attachment anxiety when removed from their usual group, which can adversely affect their learning (Lavy, 2017). Flexibility and vigilance is therefore required.

## ***The use of allocated roles within groups***

As stated by Thomas (2012), the use of collaboration and group-based L&T is a driver for creating a sense of belonging within a group. Furthermore, the pedagogy Process Orientated Guided Inquiry Learning (POGIL), which uses allocated roles within small groups, is a useful way of driving engagement through encouraging individual accountability, ownership and communication with peers (Anon, 2020; POGIL, 2019).

The use of small groups within a large class, and allocated roles, could work well for HRMM072 and the added value of enhancing employability skills through working with unfamiliar peers is potentially a useful ‘selling’ feature to students.

## ***Technology***

With ‘Millenials’ and ‘Generation Z’ students who have not known education without the internet now as the core group within HE, there has been a shift in expectations regarding the use of technology. However, for technology to be empowering it must be effective and reliable because mistakes affect student learning and attainment (Pond, 2015). Furthermore, there is considerable emphasis in the literature (e.g. Jisc, 2008) about the frequent mis-match between expected competency with technology and actual digital literacy.

However Suiso (TEDx, 2018) has argued that enabling students to use video technology can create engagement amongst students who otherwise may not have participated, by making learning fun and creating engagement by stealth, something she characterises as “Lights, camera…engagement!”. Suiso proved colleagues’ predictions of failure due to students’ inexperience wrong, and against the odds, using video brought the students together and gave them a common learning purpose, significantly enhancing engagement. Similarly, according to Ajayi (2015) the use of in-class video in the context of self-reflection can be beneficial because it enables critical reflection on a ‘real’ scenario (rather than performing in front of a mirror), provides a lasting record of a student’s performance/behaviour throughout a scenario and enables multiple replaying of the video allowing students to view different perspectives each time. Furthermore, students can show the video to others to gain peer or tutor feedback (Ajayi, 2015). Although the use of technology can be problematic from a technical perspective and challenges are well documented, such benefits of using video technology are significant in the context of engaging students and facilitating reflective practice. As Saunders (2019) has observed, the ubiquity of mobile phones makes video creation a really good idea.

# **The intervention**

At UON, although students are regularly encouraged to use their own devices in-class to support their learning, the use of video in-class does not regularly happen in non-arts-based subjects. However, in light of the literature discussed, the intervention designed used mobile video technology in groups of four students, to provide individual students with a video of themselves in a mock interview situation. The intervention occurred in the final employability workshop, in which students were expected to put into practice what they had learned about how to perform well in an interview.

Following a short discussion (with pictorial examples) about good and poor first impressions at interviews, dress code and how UK employers can interpret body language, the intervention adopted the following format:

* At the appropriate time in the workshop, students were given 60 seconds to get into groups of 4. Those without groups were supported in finding one.
* Students were asked to number themselves 1 to 4.
* The tutor allocated a specific role for each number: 1 = candidate, 2 = interviewer, 3 = observer, 4 = videographer.
  + Candidates (1) were asked to prepare their own mobile devices to record and pass them to the videographers.
  + The Interviewers (2) were asked to collect five generic interview questions which were individually printed on cards (supplied by the Changemaker Team). Interviewers were also instructed to provide verbal feedback to the candidate they interviewed.
  + The Observers (3) were asked to collect four printed ‘observation feedback’ sheets with prompts that had been adapted by the tutor from a template interview feedback sheet using ‘Positive and Constructive feedback’ headings, and to hand them out to their group. Each group member was asked to put their name on the sheet and hand it, at the appropriate time, to the person observing their interview, following the written prompts.
  + Videographers (4) were asked to ensure they capture the whole interview on camera, from initial greeting to the parting, capturing their candidate’s verbal responses and body language. Videographers were asked to also monitor the time, ending the interview at six minutes if not already finished.
* All students were instructed to move their group away from others to enable better sound quality; to think about the ‘interview room’ layout (chairs/table arrangement) and to conduct their interviews in English.
* Students were instructed to change the question selection between each interview, and the tutors had new batches of questions ready to supply if needed.
* After each interview, group roles rotated so that every student had a chance to experience each of the four roles.

The intervention took approximately 30 minutes, allowing for changing of questions and roles between interviews. At the end of the activity, the ‘take-aways’ were that every student received both verbal and written feedback on their performance by two peers, and a video of themselves as a candidate, captured on their own mobile device.

**Rationale**

As identified previously, HRMM072 typically poses a range of challenges to its tutors. However, there is a universal language that can transcend these barriers: personal technology. Figure 1 shows my rationale for designing the intervention:

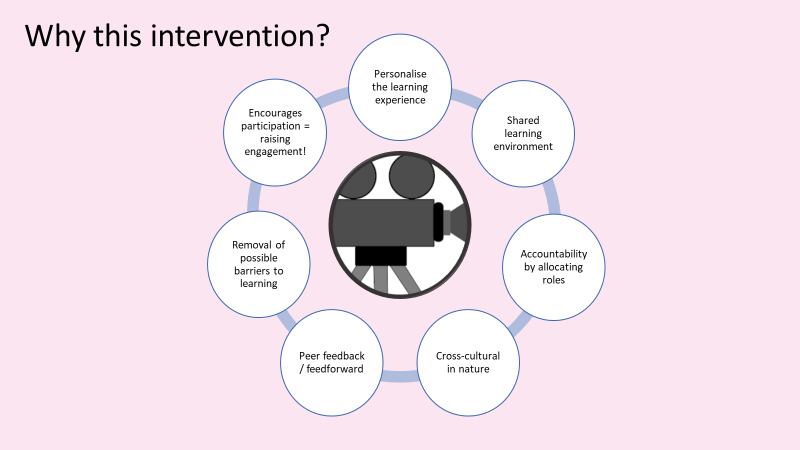


Figure 1: Why this intervention?

Following the advice of Kinsella et al. (2017), and using POGIL as a pedagogical foundation, I designed the intervention using small groups within the larger class because it would develop a shared micro-learning environment and encourage multiple-peer feedback, which had not been attempted previously in this module. Furthermore, the use of peer feedback/forward (Kinsella et al., 2017) and self-reflection, when linked with employability skills-development (Ajayi, 2015), would enable students to receive positive and constructive criticism, reflect on individual performance and appreciate what it might feel like when faced with a real interview: an imminent experience for this module cohort.

Furthermore, as argued by Thomas (2012), the ability to participate in an activity enabling students to ‘own’ four unique roles within a group should also raise engagement levels with the activity. As suggested by Suiso (TEDx, 2018), video technology transcends cultural barriers, and this, combined with the common goal to secure a placement, puts students on equal footing where nearly all are speaking English as a second language.

Finally, the use of both verbal and written peer feedback provides material which students can use as evidence and reflect upon in their portfolio assessment.

## **Peer observation**

This was the final workshop of the module and numbers were higher than in the previous two workshops. Due to the replication of this workshop, I was able to request two colleagues to observe the intervention, with two different groups.

I introduced the intervention without identifying that students were to be involved in mock interviews, simply saying something like, “…and now you’re going to put everything you’ve learned into practice”. I did not mention the word ‘interview’ until the roles were allocated, which was met with a mixture of audible murmurs/groans and a few wry smiles. When I announced the role of ‘videographers’, the students were surprised and delighted, and the atmosphere in the room instantly lifted with an air of excitement never experienced with this cohort.

After providing the full briefing, groups positioned themselves in different parts of the large room. Some groups even created a formal interview layout, using all three remaining group members to form a panel, with tables between them and their ‘candidate’. One of the observers wrote that although the room is not an ideal teaching space due to pillars obscuring vision and numerous entrances/exits, the intervention worked well and students used the space sensibly.

It was encouraging to see how seriously students took the activity, particularly after the reminder that this was possibly their last opportunity to practice an interview in a ‘safe’ and friendly environment. One group had five members due to the number of students in the class, and I allocated the additional person to be a second observer and gave extra time for the additional interview.

The two observers both commented on students’ positive engagement with each other and the task, and observed a, “high level of professionalism within the groups and fantastic engagement” (Swallow, 2019). Every group participated with the activity, with nobody leaving the room. Although some groups took longer to complete their interviews than others, due to some students needing explanations of interview questions from their peers, all groups successfully conducted four interviews and every student had a video of their interview on their own device. One observer commented that they did not see a single student declining to record their interview.

The use of video seemed to bring the class to life, and many students were using features within the video application on their candidate’s phone to zoom in and out, focussing on what they felt was most important. Some keen videographers also used expressions such as “Cut” and “Action” which further encouraged the levels of student engagement with the intervention.

However, despite my reminder that peers can be ‘critical friends’ and that only detailed feedback is useful feedback, one observer commented that the quality of peer feedback was variable and the other observer felt the students needed greater direction on how to apply the headings/prompts on the feedback sheet to enhance their usefulness. The tutors in the room had to visit each group to explain that single words such as “great” or “good” were not enough to help candidates understand their interview strengths and development areas, and both observers saw a lack of understanding of the term ‘constructive feedback’. Tutors had to concede and replace the heading constructive feedback with areas for improvement to enhance students’ understanding of what was meant.

At the end of the intervention, I asked students to provide examples of useful feedback they had received, before asking them to provide me with feedback on how they felt the activity went and what they felt needed amending. Students openly stated they found it very valuable and that it gave them an understanding of how to improve their interview technique. Students agreed that the personal video gave them the unique ability to view and reflect upon their own performance critically, from numerous angles, at their own pace.

The observers both commented that the ‘feeling’ in the room following the intervention was positive, with some students admitting they were nervous, but aware that the activity demonstrated how much more nervous they may be in a real interview.

Student engagement, as defined by Axelson and Flick (2010) was the highest it has been with this cohort. Despite the class size and evening timetable due to resourcing challenges (Saunders and Hutt, 2014), the use of small groups within a large class (Kinsella, et al., 2017), and the allocation of individual student roles within the intervention, were significant factors in motivating students to participate, offering equality of opportunity, accountability, collaboration and inclusion. Furthermore, the ‘take-away’ legacy from the workshop of a personal video facilitated student reflection on their performance in a real scenario and enabled them to address their own development areas before any real interview (Ajayi 2015).

# **Evaluation**

Where the outcomes of previous workshops with this cohort had confirmed the view that international students often lack academic skills and do not engage with activities due to different learning and teaching methods in their home countries (Lomer and Anthony-Okeke, 2019; Saunders and Hutt, 2014), the designed intervention had a different outcome. The use of small groups embedded in a larger class did promote peer feedback and enhanced students’ employability skills (Kinsella, et al., 2017), despite the high percentage of international students.

However, as highlighted by Kinsella, et al. (2017), tutor input was indeed needed to facilitate integration of students ‘left-over’ after initial group formation and some existing groups of friends did not want to be split, requiring considerable tutor persuasion to work with others. Furthermore, it took longer than 60 seconds for students to form their groups of four which was frustrating, but understandable given the diversity within the group. When I repeat this intervention, I will emphasise to students the importance of following instructions quickly, particularly in light of their pending assessment-centre interview processes.

However, contrary to Saunders’ (2019) warning, there was no freeloading identified and all students seemed to participate equally. This is really encouraging and gives me food for thought about previous activities within my teaching material for this module: I need to consider how I can create more group-based learning activities where individuals have their own area of responsibility or role, and where students can bring their own personal experiences into the classroom without putting them in the ‘spotlight’ in front of the whole class. Interviews are perfect for this, however, there are numerous other activities within the module where sharing personal experience is encouraged, but to date has not been successful. I will review these activities.

The use of personal video technology as a way of engaging and facilitating reflective practice seemed to bind the group together, making the intervention fun and not a chore. As argued by Suiso (TEDx, 2018) and Saunders (2019), engagement was created via mobile video technology, removing any academic, cultural or diversity barriers that may have been present previously. As one of the observers wrote, self-directed learning was evident throughout the intervention, and the perceived value of this was clear to students. I will now consider what other ways I can bring the use of video into workshops earlier on this module.

In light of the two observers’ comments, another area I need to consider in the future is how to incorporate an activity on giving constructive feedback, prior to this intervention. Both observers saw a varied level of feedback by students, from single words to bullet points, however, few students really understood what was meant by ‘detailed constructive feedback’ as instructed on the printed feedback sheet. Consequently, some students did not maximise their opportunity to provide two sets of feedback to peers, or gain material on which to reflect in return (Ajayi, 2015). An observer suggested the unfamiliarity of peer-to-peer feedback may be something particular to international students, and I will research this to find out how I can improve this element of the intervention. As suggested by Saunders (2019) I will consider giving a small prize to the person providing the best feedback, as an incentive, to further raise engagement.

In response to one group’s feedback, I will consider whether it is feasible to incorporate some industry-specific interview questions, rather than all-generic questions. With the Changemaker Hub providing the questions for the activity, the random interview questions are deliberately generic and allow every student to answer them irrespective of the role applied for. However, I can see that students would benefit further from specific role-related questions, although this will be challenging given the diversity of programmes, student numbers and limited tutor knowledge of interviewing for such a range of roles. I will consider whether it might be possible, and if so, I will alter the group formation to preferred industries prior to asking students to get into groups of four. I must be mindful not to over-complicate the intervention though, and to maintain an equitable learning opportunity (Maringe and Sing, 2014).

One observer commented that the interview questions provided students with a practical approach to, and a clearer understanding of, employers’ expectations in the UK labour market, whilst highlighting also the lack of detail in many student responses. I need to better explain the use of the STAR (situation, task, action, result) interview technique before the intervention, to further enhance students’ benefit from the intervention. I will therefore consider designing an activity around this model in a previous workshop.

The intervention went better than I anticipated, and the results overall were positive. The room was ‘buzzing’ with task-based discussions afterwards, and I could see students already watching their own interview videos; in fact, I had to ask them to put their phones away before we could move on. While there are alterations to be made to the intervention, as described above, I am personally relieved to have finally created engagement with what has otherwise been a challenging and non-engaged group.

# **Recommendations**

As a result of the experiences outlined above and in accordance with the literature consulted, the feedback from two observers, and student feedback from within the observed workshops, the following recommendations are presented to colleagues in priority order:

1. If teaching a large class, try to use as many small group activities as possible, particularly where employability or reflection are focus areas. The encouragement of students to work with different peer groups will strengthen students’ employability skills and support their future prospects by developing their communication skills, helping them to learn from students from different backgrounds and honing their teamwork skills, thus supporting one of the key Changemaker values of working collaboratively (UON, 2019b).
2. Use a student-led pedagogy such as POGIL and design activities/tasks that utilise allocated roles for some, if not all students. The creation of accountability/ownership is a driving force in raising engagement in activities, by providing students with something particular to ‘champion’ or focus on within the activity/task. This would work for small and large classes, although it is advised the tutor creates at least one role that can accommodate multiple students, to accommodate ‘left-over’ students. In my intervention, it was the ‘observer’ role that was duplicated to accommodate a group of five students.
3. Give students opportunities to describe experiences they have had to other students (in this context they were work-based experiences). The activity helped to create a sense of belonging in the group and broke down cultural barriers.
4. Try to design activities that provide students with ‘take-aways’ that can be reviewed, re-visited or re-watched in their own time. This adds value to the activity and encourages future engagement. Depending on the type of activity/technology chosen, this could be, for example, a video, document, spreadsheet, slide or audio file.
5. Design activities/tasks that use mobile technology as an aid to learning and teaching, because it creates common ground; a ‘universal language’ which crosses boundaries created by cultural, academic and programme diversity. Crossing these boundaries with technology brings students from diverse backgrounds together, creating unity and encouraging a sense of belonging within that group.
6. Create activities/tasks that utilise structured documentation: although the adapted ‘feedback form’ used in this intervention needs some altering to better explain and instruct how to provide constructive feedback, the fact that students had their observations directed was helpful and kept them on the right track.
7. Immediately ask students for feedback on tasks and activities to enable tutors to amend activities immediately, rather than waiting for module evaluation forms that may never be forthcoming. One of the observers commented on this as something she was taking away from observing the intervention, which I am proud of.

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Case study 3: The BTEC ‘problem': one strategy aiming to help with retention, attainment and progression

## *Kate Swinton, Learning Development Tutor, LLS, UON*

**Statement of problem**

Over the past few years, there has been an increase in BTEC (The Business and Technology Council) students attending Higher Education Institutions (HEI), with approximately 100,000 BTEC students applying for a place each year (UUK, 2017). However, while there has been an increase, these students are less likely to achieve a 'good' degree (Gartland *et al*., 2018, p. 638) and BTEC students drop out of a degree course in greater numbers than any other group (Kelly, 2017). This appears to suggest that having a BTEC has impacted a student’s success in Higher Education. As such, it is a problem that needs further investigation and addressing.

**Context**

The need for effective student support has been a key consideration within the University of Northampton (UON), with UON introducing embedded key skills across all undergraduate courses in 2018/19. As such, Learning Development now delivers workshops to all programmes in both level 4 and level 5 and it is the role of a Learning Development (LD) tutor to support all students with their academic work. As a LD tutor I work with students in a number of different ways, through embedded workshops, drop ins and booked one-to-one tutorials. Research on LD one-to-one tutorials has shown that these helped with retention and attainment (Loddick and Coulson, 2019). Additionally, UON has identified courses with a high number of BTEC students where LD could offer more support to the students, in the form of group tutorials. As a LD tutor I was asked to deliver some of these tutorials.

While HEIs in the UK all typically have academic support services, the embedded nature of UON skills support, across all academic courses, is believed to be a first. As the introduction of the additional support for courses with high numbers of BTEC students is new, this case study will be based on my delivery of a BTEC group tutorial session within a level 4 course. It will begin by considering the key factors around the issue of attainment, retention and progression associated with BTEC students. It will then discuss and evaluate the intervention before making recommendations.

**Literature review**

To get a clear understanding of all the issues surrounding the ‘BTEC problem’ it is important to begin with briefly examining the BTEC student’s journey to university. Imperial College London is the only university in Britain who does not officially recognise BTECs as an entry level qualification for their degrees (Imperial College London, 2018). However, while all other universities say they take BTEC students, there is a clear discrepancy between institutions. In 2012/13 only two percent of Russell group students came with a BTEC qualification; students who take ‘non-traditional’ subjects are more likely to attend a post 92 institution. However, even these institutions only accept ‘49 BTEC students for every 100 A-level students’ (UCAS,2014, p.6). Baker (2019) argues that institutions are still targeting schools over Further Education establishments. Students who chose to do vocational qualifications are not always aware of their options for degrees (Leathwood and Hutchings, [2003](https://www.tandfonline.com/doi/full/10.1080/00131911.2017.1293614), p.142) and even at application stage support may be lacking, leaving students to navigate the process by themselves. Arguably the way BTECs are valued within Higher Education is limiting the students’ choice and therefore creating a barrier.

Once at University there is a significant discrepancy in completion of degrees, and under 60% of BTEC students who attend a Russell Group university complete their degree (Kelly, 2017, p.21). However examining the statistics for the BTEC qualification in isolation is too simplistic and ignores other key factors that have a known impact on students’ chances of success; it is important to also analyse the makeup of the student group. Students who take BTEC’s are more likely to be from lower socioeconomic groups, and to be the first in their family to continue into Higher Education (Rouncefield- Swales, 2014; Baker, 2017). Also, proportionally BTEC’s have more Black, Asian and Minority students on the course than A-levels. Finally, BTEC students are more likely to be young men (Kelly, 2017).

Shield and Masardo (2018, p.163) argue that while these are the characteristics of a BTEC student, the relationship between entry qualifications and the outcome of the degree classification appears more important. Their research shows that, based on the outcome of cohorts across all courses, and generating an average, the degree classification achieved by BTEC students is still lower, independently of other factors. Of course, by analysing results across all courses, rather than in discrete subject areas, there is a danger of creating generalisations of outcomes and they acknowledge the potential of significant variations between courses (Shield and Masardo, 2018, p.163). Similarly, while there is clearly evidence that entry qualifications do play a part in attainment levels, one further area that needs to be considered is retention, which Shield and Masardo (2018) do not examine.

To understand retention and progression Katartzi and Hayward (2019) argue that research needs to go beyond the surface level, to look at specific courses and consider the students more individually. Students coming from non-traditional courses struggle to decode the academic structure and language. This leads them to question the worth of their previous knowledge, creating a sense of not belonging in university. Katartzi and Hayward (2019, p.7) believe that the primary friction in progression is the student not recognising their own worth.

The idea of worth based on the student’s academic experience at University can be linked with research on student expectations. Roberts (2011) interviewed non-traditional students and found that experience of teaching approaches was widely different to what they had expected before coming into HE. It appears that this applied to all areas of teaching, from delivery, content and contact hours. Interestingly it also identified students’ negative feeling against themselves when it came to their own understanding of academic work. While Roberts (2011, p. 190) did not unpick this, it supports Katartzi and Hayward’s findings on worth (2019, p.7). The fact that these students are internalising the responsibility for academic issues needs to be addressed by both Learning Development and the course lecturers.

Therefore, although these students are gaining places, as Tinto (2008 cited in Mountford-Zimdars *et al*., 2017, p.101) has argued, ‘access without support is not an opportunity’. It is the responsibility of the University to support all students. Mountford-Zimdars *et al*. (2017, p.105) suggest that for there to be effective support, universities need to first understand their students.

As well as understanding who the students are, it is important that students are also given a voice. Forbes et al. (2006, p.5) suggest that students feel unheard, especially when it comes to the planning of retention strategies. Research shows that two-way communication allows for better understanding from both sides. Mountford-Zimdars *et al.* (2017, p.105) identified that not all students have a clear understanding of what support is available or how they can access the support offered. Learning Development tutors clearly have a role in ensuring both staff and students understand there is support on offer.

As well as offering appropriate academic support it is important to consider how this support is delivered. Research has clearly shown that embedding support within a course is more successful than providing additional support as a bolt on (Mountford-Zimdars *et al*.,2017; Wingate *et al*., 2011). White (2014) suggests that as well as embedding skills support, it is important to consider the content. He argues that time needs to be spent on explaining the assessment, decoding the criteria and ensuring an engaging experience.

The argument is made that it is important to put the student at the centre of the learning. Adopting a student-centred approach and developing the expert as a facilitator to the student can help the student have a deeper understanding of the topic (Tangey, 2014). This approach also allows the student to take ownership, developing not only their independent study skills but also academic skills such as critical thinking. Embedding and careful consideration of the content of student-centred approaches would help address some of the students’ issues around understanding and hopefully increase the student’s sense of worth and identity. This approach has now been introduced by the University, with the creation of the ILS, which embeds the skills session within the course. As the approach is newly created, research is yet to be carried out to see whether students have a clearer understanding of these skills.

Increasing a student’s understanding, demystifying the academic world should hopefully increase the students sense of belonging within a university. The sense of belonging to both the course and the university has been seen to increase the chances of a student graduating as well as improving their levels of engagement (Thomas, 2012). Masika and Jones (2016, p.147) believe that both the teaching and the curriculum need to find ways to show the diverse body that they belong to the university. Their research also shows that group work, within a course, can assist first year students in feeling that they belong. Thompson (2017, p.187) argues that however an individual self-identifies it is the institutional culture that creates the sense of belonging.

While the research clearly identifies belonging as a key factor in retention, Cotton *et al.* (2016, p.467) suggests that research is lacking comparing student experience and university environment to degree outcome. He believes that this needs to be considered especially when researching BAME and gender. Regardless of ethnicity, there is a gap between degree classifications for men and women. Women achieve better degree classifications in comparison to men, except in first class awards, where there is no difference (HEFCE,2014). Interestingly the findings of Cotton *et al*. (2016) show that males spend more time in university activities, such as sports, but that this does not have a positive impact on the results for white male students. This suggests that belonging and being part of the wider university experience, while helping retention, may not be as beneficial for attainment levels. It may be that if students spend more time on activities such as sports, they have less time to study. Research by Cotton *et al* (2016, p.482) identifies this as one key reason for the difference in attainment levels between genders. They found that males are also reluctant to admit to studying, due to the negative associations among peers. Another factor may be that the research found that when lecturers are asked to describe a good student they use characteristic associated with females. This introduces the idea of potential unconscious bias.

Conscious and unconscious bias within higher education has been identified not only in terms of ethnicity but also in relation to socioeconomic groups and perceived student abilities (Hinton and Higson, 2017). Hinton and Higson (2017, p.3) suggest that in part this is the similarity effect, and can account for up to 62% of difference in assessment grades. Part of the issue of bias can be addressed by anonymous marking. However, this would not address the issue of bias within a face-to-face session. If we are aware that certain groups underachieve, there is the possibility that unconscious bias accepts this as a reason, rather than trying to truly address it. Therefore, it is the role of the Learning Development tutor and the lecturer, working together, to find effective ways to address this.

**The intervention**

As mentioned earlier, a course with a high number of BTEC students had already been identified for which additional group tutorials were to be offered by me. I decided that these group tutorials would be the best situation in which to deliver the planned intervention.

It is important to note that the students themselves were not aware of the additional support introduced and that within the course, the group tutorials were offered to all regardless of their entry level qualification, with no difference between BTEC students and others. A further factor that I felt was important to consider is that whist engagement with individual one-to-one support offered by LD is self-selecting, for the group tutorials I was going into a course session to take bookings. While the option was there for students not to book onto the group tutorials, I am aware this is not truly self-selecting, and that by taking the bookings to them they may feel pressured to book and therefore potentially not engage.

Therefore, I needed to consider the best way to group the tutorials to maximise the benefit and hopefully ensure engagement. As shown in the literature, students must be clear as to the benefits to their individual work to be willing to access and engage with support services (Mountford-Zimdars, 2017). The course involved a mix of genders, and being aware of the gender association with studying (Cotton *et al*. 2016), in arranging the bookings of the tutorials, I thought carefully about the language used. All groups within the session booked a time slot that suited them best. If any students in a given group were not present in the seminar when bookings were made, the decision on date/time was made by the majority as to what would work best. All students were then sent confirmation emails with the allocated time slot for them to attend.

Once the practicalities on delivery were arranged, the next step was to plan the most effective intervention. The core skill had already been identified by the group presentation assignment. I decided that as there were up to five students in the group it would be best to create a clear plan for the session. During the booking stage I discovered that the groups did not know everyone they were presenting with, so I needed to take this into consideration when planning the intervention, allowing time to be spent on introductions, to make not only the intervention, but the end presentation itself, successful. This was especially important as the literature clearly identifies the sense of belonging within a course as important to retention and attainment (Thomas, 2012; Masika and Jones 2016). As the tutorials were only 30 minutes, quick, effective introductions needed to be the first part of the session.

Further elements of the intervention were then designed to ensure that all members of each group left their tutorial with a clear understanding of what makes a good presentation at level four. This would then ensure that the criteria and academic language to be used by the academics in assessment had been decoded, enabling students to feel confident that they had understood what was expected of them (White, 2014). The session was planned so that they would then create clear plan for the next step of their presentation.

To ensure effective learning, and for the students to begin to collaborate as a group, I felt that my role should be more as a facilitator (Rowley *et al*., 2018). To enable this style, I had picked an open space area, where the students would be able to sit comfortably in an informal circle. Hopefully this layout and environment would make the students feel more secure in themselves and open to learning.

A particular point that played on my mind was the idea of lecturers making assumptions based on the student’s qualifications. I therefore made a conscious effort not to have any assumed expectations of the students and their abilities. The questions designed for the tutorial would hopefully bring out knowledge and identify gaps to address without the student feeling self-conscious.

**Peer observation**

Before the intervention I met with the observer to discuss the key areas that I would like to be observed (Byrne *et al.,* 2010). As the session had been planned with me as a facilitator I felt it was important for the engagement of the students to be observed, both as individuals and as a group overall. Alongside this I asked the observer to consider the use of environment and layout. Had the environment and layout been as conducive to the session as I had thought it would be? As one of the core objectives was for the students to leave with a clear plan of the next step for the group to work on, I wanted to know whether it was felt that this was achieved. The observer was also given the lesson plan (See the Appendix) to refer to if required during the observation.

At the time when the tutorial was meant to start, the group had to wait for one student to arrive. Due to the time allocated for the session, I waited for a couple of minutes and then felt it was important to start. When the student arrived ten minutes late, I did stop the conversation, so she could take a seat. The observer identified this as interrupting the flow of the session, but overall the observer felt that students were engaged with the session and all seemed to enjoy it. The observer did however raise the environment as an issue. The session was delivered in an area with some background noise, which at times caused students to be distracted and had to be refocused. I agree with this, since at times even I had to concentrate to hear.

The observer noted that the group was able to identify what they needed to do both as individuals and as a group to create a good presentation, and that students left the session with a clear plan as to their next individual steps and a clear plan for the group. The observer identified this as an important part of the session. She commented that the students seemed more confident in themselves when this had been done. However, the observer identified that this felt rushed and she suggested that I think about where I could possibly introduce this earlier in the session.

**Evaluation**

On reflection, while there was a need to identify a clear objective for the group tutorial, having such a structured lesson plan felt like I had introduced restrictions. As a facilitator to the session, it was not necessary to have such a formulaic plan. Alongside this, I realised early in the session that I had planned far too much and needed to just let the session develop naturally within the boundaries of the overall objective.

Identifying and planning what they needed to do as individuals and as a group appeared to increase students’ confidence, which is an invaluable skill at University (Chemers *et al*., 2006). Therefore, this part of the tutorial has had a positive impact on the group, and I am keen to develop this further. For the next iteration of the group tutorial, I would introduce this earlier in the session, potentially starting with it and then introduce how to develop this into a good presentation. Narrowing the session down to these two areas would be enough for half an hour which would remove the sense of rushing that had been identified as an issue.

A harder issue to resolve is that of a student arriving late to the session. This is something faced regularly in sessions and this interruption does affect the group. It is difficult to identify the best course of action to reduce the impact on the group. Everyone is aware of a student arriving late and sitting down, especially in such a small group, and therefore continuing instead of stopping would have potentially caused the same interruption to the session.

While it was clear that students engaged, and the seating arrangement helped make them feel relaxed, the noise levels of the surrounding area did have an impact. Therefore, a different location needs to be considered, identifying somewhere more private. Potentially using a booth for a group tutorial may be worth considering since a classroom layout, while private, would not offer the same informal setting.

The hardest part of the evaluation is assessing whether the intervention within the group tutorial will have any impact on the overall issue of retention, progression and attainment. The results of the assignment are not yet known and as this is the students’ first marked piece of group work it is impossible to benchmark before and after. However, two of the five students have booked in for a further one-to-one tutorial, which arguably shows that there was a positive impact.

I believe that going in with no expectations and preconceived ideas of the students’ abilities also helped me. Making a conscious effort to ignore the ‘BTEC issue’ was important to the session working. By not making any assumptions I was able to work with the students at the level required, making them aware of the academic requirements of level 4 and importantly letting them see it was achievable. Students deserve us to see them as individuals, not as a collective problem group.

**Recommendations**

From the evaluation of the intervention and the literature review, the following recommendations are suggested to address the issues of retention, progression and attainment for BTEC students in higher education:

The first recommendation is to establish a specific focus group made up of BTEC students taken from each year. It would also be useful to hear from recent graduates about their experiences. The literature review shows that while universities have some awareness of the issues, they do not always have a true understanding of their students; hearing from these students will give a much clearer picture.

The second recommendation is linked to the intervention, the introduction of a second tutorial. This tutorial would be to firstly establish whether the students implemented their plans and secondly to ensure their understanding of the assignment criteria was not just surface level. For the next tutorial I would have identified a quieter space, that while still informal would not have the noise distractions. The intervention also reinforced the importance of effectively dealing with the issue of lateness. As a tutor creating a consistent message when it comes to lateness, both in tutorials and in sessions, it should not be normal. While this will assist the tutor, it will also develop the students’ professionalism and help in employment.

Another change to consider to the intervention is the length. While the evaluation identified the need to reduce the number of learning outcomes, it also might be worth extending the group tutorial. If the tutorial was extended by just fifteen minutes this might reduce the need to rush things and possibly allow for a more natural finish, with more time for individual questions.

The next step is to examine further the relationship of belonging and understanding the academic world from the BTEC perspective. This would also involve a further exploration of the idea of bias and labelling.

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**Appendix: Workshop lesson plan**

|  |  |
| --- | --- |
| **Title: Group presentations** | |
| **Aims**:  Introduce what makes a good presentation | |
| **Objectives:**  Introduce students to:   * Identifying a good presentation * Identify clear structure * Develop plan * Academic requirements | |
| **Equipment Required**:  Spare paper and room | |
| **Activities:**  **Juveniles should be treated as adults in the court system.** | |
|  | **Activity** |
| 5 mins | Introduce myself and group – what stage are they at in presentations |
| 5 mins | Ask group thoughts on presenting |
| 5 min | what they think makes a good presentation |
| 5 min | Link their responses to academic presentations |
| 5min | Group plans their next steps |
|  | Q and A |

Case study 4: One approach to improve HE students’ motivation and engagement with the online activities within blended learning

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# **Statement of problem**

Student engagement with online learning activities and formative assessment is often a challenge at both under- and postgraduate levels, as many students tend to overlook these activities, such as reading of case studies or short articles and completing more structured e-tivities. It has been noticed that non-engagement happens even when those online activities are communicated as relevant for setting the scene for the next class, or as contributing to the upcoming assessment. As time has to be allocated in class for those who need to catch up with uncompleted preparatory work, the consequence of this is twofold: the students who did the preparatory activities may lose motivation; and the depth of learning and reflection is largely compromised when an activity has to be performed in a reduced class time.

Because of that, the focus of this case study is to propose possible ways to improve student motivation to do online activities, such as e-tivities or formative assessment within blended learning modules. The case study is based on the teaching practice in a third-year undergraduate module in UON titled Customer Relationship Management. This module is delivered in weekly workshops to a cohort of 30 students, with a good mix of British, European, Middle Eastern and BAME students, all UK based.

In the first term the work and assessment was mostly individual, while in the second term work has been a mix of individual and project-based assessment. Across the module, three workshops (two hours each) have been substituted by three e-tivities, designed to be completed less than two hours each. This choice was intended to avoid the students feeling being overloaded and skipping the e-tivities. The e-tivities were aligned to the learning outcomes and contributed to the assessments. It was hoped that the topics chosen would be relevant to the students and close to their experience as consumers. As a further incentive, students were aware that the completion of the e-tivities was to provide them with the opportunity to demonstrate one learning outcome, “engagement and constructive participation”, which contributes 7% of the module grade. Another advantage to students was to receive feedback to scaffold their learning towards the summative assessment.

These e-tivities are formative assessments, and two aspects have been considered in this case study: participation (number of students submitting their work) and quality of the submissions. The first e-tivity was completed by 57% of the students and the overall quality of the submissions was relatively low (see Table 1). The second e-tivity was submitted by only 21% of the students and the quality of the work was medium-low (see Table 2). The third e-tivity was designed with the application of the 3D model devised for this case study, addressing one of the learning outcomes of the module, and was submitted by 50% of the students with a range in the quality of work, some good and some relatively low (see Table 3).

To gain a better understanding of students’ perception of these e-tivities, an individual reflective piece has been included in the final assessment, in which students reflect on some open-ended questions. The results will be reported in this case study (see Figure 5 and Table 5).

To improve students’ learning and take advantage of the Active Blended Learning (ABL) pedagogic approach, the literature on the motivation of learning communities and learning styles was reviewed, and potential improvements to the module were hypothesised. Investigation and testing will be needed in the coming academic years to examine the outcomes further.

**Literature review**

Literature on students’ engagement with blended learning is wide and relates to many learning theories. One aspect in common is that there is a positive correlation between students’ engagement and learning results (Wang *et al.,* 2008).

In particular, engagement with online activities depends not only on the students’ individual characteristics, but also on their organisational skills, and both of those factors are dependent on the environment (May *et al.,* 1999). Indeed, individuals have their own motivation, a particular learning style, self-efficacy and self-assessment (Bandura, 1977), and a specific cognitive process, which constitutes a characteristic of each person. However, engagement is also related to choosing when, where and for how long to learn, and this is also related to factors in the external environment such as work, family social duties, and the learning environment (Boyd, 2004). It is therefore relevant to analyse both the internal motivation and external factors that influence individuals’ attitude and engagement.

The internal factors of motivation illustrated by Keller (2008) in the e-learning model, are summarised in the acronym ARCS: Attention, Relevance, Confidence, Satisfaction (Merril, 2002) with the addition of Volition (Kuhl, 1987) and Self-efficacy (Corno, 2001). These characteristics of motivation cannot be disentangled from external factors, because many cognitive functions are interpersonal (Vygotsky, 1978) and therefore interactions with learning materials, tutors, peers are relevant.

The *attention* component of motivation is related to the curiosity generated by the gap perceived by the learners between their knowledge and the new learning, but it is necessary to sustain this attention with a variety of triggers and activities (Zukerman, 1971). It is also true that attention is related to student-student interaction, which unifies personal, and therefore subjective elements, with the social. Indeed, Dewey states that meaning is constructed through repeated sharing of ideas and thoughts (Dewey, 1938, cited in Garrison *et al.*, 2009, p.6), evidencing the fact that motivation is related to social context, where ideas are shared to construct knowledge. In support of this idea Wilson (2012) argues that collaborative learning is intrinsic to human nature (Wilson, 2012, cited in Garrison, 2016, p.vii).

Motivation is also related to *relevance* of the learning content, the meaningfulness for the learner, and the alignment to the learning goals, in accordance with the theory of constructive alignment (Biggs, 1996). “Meaningfulness” provides strong motivators, such as the objective of passing a module, self-determination towards personal goals (Deci *et al.,* 1985), the need for competence (White, 1959) and affiliation achievement, namely resulting professionality and social acceptance.

Likewise, motivation needs the *confidence* of learners to succeed in mastering the tasks, which is related to self-efficacy (Bandura, 1977). Indeed, students’ perception of control over their academic performance is a strong predictor of their achievements (Yeh, 2009).

On the other hand, considering that learning is also a social process, there is the need for a balance between the success of the individual and of the group (Wilson, 2012, cited in Garrison, 2016, p.1). Therefore, *satisfaction* comes both from a win-win outcome within the learning environment, and from personal positive experiences (Maher, 1976). This draws attention to the need for extrinsic reinforcements to support motivation, such as rewards and recognition (Thomas, 2012), the satisfaction of applying what is learnt, and a sense of equity and fairness (Adams, 1965). Likewise, engagement develops through active collaboration amongst tutors and students (Neary et al., 2014).

A further factor influencing motivation is *volition*, understood as the ability to stay on task, the skill of self-regulation (Kuhl, 1987), but also related to individual expectations of their own role in the future. In particular, students’ knowledge of what they want to do in their future is a key element of motivation, as it enables the learners to recognise the value of learning activities, even when they are extracurricular. This, as a consequence, can lower the barriers of concern about the time a task requires and lead to stronger time commitment (Strudwick, 2017).

On the other hand, the idea of learning in a community, rather than only as individuals, highlights other aspects of motivation. A competitive element can encourage students to challenge ideas, and move them outside of their comfort zone, avoiding “group-thinking”, a phenomenon typical of social-media, reducing critical thinking and pressurising individuals to conform to the norm (Garrison, 2016). In fact, scepticism and criticism are necessary in the learning environment, and can be a source of motivation (Meyer, 2014). Nevertheless, social media and group-thinking are not the only reasons for a lack of critical thinking in the younger generation. This is related also to a crisis of the younger generation feeling disoriented and without a perception of their scope in society (Mancuso, 2020). Consequently, there is the need for pastoral and time management support for students as well as focussing on employability and personal goals.

A criticism of the fact that only certain individuals are motivated according to the above-mentioned ARCS factors, is proposed by Seli (2019), who argues that most students are motivated, even if this is not evident. Indeed, considering four motivational profiles, most students are motivated either by striving for success or to avoid failure. Only very few can be relegated to the “failure acceptors” category - students who dislike having experience of academic challenges and do not believe that any effort to study will make any difference (Covington and Roberts, 1994). Therefore, according to this theory, motivation is mainly related to being awarded a ‘pass’ in the assessment. However, this approach focuses mainly on internal factors, as it does not sufficiently consider the learning environment, the relationships that are an integral part of motivation (Wang et al., 2008), nor the possibility of stimulating and sustaining motivation (Suzuki, 2004), by applying the Situation-Outcome-Expectancies (SOE) (Rheimberg et al., 2000), and motivational messages from tutor to students (Visser, 1998).

Furthermore, quality of learning is also related to the motivation of positive outcomes. It is relevant to consider students’ expectancies that are a relevant part of the student-teacher interaction (Anderson, 2003). Likewise, learners adapt their learning level to both expectations and the learning environment (Marton, 1988). Indeed, motivation and engagement have an impact on the educational experience (Entwistle, 1983), bringing two distinctive levels of understanding and learning (Biggs, 1987):

* a surface-level of processing, where students’ concept of learning is reproductive, and consequently a memorising strategy, and
* a deep-level of processing, where the intention and the expectancy is to understand, and sequence the new information, and integrate it with existing knowledge (Marton, 1988), corresponding respectively to a lower and higher level of Bloom’s taxonomy (Bloom, 1973).

Similarly, Berger and Archer (2018) see learners having two possible types of achievement: the “mastery” goal and the “performance” goal. Motivation is therefore related to goal orientation. “Mastery goal” students learn as much as possible for the purpose of self-improvement, while “performance goal” students focus on social comparison and competition to outperform others or gain results within a certain range of the overall cohort achievement.

Considering all the aspects mentioned above, the starting point to develop an intervention within the CRM module, via a blended learning approach, was to identify a model that would relate student motivation to e-tivities and to the blended learning environment. Some of those models have been considered and compared to identify the potential areas of improvement.

***Bloom’s Taxonomy***

The simplest one, Bloom’s Taxonomy, is quite limiting for the purpose of this case study. Indeed, it considers only cognitive learning, which is not sufficient to embrace the complexities of the online learning environment (Keller, 2004). An extended model, which encompasses the three main learning domains, Cognitive, (Bloom, 1956), Affective (Krathwhol *et al.* 1973), and Psychomotor (Simpson, 1972), can be more successfully applied to a learning environment where e-learning is used (Odhabi, 2007).

***Salmon’s five-stage model***

As already seen, the learning environment is an important factor in motivation. Salmon’s five-stage model suggests a variety of activities supporting different stages of adaptation to the learning environment, to facilitate student access and motivation. The model initially focuses on online socialisation, moves to information exchange, and eventually provides for knowledge construction and development (Salmon, 2003). But one of the major critics of Salmon’s “five-stage” model, is that it only relates to online networking, and fails to accommodate blended situations where there are face to face learning opportunities among students and tutors (Chowcat, 2005).

***Moule’s (2007) “e-learning ladder” model***

In contrast to Salmon’s five-stage model, Moule (2007) suggests the “e-learning ladder” model, which considers various learning approaches that progressively increase in terms of skill and community interaction, from individual learning (Instructivist) to an interactive model (Constructivist). Therefore, it accommodates a wider application of learning approaches and motivational supports. In the top “rung”, students engage in a Community of Practice (Wenger, 1998) and such engagement in the community may require application of learning approaches acquired in previous phases. This takes into consideration differences in student learning preferences and skills, as well as the different type of tasks that the tutor may design for different learners, which can have a positive impact on their motivation and engagement (Moule, 2007).

Nevertheless, motivation and student engagement may not be fully supported by a community of practice at the top of the e-learning ladder, as the necessary longevity of participation is not guaranteed, and the social interaction is again limited to online activities. Therefore, to fill this gap and create a more effective motivating and engaging learning environment, it is relevant to shift from cooperation among the students and the tutor to a form of collaboration (Vygotsky, 1978). Bryson (2016) comes to a similar conclusion, using the concept of partnership, stating that the future of student engagement lies in “partnership”. Indeed, to collaborate implies to openly communicate, and to have a common purpose aimed at constructive critique and finding shared solutions, which in turn leads to collaborative constructivism that characterises Community of Inquiry (COI) (Lipman, 1991).

***Community of Inquiry***

The Community of Inquiry seems to be a solution that embraces Cognitive, Teaching, and Social presence, which in turn foster student satisfaction, as they perceive both the learning (metacognition) and the sense of community (social collaboration) (Garrison and Arbaugh, 2007). Social presence is a mediating variable between Teaching presence and Cognitive presence and enables students to engage by identifying with the community and communicating positively in a trusting environment, in turn enabling them to develop interpersonal relationships (Garrison, 2009).

The combination of the engagement and motivational factors in a Community of Inquiry with a learning model, such as the Kolb learning Cycle (Kolb, 1984), and the differentiation of students’ needs with the Bloom taxonomy (Bloom, 1973), was the methodical foundation of this work and possible improvement for future practice. The following sections will build upon the findings from literature and the experience in the CRM module to propose a new three-dimensional model for an improved practice.

**The intervention**

***E-tivities in Term 1***

The focus of the CRM Module in Term 1 is on theoretical concepts and frameworks and is assessed by an individual essay (AS1). Two formative assessments in the form of e-tivities were designed to contribute to AS1, aligned to the learning outcomes. Both e-tivities were relevant, as they regarded students’ experience as buyers, and supported their understanding of the ‘Customer Journey’, which is the learning outcome to be assessed by AS1, thus ensuring constructive alignment (Biggs, 1996).

Both e-tivities were introduced by a LinkedIn video (58 and 34 minutes respectively), divided in chapters, facilitating multiple short sessions interacting with content. The videos referred to some exercises that were part of the e-tivities. Furthermore, these videos gave the students the opportunity to review the main topics explained in class and, in case a student did not actively participate in the workshops, the videos provided a back-up.

The first e-tivity (E-tivity 1) comprised three progressive steps, and students were requested to complete them all. Step one was to define a ‘Customer Persona’. Step two was to develop a draft of the ‘Customer Journey’ using the LinkedIn template. In step three students were requested to share their work on a Padlet, to reflect, and give feedback to a peer’s work.

Feedback on student work was provided by the tutor to scaffold their learning. This approach was in line with the interaction equivalency theorem (Anderson, 2003; Anderson, 2011) providing multiple levels of learner – content – teacher interactions, for a better learning experience.

The e-tivities aimed to support students’ deeper learning by using different learning sources, and to enhance student active engagement by involving them in the production of documents and frameworks contributing to the summative assessment, in line with Constructivist learning theory (Bruner, 1977).

The results of E-tivity 1 were not totally satisfactory in terms of the completeness and quality of the submissions, as shown in Table 1 below.

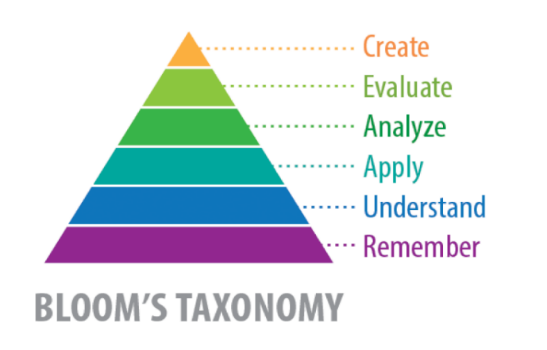
|  |  |
| --- | --- |
| **E-tivity 1 – week 3** |  |
| No. of students who submitted: | 16 out of 28 |
| % of students who submitted: | 57.1% |
| Average quality of the submissions: | 8 (on a scale from 5 to 10 where 5 is very poor and 10 is excellent) |

Table 1: Number and quality of submissions to E-tivity 1

Class discussion the following week showed that few students had watched the whole video, preferring to “guess” the best solution for the assessment, thereby minimising the time and effort to complete it. This showed only low level motivation and engagement.

The interpretation of the results observed in E-tivity 1 enabled evaluation of the engagement and motivation from the student perspective. It was clear that the time required for the e-tivity was the main issue limiting their engagement. Therefore, E-tivity 2 was designed in a three-layer format, where the first layer was the minimum requirement, and the following two layers were optional. This design was in response to what has been seen in the previous section about learners having two possible types of goal, namely the “mastery” goal and the “performance” goal (Berger and Archer, 2018). Moreover, E-tivity 2 was substituted for a two-hour workshop, and the time required for its completion has been estimated as less than two hours. Therefore, there was no extra time required to do this e-tivity.

Overall the three layers of E-tivity 2 reflected Bloom’s taxonomy (Bloom, 1973, See Figure 1). Students were first requested to review the learning material and summarise it in a mind map (Knowledge and Comprehension) “L1”. The next two optional layers required students to apply the mind map content in order to analyse a company of their choice “L2”, and eventually to synthesise and evaluate the Customer Journey “L3”. These three layers thereby mirrored the main phases of AS1.



L1

L2

L3

Figure 1: Bloom’s Taxonomy

The opportunity to submit even a minimum amount of work was intended to encourage students to do at least some steps towards AS1, and to avoid them falling into the procrastination loop, indicated the Self-Regulation theory (Zimmerman, 2002). Another advantage was the opportunity to receive tutor feedback to scaffold their learning. Indeed, further scaffolding is provided by students having the opportunity to emulate and be supported through an example of what is required in the assessment. The aim was to create connections between their pre-existing knowledge and skills with new learning, to contextualize their new knowledge and therefore develop metacognition (Walqui, 2006).

The result of this attempt to facilitate student engagement was not very satisfactory, both in terms of the number and quality of submissions (See Table 2). It may be that E-tivity 2 was ignored as it occurred in week eight, a busy study period of the term, when students were preparing summative assessments for other modules. This underlines the impact of the external environment and the learning context (Strudwick, et al. 2017).

|  |  |
| --- | --- |
| **E-tivity 2 – week 8** |  |
| No. of students who submitted: | 6 out of 28 |
| % of students who submitted: | 21.4% |
| Average quality of submissions: | 7.4 (on a scale for 5 to 10 where 5 is very poor and 10 is excellent) |

Table 2: Number and quality of submissions to E-tivity 2

***E-tivity in Term 2***Term 2 of the module focuses on a Live Client group project (PJ1), where students apply what they learnt in Term 1 to a real case, by interacting with a real client, and engaging with tutor support in planned workshops. E-tivity 3 came in week 20, and was directly related to the group task, contributing to PJ1 and aligned to the learning outcomes.

Students had to act as consultants for the Live Client and select one out of four possible approaches, to support the client in business growth and strategy development. The four possible consulting approaches were in line with Kolb’s Learning Styles (Kolb, 1984) as shown in Figure 2:

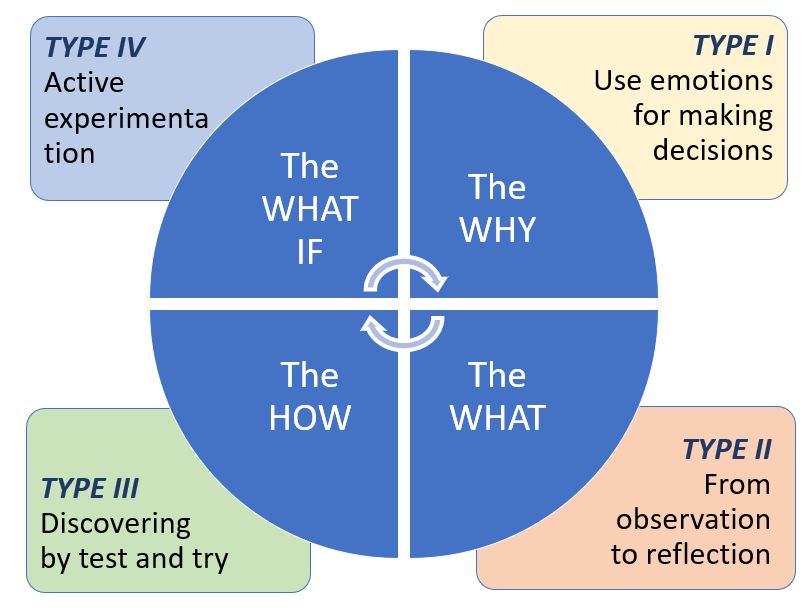
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Figure 2: Kolb’s Learning Styles

In addition to the choice of consulting approach, E-tivity 3 gave students a further choice in

depth of execution, taking into consideration Bloom’s taxonomy (Bloom, 1956). Indeed, each option had three specific questions that were related to Bloom’s taxonomy:

***| recall/identify | analyse/apply, | evaluate/create |***

The idea underpinning the creation of a three-dimensional approach that combines Kolb’s cycle (Kolb, 1984) and depth of execution, with Bloom’s taxonomy (Bloom, 1956), is rooted in Printrich’s (1994) Motivated Behaviours model that considers three factors:

* choice,
* level of activity and
* persistence.

Indeed, the principle underpinning the design of this model was that if students can choose their optimal entry point into the activity, they should be facilitated to build self-confidence and enjoyment, as considered in the autotelic theory (Csikszentmihalyi, 1990), by creating a ‘flow’ condition, gratification and intrinsic motivation. Indeed, autotelic individuals appear to find flow experiences best when they are goal-oriented with medium-difficulty tasks when skills and challenge are properly balanced. They base motivation on hope instead of fear, since the goal should be associated with a positive feeling. This conforms to a certain degree within Covington and Roberts’ model (1994), as those who are motivated by fear of failure tend to avoid tasks. Eventually flow is facilitated by internally-motivated activity, like curiosity, fun, a need to explore the possibilities. This contrasts with operating according to an internalized standard of excellence like competing with others or yourself, or setting performance-oriented goals (Berger and Archer, 2018). Hence, the proposed 3D model is an attempt to lower the barriers and facilitate the beginning of the student- engagement process, making it accessible and bespoke, a process that can be considered a motivational design (Simons et al. 2000).

Furthermore, Barnes *et al (*2008) argued that students have different learning styles and to facilitate their motivation it is relevant to adapt to their styles (Tomlinson, 1996), the argument being that there is a relationship between learning style and student enjoyment and therefore participation (Simpson and Du, 2004). According to Barnes (2004), referring to the Kolb’s learning Inventory, 64% of all students are Divergers (Type I), while 32% are Assimilators (Type II) and the remaining 2% are Accommodators (Type IV) and Convergers (Type III) and 4% are a combination of all four styles.

The applicative and pragmatic nature of this e-tivity shows results that contradict Barnes’ conclusions, as shown in the chart below (Figure 3) with reference to this module’s students. Indeed, the majority of students (65%) chose option 4 (Type IV Accommodators) and only 14% chose Type I Divergers.

Figure 3: Kolb’s learning inventory

With the limitation of a single test and of a small cohort size, the application of the 3D model to E-tivity 3 has been encouraging (See Table 3). It seems to have revitalised students’ engagement and provided positive results, by allowing students to engage at the level they felt adequate, and to take responsibility for their learning. Indeed, the outcomes of this e-tivity suggest that simulations and real situation scenarios are good choices for Accommodators (Type IV), and that analysing factors and their impact on the future is good for Assimilators (Type II) (Andrade, 2007).

|  |  |
| --- | --- |
| **E-tivity 3 – week 20** |  |
| No. of students who submitted | 14 out of 28 |
| % of students who submitted: | 50% |
| Average quality of submissions: | 7.5 (on a scale from 5 to 10 where 5 is very poor and 10 is excellent) |

Table 3: Number and quality of submissions to E-tivity 3

**Peer evaluation**

To assess the effectiveness and the results of the three e-tivities, and the potential improvement related to the application of the 3D model, a peer evaluation of the activity was arranged. The external had access to the NILE site and statistics and to the communications with students in the form of both announcements and the e-tivity instructions. A meeting was set to clarify the design of the course and storyboard as well as the learning outcomes. The external confirmed the correctness of the communication to the students and raised some concerns over the amount of submissions, in particular for E-tivity 2.

Furthermore the judgement was that the e-tivities had been properly communicated and effectively explained, through multichannel communication, reaching each student through NILE announcements, emails and in-class communication. The communication was clear and comprehensive including all necessary details about the importance and advantages of doing the e-tivities, and that the submission deadlines were fair. The explanation of the e-tivities was judged to be well structured and comprehensive for pre and post activities, as well as reflection and peer-review. The evaluation highlighted the value of using the E-tivity template providing a common framework for all students, guiding their learning in line with the learning material and proposed videos.

**Further evaluation**

The application of a “3D” model that combines Kolb’s learning cycle and styles (Kolb, 2005) with Bloom’s taxonomy (Bloom, 1956), to enhance student motivation to engage in formative assessment, will be further tested with different cohorts to examine its validity. Nevertheless, the progressive adoption of this idea to the CRM module e-tivities, can be considered a small-scale experiment.

To make a comprehensive evaluation of the impact of this approach on the students, a small scale of evaluation is not enough. It was important to also gather students’ perspectives about their learning experience, collected through end of module reflections, with the aim to evaluate the effectiveness of the adopted engagement and motivation models and the e-tivities.

The exploration of students’ reflections was divided into two parts. The first part was based on four questions concerning student perceptions of the e-tivities in terms of clarity, time requirement and usefulness. The four questions were:

*A1. Communication and deadline were clear, timely and effective.  
A2. Clarity of the activity was satisfactory.  
A3. Time to be allocated was fair.  
A4. Perceived usefulness for improving my learning and get feedback scaffolding towards Assessments.*

The answers range was from 0 to 7 where: 0 = low/ I totally disagree and 7 = high/fully agree.  
100% of the students replied to all the four questions and the results are shown in Figure 4.

Figure 4: Students’ responses to the e-tivities

It might be surprising that, given the level of completion of the three e-tivities, that the average response was 43%, therefore principally agreeing a positive opinion in terms of usefulness and fairness (see A4 in Figure 4).

The explanation for this discrepancy might be that the reflections were collected at the end of the last assessment, and therefore at a time when students are in a position to reflect on their performance, and perhaps regret missed opportunities.

The second part of the evaluation was based on open-ended questions, and students’ answers confirm points from literature and educational theory, highlighting the importance of considering the extended and multifaced components of individual characteristics and environment. The key concepts in Figure 5, are taken from the students’ answers and support the academic arguments on engagement and motivation analysed in this work.

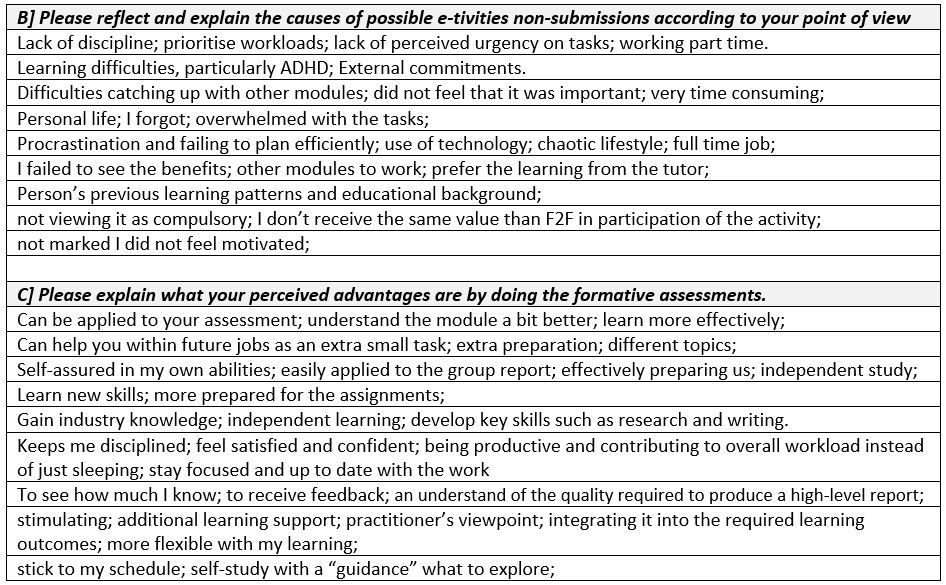


Figure 5: Students’ responses to open questions

**Recommendations**The fact that students face multiple challenges, related to academic, personal and social environments, has highlighted the importance of focusing not only on engagement and motivation but more widely on student self-regulation processes. Indeed, self-regulation involves three relevant processes: behavioural, motivational and self-reflective. As a consequence, self-regulation has implications for learning methods and time management, as well as the ability to monitor performance and metacognition (Zimmermann, 2015).

1. A first recommendation can be for closer cooperation between lecturers and personal academic tutors (PATs) in order to support students at each phase of the learning process, and keep track of vital aspects that make a difference to student learning and performance. This can be achieved by arranging periodic PT and tutor meetings to provide an overview of the main aspects of each student, seen from different perspectives. Starting from understanding and enabling the relevant students’ value-orientations, namely to establish the different reasons for student engagement in the tasks (Eccles, 2007), to support student goal-setting to enhance performance and commitment (Locke and Latham, 2013) and to facilitate student self-efficacy, namely their ability to evaluate their skills to successfully complete specific tasks (Bandura, 2018).

The third e-tivity of the CRM module, as a first application of the 3D model, has provided an encouraging start, supporting the idea that student engagement may be improved through flexibility and freedom to choose and co-design an activity. For some of them, this might have been the first step towards a motivated behaviour, by enabling a new image of themselves in the future and therefore supporting self-expectations and motivation (Oyserman *et al.*, 2015).

1. A second recommendation can be towards transformation of e-tivities in line with simulation and gamification theory (Kapp, 2017). This should increase the flexibility to actively engage students with a wider view of learning topics, and provide experience of co-creation of learning activities. The expected outcome may be that students will explore a larger number of topics at different levels of complexity, with more engagement and increased performance at a higher frequency. This would be beneficial since both student reflections and literature studies of time management show that little time is spent by students on planning long-term activities and prioritising their importance (Zimmerman *et al.,* 1996).
2. A specific improvement in this respect, would be to increase the number of e-tivities and to reduce their size and time required. This would create a road-map to support time management and planning as well as a proper study balance. This approach of smaller and more frequent e-tivities, would also allow full development of the 3D model by giving the opportunity to all the students to explore all the four steps of Kolb’s cycle. Students would be able to choose which of the four entry points to start with, according to their confidence (Concrete Experience, Reflection, Abstract Conceptualisation, Active Experimentation), and then improve their knowledge and skills along the others.

If this journey is explicitly related to a cohort score system, like in a game, some fair competition might enhance student engagement. Indeed, student self-worth theory underlines the need to maintain a positive self-image of their abilities (Covington, 2017; 1984) and, according to Affective Load theory (James and Nahl, 1986, cited in Fisher, 2005, p.39) all information behaviour is related to affective states that support the goals and motivation needed for the cognitive activity.

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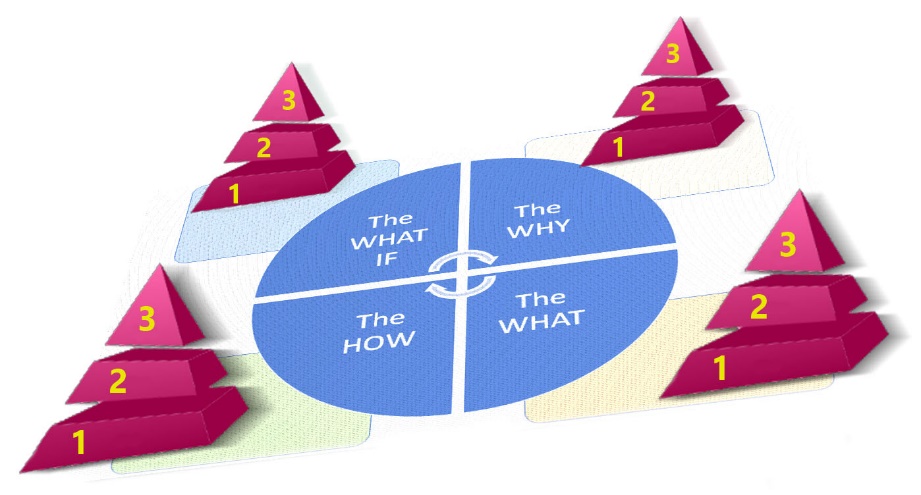
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**Appendix 1: Four options and three levels of depth offered in E-tivity 3 within the CRM module**

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|  |
| --- |
| **Option 1] The WHY: Use emotions for making decisions** Decide what you feel is the most critical challenge (Threat or Opportunity) for the Live Client, and which is the CRM framework (among all the ones that are correlated to the various parts of the CRM Value Chain) that can best address this most critical challenge.  *Use the following steps (maximum 500 words, citations are not mandatory):* 1) Identify the challenge and recall the framework  Please briefly explain both the challenge and why you have chosen that specific framework. 2) Analyse the situation (regarding the identified challenge) through the framework. 3) Evaluate why the selected framework can help to solve the issue or to take advantage of the opportunity.  **Option 2] The WHAT: From observation to reflection** Analyse and sort Live Client Issues and evaluate pros & cons, then define what you would do by observing the actual client and industry context.  *Use the following steps (maximum 500 words, citations are not mandatory):* 1) Recall the main aspects of the context (focus on both Opportunities and Threats and other aspects you may have observed as relevant). 2) Analyse the pros. and cons. of the aspects you have identified in point 1. 3) Create a strategy and tactical aspects to solve or improve the identified aspects, please specify why they would work well.  **Option 3] The HOW: Discovering by test and try** How can Live Client bat their competitors through Innovation? Please think out of the box  *Use the following steps (maximum 500 words, citations are not mandatory):* 1) Overall situation, be a good investigator and test more tracks/roots. 2) Apply the CRM Framework in an innovative way. Where can innovation benefit and how? 3) For one of the ideas or solutions you have identified, evaluate the possibilities of success and the related risks that Live Client may face by adopting this innovative approach.  **Option 4] The WHAT IF: Active experimentation** If you were Sean (Live Client CEO) and you had to improve both the existing and new Customers Experience CX…  *Use the following steps (maximum 500 words, citations are not mandatory):* 1) What would you do? 2) What could be the positive consequences of your actions in point 1 and the related risks? 3) Is there any creative way to meet this request that is outside (or different form) your actual CRM knowledge and perspective? |

### **Appendix 2: CRM module students’ reflections form**

**A] E-tivities: reason for submitting/non-submitting.**   
Rate range: [0 = low/ I totally disagree -------------------- 7 = high/fully agree]

A1. Communication and deadline were clear, timely and effective   
Range [ 0 -------------7], your value: \_\_\_\_\_\_\_

A2. Clarity of the activity was satisfactory   
Range [ 0 -------------7], your value: \_\_\_\_\_\_\_

A3. Time to be allocated was fair, considering that it was substituting one class and the relevant self-directed study time   
Range [ 0 -------------7], your value: \_\_\_\_\_\_\_

A4. Perceived usefulness for improving my learning and get feedback scaffolding towards Assessments  
Range [ 0 -------------7], your value: \_\_\_\_\_\_\_

A5. What could have been done better for you in terms of communication and execution?

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**B]** Please reflect and explain the causes of possible E-tivities non-submissions according to your point of view**.** Suggested topics to explore:

* Personal factors (please specify) related to you as person/student, any issue or difficulty etc …,
* External factors (please specify) related to causes that are out of your control but serious enough to catch your attention and time,
* Module related factors (please specify) related to the module, timing, contents, difficulty etc.,
* Other factors (please specify) please feel free to say how thing may have been unfavourable.

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**C] If you submitted any e-tivity:**Please explain what your perceived advantages are by doing the formative assessments.

Personal factors (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Learning factors (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Other factors (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Case study 5: Teaching Microeconomics: challenges, tips and techniques to build confidence and decrease anxiety regarding mathematics within diverse student groups

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**Statement of problem**

Several difficulties have to be addressed in delivering the Microeconomics module in which most of the students enrolled on the course come from the interdisciplinary studies, and have never studied Economics or higher-level Mathematics. Only a very few have studied Economics at A-level, whilst all have little more than basic mathematical knowledge. Another difficulty is that the course material has to be covered in a short time frame, making it necessary to cover the basic economic theory rapidly in order to address Economics topics in the light of that discipline. Therefore, the challenge has been to build confidence and decrease anxiety regarding mathematics. Intermediate Microeconomics can pose particular problems because understanding mathematical concepts is key to success in this module. Thus, challenges arise in working with students having disparate mathematical knowledge and skills. Student attendance in this module also poses difficulties, possibly owing to the timing of the sessions, 3pm to 5pm on a Friday, at the ‘dead end’ of the week, and the fact that for most students this is their only commitment on that day, thus posing serious drains on student motivation. This case study addresses the challenges facing me in delivering this Intermediate Microeconomics module ensuring appropriate mathematical content for second year students.

**Literature review**

Mathematics has been identified as having central importance to all aspects of society (Martin et al., 2012), and as being an integral part of the Economics discipline in higher education (Dawson, 2014). In higher education (HE) attention has been paid to the development of economics modules to integrate quantitative skills into core modules within the undergraduate curriculum. However, concern has been raised about the level of student preparedness for the mathematical content not only in Economics courses but also in other disciplines (Dawson, 2014). Mallik and Lodewijks (2010) have highlighted students’ mathematical deficiencies as an essential driver for student drop-out rates from Economics courses. The discrepancies in learners’ levels of knowledge/understanding, together with their disparate backgrounds and, consequently, their varying needs, must be taken into account in designing and delivering such courses. An investigation into the problem to identify ways not only to establish common ground among learners but also to enable students to acquire a ‘feel’ for economics, rather than a fear of the mathematical content; in other words, to facilitate and enhance student engagement with mathematics (Arnold & Straten, 2012) is needed.

Engaging students is widely recognised as a critical issue in improving educational learning outcomes (Lawson & Lawson, 2013; Kahu & Nelson, 2017). However, the term ‘engagement’ is used in different ways in various contexts, since aspects of individual student engagement have not yet been fully elucidated (Lawson & Lawson, 2013). Three types of engagement: behavioural, emotional and cognitive, are outlined in the approach suggested by Fredricks et al. (2004) to engage student learning. Unfortunately, a growing number of studies focusing on student engagement confirms the decline in student participation, particularly in Mathematics (Martin et al., 2012).

A significant issue amongst the students of all age ranges is disengagement with mathematics in the educational courses in many western countries (McPhan et al., 2008; Tytler et al., 2008). According to Byram (2018) the HE situation becomes more diverse, research in academic motivation identifies that the problem is related to cross cultural interactivity, and more specifically to team work.

Welikala and Watkins (2008) recognise that this can be due to conflict in cultural scripts for learning. Different teaching strategies are referred by several cultural and social aspects. In connection with students’ learning experience from their childhood, a cultural script for learning can be seen as a road map which then drives how students approach learning.

Across different cultures, there are different educational practices which have led to the emergence of several cultural scripts, with conflicting ways of understanding how knowledge is built and what the role of the learner is (Welikala & Watkins, 2008). These differences have significant impact on the process of learning and the students’ experience in any topic. But, based on the nature of mathematics as a parallel but non-linguistic signalling and processing system, these differing learning approaches can cause various difficulties for students within Mathematics courses and Economics at HE level.

As an example, ‘talk for learning’ is the connection between education and cultural expectations of how learners and teachers expect each other to contribute to the acquisition of knowledge. From the Chinese perspective the teacher is considered in the literature as a role model for students. As a result, the teacher is expected to control the communication in the classroom and the students should respect and follow the teacher’s instruction (Tan, 2015). However, the educational approach in the western countries has moved towards more active engagement of students in the classroom, where developing learners’ interpersonal skills is considered an important aim (van Uden et al., 2014). Eboka (2019) showed that these cultural differences can have a knock-on effect on other areas within activities for learning. Within academic literature cultural differences are considered to raise concerns for student engagement and collaboration across cultures. Therefore, there is the need for the development of international competence hence cultural diversity.

Given the stated importance of Mathematics, not only as an academic subject, but particularly as an integral part of HE Economics courses (Brasfield et al., 1992; Dawson, 2014), remedial action is urgently needed. Various factors contribute to the decline, including if teaching practice pays scant attention to student motivation and engagement (Turner et al., 2011). Much literature has been published on the importance of adopting instructional strategies for boosting student engagement in mathematics classrooms (Becker & Watts, 1996). These studies have suggested many strategies for enhancing student engagement, including interactive classroom activities and focusing on tasks requiring students to apply mathematical knowledge to concrete problems and situations (Pianta et al., 2012; Bobis et al., 2016). Several studies examine specific aspects of quantitative coursework within the economics curriculum (von Allmen, 1996). For example, Butler et al. (1998) found that additional calculus workshops were significant in improving student performance in Intermediate Microeconomics. Unsurprisingly, studies showed that students with stronger mathematics backgrounds achieved better outcomes in their Economics major (Siegfried et al., 1991; Cohn et al., 1998; Ballard & Johnson, 2004). This accords with studies that have examined the various factors that influence student performance in Economics degrees (e.g. Arnold & Straten, 2012).

According to Licorish et al. (2018) the game-play tool Kahoot improves the quality of student learning mainly through its impact on classroom dynamics, student motivation and engagement, thus generating a better learning experience. The findings indicate that educational games using appropriate content increase engagement, whilst timely feedback reinforces motivation and helps reduce distractions as compared to conventional classroom approaches.

Hussein (2017) investigated reasons why Economics is considered to be a very dry and difficult subject to understand. He finds that, especially if Economics is taken as a subsidiary subject, students feel it as an additional burden rather than a useful adjunct. Furthermore, with the recent increase in demand for HE, institutions have had to raise the lecturer/student ratio, thus increasing lecturers’ difficulties in responding to discrepancies in students’ basic skills. Economics as a subject aims to improve analytical skills and develop critical thinking, communication and systemic skills, but for this aim to be achieved there has to be sufficient adaptability on the part of the lecturer to meet individual student needs.

Neymotin (2014) explored the perhaps obvious topic of how relating mathematical knowledge to the solving of business problems will hold greater interest for Business Students in comparison to presenting mathematical concepts in isolation. The presentation of ideas in a way that is disconnected from the motivational context for students, as is usually the case in economic lectures (Lafontaine, 2006) is not highly productive. Business students are less likely to examine the beauty of mathematical formulae per se, but will be more interested in learning how mathematical formulae can be applied for business success (Lafontaine, 2006). For example, if an explanation of derivatives is first presented within the context of the intuitive underlying motivation and then moves to discussing ways of applying them (e.g. the point-elasticity concept), students will more likely be encouraged to learn and thus have a better understanding of the correct measures for pricing in their business. Providing clear and common-sense explanations will motivate students far better to learn the complicated mathematical concepts that are typically taught in the Economics class of an MBA course (Lafontaine, 2006; Neymotin, 2014).

**The intervention and peer observation**

My chosen modules follow a similar teaching philosophy and adhere strictly to the principles of activity-based learning (ABL). The proceedings were observed by a third party in order to offer critical and constructive discussion regarding student engagement with classroom materials and online activities, the levels of interactivity, and the relevance of online activities to the assessment and student participation. The observations (one per module) took place on 20th December 2019 and were conducted by a colleague, AH, chosen on the basis of his experience of teaching the modules (particularly with mathematical content) at different universities. The peer observation assisted me in a number of ways to improve student engagement with in-class discussions and activities, and to improve the relevance of online activities to module assessment.

AH observed my Level-5 workshop holding circa 20 students. I asked AH to observe the level of student interaction with the worksheet and in-class discussions. I also asked him to monitor the apparent levels of ease and confidence shown by students in asking questions in the drop-in sessions, to enable them to derive maximum benefit and improve their performance.

The purpose was to support best practice by building awareness of:

* the impact of my style of delivery on the quality of teaching Microeconomics, and
* how worksheet, IT and drop-in sessions can help students understand the modules more effectively.

The observer attended two hours of a face-to-face drop-in session during week 10. Before AH attended the session, we had a meeting where I gave a briefing about the activity planned for that week and an overview of what the students had been doing previously. We discussed the materials available on the University’s NILE site. Bearing in mind the focus of the observations, the observer had the opportunity to follow the activities independently and to observe the students during the face-to-face session.

Taking into consideration the solutions and suggestions offered by the academic literature regarding the teaching of Microeconomics, approaches to learning involving worksheets, drop-in sessions and online activities were introduced.

***First approach: Worksheets***

Choo et al (2011) show how worksheets provide hints regarding the steps students should take in solving mathematical problems. Students can share and contribute to the process worksheet while working on the questions, thus helping them monitor their progress during the problem-solving process. Belland et al. (2008) describe worksheets as a ‘scaffold’ affording support to learners through paper-based cognitive tools assisting learners in the task of problem-solving. Process worksheets acts as structural guides in guiding student instruction through activities (van Merriënboer, 1997). I contacted the publishers of the Microeconomics textbooks to request whatever associated teaching aids they had produced. They provided worksheets for certain topics. These I edited and adapted for the particular requirements of my students.

I uploaded each worksheet online one week before the appropriate class session. Each worksheet contains questions/tasks at three levels of difficulty (easy, medium and hard). The worksheet poses both theoretical questions and applications of theory (mathematics and analysis). I added initial information regarding the graphs (for example, designation of horizontal and vertical axes) and directions to complete the graphs with the remaining information. The students had the option to submit their work by email. Some students preferred to discuss the questions during class, so I allocated 20 minutes for discussion of critical questions. I found this very helpful as the students were able to identify the areas in which they wanted to improve; they were also stimulated to ask good questions particularly regarding the application of theory.

Furthermore, I asked for student feedback every week or two weeks. Their responses included their requests for additional mathematical support. Accordingly, I produced 20 PowerPoint slides showing the application of mathematics in economic theory. These I presented in two one-hour sessions, along with handout sheets showing calculus differentiations with example questions for them to attempt. For example: ‘What does the marginal rate of transformation mean and why does it change as we move from left to right along the feasible frontier?’ The worksheet (Figure 1) acted as the medium for joining up theoretical and practical aspects.

An example of a worksheet.

An example of a worksheet

Figure 1: An example of a worksheet

***Second approach: technology and online activities***

Licorish et al. (2018) suggest that educational games are very useful in minimizing distractions and improving the quality of the teaching and learning process. Using gamification tools such as Kahoot provides students with timely feedback as well as enjoyment, whilst enabling students to engage and work creatively with the content. There are additional contemporary games that can be used in the teaching/learning process such as iClicker, Poll Everywhere, and Socrative; these sorts of gamification can play an important role in increasing student engagement (Wang, 2015).

Mu and Paparas (2015) studied the advantages of clickers and mobile technology in teaching Economics to non-economists. They found that in the 21st Century students lack interest in their subjects and therefore engage less with them. However, they respond well to the mobile application developments such as Kahoot and clickers which grab student attention and raise their interest in subjects such as economics, leading to increased engagement in learning. Also, they offer a brief guide on how to use Kahoot. In addition, they measured the effectiveness and success of Kahoot within teaching practice by using a student survey. The survey shows two important points; firstly, the technology has a tremendous positive effect on education. Secondly, Kahoot has the power to transform the classroom into an interactive learning environment.

We all found Kahoot to be a very influential tool for engagement, learning experience, and motivation. In addition, Kahoot creates an interactive classroom. I decided to use Kahoot as a teaching platform. I asked the students to prepare multiple choice questions drawing on the materials we had covered, then I uploaded them in Kahoot. To further support this gamification approach, I offered a prize for the student who performed best in the Kahoot or Socrative quizzes (prizes such as T-shirts with the ‘Best Economist’ logo). Kahoot can be used to review students' knowledge, for [formative assessment](https://en.wikipedia.org/wiki/Formative_assessment), or as a break from traditional classroom activities. These gamification tools are very helpful in identifying the areas in which students struggle. In the example below (Figure 2), out of the ten questions only two students answered questions 8 and 10 correctly. It was clear that students found these two areas particularly difficult.

Two Kahoot questions.

Two Kahoot questions.

Figure 2: Two Kahoot questions

In response to the results from Kahoot, I provided students with additional examples of the concepts of risk-dominant strategy and self-regarding preferences.

***Third approach: Drop-in sessions***

Drop-in sessions are a means of providing extra support for individuals in need. They are also scheduled for certain cohorts and modules as a follow-up to face to face contact hours in class, rather than main sessions open to all (Funnell, 2015). Various institutions have provided regular drop-in sessions to help students develop their skills, particularly in mathematics and writing. To date there has been limited analysis of the outcomes of this approach, showing few proven advantages, and even some negative findings regarding its effectiveness. Nevertheless, a trial Information Literacy (IL) project was launched at QMUL Medical and Dental Libraries in 2015. Similar initiatives were adopted by Bath and Wolverhampton universities in the same year.

One demonstrated advantage of drop-in sessions is that they provide a specific number of one-to-one teaching sessions (Cooper, 2010), and students clearly see advantages in one to one sessions. This method is not feasible for large groups or if more structured teaching is required. However, the drop-in method allows staff to deal with student enquiries simultaneously and is less time-intensive than having to see individuals in separate appointments. Funnell (2015) warned that, despite the advantages of drop-in sessions, there are certain challenges. Firstly, timing is very important to the success of this method, as it is impossible to set a time which is suitable for everyone. Secondly, it is very important to ensure sufficient and appropriate materials are available to maintain consistency in session availability and service. Session cancellations can negatively impact on the perceptions of the service. Ideally, two staff members are required. However, owing to staff leave and other commitments, it is difficult to provide more than one staff member for every session and a single staff member could manage if there were not too many participants. There are associated problems of publicity levels and eligibility criteria for drop-ins, as over-popularity could have negative impacts on success due to staff capacity.

I used the drop-in sessions as a method of intervention since some students felt more comfortable in this environment and wanted to request additional support in certain parts of the modules. Generally, no student had to wait more than about 15 minutes before receiving some initial advice. If the session was busy, I tried to give extra support by scheduling a separate one-to-one meeting and asking them to work on their own whilst I started with the next student. One-to-one sessions were offered to individuals based on need.

I announced the first drop-in session ten days before the scheduled date and asked students for questions or advice relating to issues surrounding the module. I wished to give students the opportunity to talk to me to have their individual questions answered. I also prepared materials on the most important mathematics topics that might help them. I was delighted when five of the students showed up, as they had already written their questions. At the end of the session, I received very good feedback and was asked to run further sessions. They stated that they found this to be a great opportunity to receive quick and effective advice. The drop-in sessions are now intended to be tailored around their individual learning needs.

However, I have found that drop-in sessions are suitable for brief enquiries only, particularly if there are a number of students waiting. I have told students that if they need support with more complex issues or enquiries, they should contact me to make an appointment for a longer face-to-face meeting. I always remind them about details of the facilities that they can access in the Library, such as those offering specific drop-in support to students in developing their numerical and statistical abilities. The Learning Development team at the University offers drop-in sessions available to assist students not only in math and statistics but also in academic writing. Writing development opportunities are widely available especially to those who study social sciences. Also, sessions can be individual or alongside other students in a group. Drop-in facilities are accessible to all students but predominantly to those studying at entry level 1 and 2. These can be used to help with problems in the classroom or as a study base to prepare for examinations or tests.

**Evaluation**

Education is described as a journey of learning (Pintrich, 2003). There are procedures that can predict, design and shape the education process for the student to enable and help them to achieve academic success but it is unclear how the journey will be for individual students and what the success will be. Lecturer and students together were involved in this case study to develop approaches to teaching the Microeconomics modules. Indeed, during the group discussions, one person suggested renaming the mathematics element ‘numerical reasoning’, as that would align with their employability skills and make students familiar with the term, which they would definitely find relevant when they begin applying for graduate roles.

One of the obstacles I face is the amount of material needing to be covered in a short time frame. I would dearly wish to cover many important topics that make our disciplines so interesting, and sometimes it is painful to delete a slide that may provide useful future material, but I have learnt from the discussions that I have to face reality. We are dealing with the “swipe” generation, persons who can collect multiple information at raw and basic levels from different visual sources with very limited reading (Woodward, 2008).

For my students using the fast-feedback method enhanced communication. This approach involves asking students to write a note on worksheets or other paper to give details of how they are coping, what changes they might like to see, and items they would like to spend more time on in class. In this way students are kept involved with course evaluation, and it helps me to know what material may still need additional explanation.

Many students found worksheets to be effective in support their efforts to engage during class. Worksheets used in class can also help direct students’ learning outside the classroom. Gallagher et al (1995) showed how the use of a ‘need‐to‐know’ worksheet can be very helpful in bringing students together to collaborate in identifying and noting on the sheet learning issues or particular areas of difficulty.

Two challenges of the intervention in my case were the time framework and ensuring that students have achieved the planned learning outcomes. I have plans to do similar interventions in two different topics that I believe pose difficulties to students. However, I am confident that most students are able to explain the different concepts of the worksheet discussion points, and to apply them to various real-world issues.

Overall the sessions appeared to be enjoyable according to feedback from the observer and students, and they helped the students to be more proactive, particularly encouraging shy students to engage in the classroom sessions. Also, the observer spotted some additional good points including that the session started on time, the class was well-prepared, the teacher revised the last session at the beginning and distributed the exercise sheet, and that the teaching was carried out in an interactive manner at an appropriate speed. In addition, the observer commented on the advantage of a small class in which I was able to effectively pay attention to individual students. Importantly, students engaged well in the class.

Accordingly, I plan to make additional improvements through holding similar sessions in the second term to ensure that the learning objectives are met.

To sum up, the interventions provided a pedagogic strategy for understanding how to increase important exposure to numerical skills, using small group work, worksheets, and directly linking course content to assessment. The findings highlight clear benefits to be gained from exploring how we develop quantitative skills right at the beginning of a programme, and then during the term. Positive feedback is now coming from students in the form of class discussions, improved attendance, higher participation in optional projects and positive student comments indicating progress in this area.

**Recommendations**

This work has attempted to tackle the challenges and issues surrounding my teaching of Intermediate Microeconomics for Level 5 undergraduate students. The aim is to provide strategies to teaching Microeconomics that can be helpful to other lecturers facing similar challenges by proposing recommendations and showing how my intervention has helped and enhanced student engagement.

* There is the need for the provision of a preliminary pre-session Economics module before the start of the term for students who might need to improve their numerical and quantitative skills. This session can also cater for their learning needs not only in the Microeconomics module but in other courses as well.
* Gamification fosters student engagement and motivation, so I could bring more diversity to the range of online activities by incorporating tools such as PollEverywhere and Evercate since these tools enable students to create content and exchange knowledge with others in the class, and hence fosters a sense of community.
* Consideration should be given to better collaboration with academic support services such as Learning Development to embed study skills into the curriculum. This will develop not only numerical skills but other study skills as well.
* I will run a Bloomberg session next year, not only for postgraduates but also for undergraduate students (working with statistical data) that will help students build their personal brand as part of the employability skills and enhance student engagement and comprehension. Also, improve the credibility of microeconomic performance among students.
* There are some numerical tests on the Changemaker Hub portal that can help gauge the competence level of students at the start of the module. Teaching can then be tailored appropriately.

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# Case study 6: Reducing non-engagement through curriculum design and activities with diverse student cohorts: a case study from the Foundation Study Framework

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*Note.* As in Bunce et al. (2019), the term BAME (Black and Asian Minority Ethnic) is used in this case study because it is widely recognised to describe patterns of difference based on ethnicity in the UK. BAME includes people who identify as Black, Asian, Mixed/Multiple ethnic groups, or Other. I acknowledge that the term is problematic because it disguises diversity within the group.

**Statement of problem**

Student engagement can be particularly challenging and complicated for some students. Literature suggests a multitude of efforts to explain this disengagement or non-engagement, however they often ignore the student narrative and lived experience. I believe the classroom and the way in which we deliver materials can be incredibly empowering to students if we review and engage in conversations with students about module delivery and materials. By focusing on typical challenges facing our students, and the impact on their engagement, I designed some interventions to support learners in the classroom and on their modules. These interventions are guided by several avenues of research and earlier literature. Examples include research on the BAME awarding gap (Broecke & Nicholls, 2007; Higher Education Academy & Equality Challenge Unit, 2011; Stevenson, 2012); a rejection of the deficit model in education (Bunce et al., 2019; Stevenson, 2012); legitimation code theory stemming back to Bourdieu's cultural capital theory (Bernstein, 1977; 2000; Bourdieu, 1996; Lamont & Maton, 2008) and student assessment. The present study explores ways to reduce non-engagement through curriculum design and activities.

The study context is a Foundation Year (FY) programme. FY programmes are four-year programmes with the first year operating as a ‘foundation’ year, pitched at Level 3. On successful completion of that year, the student will progress onto their chosen degree programme. The core aims of the FY at the University of Northampton are to provide the best possible grounding to develop students’ key skills and core subject knowledge – building confidence and awareness to study within a university environment. The FY admits students with non-standard qualifications, often DEE or DD, with a reduced tuition fee in the first year. FY programmes can provide an incredibly effective pathway into higher education for non-traditional students, and for many of our students, this may be the only way of accessing entry to university. Earlier findings show that FY programmes are designed to prepare students for, and ease transition to, degree level study (OFS, 2019). In some contexts, FYs have an incredibly diverse student population, presenting issues relating to support (academic and pastoral), learning and teaching and student engagement. Annually, this particular FY has high numbers of BAME students (above 60%), with total numbers ranging from 150-250. Interestingly, there is also a higher percentage of BAME students withdrawing or not continuing their academic studies when compared to white students. In my experience, many of our BAME students leave university due to the financial circumstances and/or non-engagement and academic failure. Therefore, it is a priority to consider these reasons for non-engagement when considering the large BAME student populations.

This is typical of the sector. Anecdotally, as part of a national Foundation Year Network and research findings from Office for Students (OFS) (2019), FYs can experience high numbers of non-engaged students, with clusters of students who withdraw from their studies during or at the end of the FY. After teaching on a FY for over five years, there has been time to reflect on understanding student non-engagement and withdrawal and the actions and interventions that should be part of a FY programme to ensure these issues are targeted from the beginning of the academic year. This case study explores non-engagement on this particular FY programme, the reasons, and the outcomes of chosen interventions employed to enhance and promote student engagement. While this case study is heavily focused on a FY programme, it also offers lessons appropriate for level four programmes.

**Literature review**

There is now a strong body of literature focused on the BAME attainment gap (Broecke & Nicholls, 2007; Higher Education Academy & Equality Challenge Unit, 2011; Stevenson, 2012). From reviewing relevant literature, the discussion of inequality in higher education is clear but there is still little change and white students are still far more likely to convert their entry qualifications into a 2:1 or above compared to BAME students. It has been suggested that one way to narrow this gap is by taking a conscious effort to review the models used in universities and implement stronger infrastructural, curricular, and pastoral support. Aspects that have been found to contribute to the attainment gap are that BAME students may be coming into university from poorly performing schools and from lower socioeconomic groups which have been regularly linked with poor degree attainment (universities UK & National Union of Students, 2019), that their cultural learning styles are not appreciated (Shepherd, 2009), and questions asking whether university policies, pedagogic practice, curricular content, practice around assessment, support and marking are inclusive and fair (Hockings, 2010).

Recently, Universities UK and the National Union of Students (NUS) (2019) published a report on closing the student attainment gap. The report, with contributions from over 90 British universities and Student Unions suggests five steps which universities should employ to help improve and overcome the BAME attainment gap: stronger leadership; conversations about race and changing cultures; racially diverse and inclusive environments; evidence and analysing data on the attainment gap; and understanding what works. These steps are of relevance to the FY at the University of Northampton as student cohorts are on average 60-70% BAME each academic year, and there are attainment differences relating to ethnicity. Further to this, Bunce, et al. (2019) investigated the experiences of black and minority ethnic (BME) students in higher education. Their starting point for the investigation was that BAME students are less likely to gain a ‘good degree’ classification (e.g. a first or 2:1). Bunce et al. (2019) examined this awarding gap via focus groups with 17 BME students on health and social care subjects. The main aim was to gain perspective and student voice on their experience of learning and teaching whilst at university. The application of a self-determination theory was upheld in the research, which suggests student’s potential for learning, combined with wellbeing, can work in supportive environments where individual’s needs are met for relatedness, competence, and autonomy. Findings through thematic analysis showed the obstacles and barriers that the students faced in the following categories: relatedness, competence, and autonomy. Some of the key findings in Bunce et al.’s (2019) research highlight how BAME students may experience ‘otherness’ in universities, and view the academy as having a ‘lack of support’ and ‘mis-belonging’. Findings also suggest an ‘un-relatedness’ between themselves and the non-BME lecturers and peers, inside and outside of the classrooms. It was also reported that university can have a negative impact on students’ sense of identity and that students often feel pressurised into following dominant social norms to ‘fit into white society’ (Bunce et al., 2019).

One issue to acknowledge and reject in relation to the attainment/awarding gap is the ‘deficit model’ which, at times, is suggested as accounting for differences observed between students (Bunce et al., 2019; Stevenson, 2012). The deficit model of education is that the problem lies with the student or their backgrounds rather than with institutional factors (Stevenson, 2012). A Foundation Year Network conference in July 2019 challenged the deficit model across disciplines, with practitioners and academics in the field suggesting interventions and teaching methods to ensure all FY students develop the skills for university study and learn the ‘rules of the game’ (Bernstein, 1997; 2000).

Student engagement is often measured quantitatively and this does not account for students' experiences or their processes of learning. It is necessary to conduct deeper studies into teaching and focus on how students respond to our curriculum, teaching materials and delivery. Legitimation Code Theory (LCT) helps to explain access and success, offers a framework for understanding educational practices supported by social codes and offers a ‘conceptual toolkit’ rather than claims about the nature and purpose of education. In LCT, access is defined as the student acquisition of the curriculum code as can be evidenced through the production of legitimate texts (e.g. written assignments). Chen, Maton and Bennett (2011) focused on Australian universities and Chinese students’ struggles with teaching practices. Students enrolled with a ‘knowledge code’ but Australian universities appreciated a ‘knower code’, therefore student were reported as struggling and not achieving their potential. The students did not understand the ‘rules of the game.’ Chinese students in this context did not see individual experiences as legitimate knowledge and felt as though they were not being taught properly which resulted in ‘code clash’ (Lamont and Maton 2008) and students feeling abandoned, lost and unhappy.

Another useful and relevant example from Lamont and Maton (2008, 2010) used LCT to focus on roles of knowledge associated with different subjects at school. Code shifts in music can be seen in Figure 1 from knower, knowledge and then elite. In the context of a foundation year, students will begin university with a restricted code and may experience being an ‘illegitimate knower’ or the wrong kind of ‘knower.’ An example of this in the learning environment, is a failed assignment as the student has not yet understood the need to change to a different code when coming into university. Embedded into this could be the difference seen between A Level and BTEC students. Research exists suggesting that students from a BTEC background coming to university struggle. Low student self-esteem can also be due to earlier negative educational experiences and this can be characterised as a ‘relativist’ code. As a teacher, lecturer, and personal tutor at university, we want to develop the right kind of ‘knower’ for university and their degree programme. One way to promote the ‘rules of the game’ is by empowering students to uncover new knowledge, and for teaching staff to be explicit when delivering and teaching new knowledge. The aim is for students at graduation to have an ‘elite’ code. One example of transforming the classroom is by using LCT to help teach subject skills and knowledge ensuring that appropriate knowledge of the discipline at university is being taught.

Figure 1. ‘Rules of the game’ change without students being told explicitly

A further way to engage students with assignments is by strategies to ensure students focus on the process of creating assignments rather than just the product. Assessments at university could exercise the use of portfolios as these are reported as resulting in greater student engagement (McDonald & Borin, 2012) due to their ability to empower students (Ellison & Jones, 2019). Ellison and Jones (2019) report on a small research project in a British university with Law first year students on an undergraduate degree. The aim was to encourage and improve the submission and progression rate. The lecturers had noted an attainment gap associated with gender, age, and ethnicity. Through action research and a change in assessment from examinations to coursework, higher rates of pass grades were seen, and yet the attainment gap associated with gender, age and ethnicity persisted. These findings suggest that further work is needed to understand these differences and how a lecturer or module leader can improve the chances of engagement and achievement for all learners.

**The intervention(s)**

As suggested, there are several reasons why students may not engage at university, and rather than use a ‘deficit model’ to explain this I opted to review a set of activities that have been in place on the FY for two years. Table 1 details the activities used in the academic year of 2019-2020 across the year to assess whether they had an impact on student engagement and whether they managed to raise student’s confidence with activities and writing.

***Empathy Maps***

At the beginning of the academic year I utilised Empathy Maps to develop more understanding of the student’s needs and lived experiences. I previously used Empathy Maps when teaching hourly-paid on another module (FDN016: Investigation into your Subject Area 3 – Changemaking) several years earlier. Their use on that module was to explore ‘student food poverty’ and how students think, feel, see, hear, say, and do about that issue. Student feedback showed the effectiveness of this technique as a systematic way of representing how someone behaves and feels. Therefore, I believed the empathy map would be an effective tool in personal academic tutoring and provide students with a context to write about their own experiences and thoughts in higher education. From experience, students enrolled on the FY especially when at risk of failure (due to low attendance, engagement, and non-submission) often say they are ‘misunderstood’ and ‘not listened to.’ The empathy map enabled an open and frank discussion with the personal tutor after completion of the individual empathy map. Relating back to the previous literature, this method allowed the personal tutor to gather information on the learners’ previous educational experiences (knowing what code they currently had), and then curriculum and activities could be slightly adapted to accommodate for the students on the modules.

Peer observation of this activity was carried out and the observational process was used when collating all the groups notes from the empathy maps. Key items were flagged (ranging from background, family pressures, not finishing school, negative educational experiences, stigma and stereotype). One of the comments from the observer was on the challenge to accommodate such a vast range of needs in one classroom. The observer also suggested how the university support services could be integrated into the foundation classroom. These two points helped create the other interventions (especially the activities) and the role of ‘empowering the students’ to engage in discipline-specific academic writing and assignments in a safe and inclusive environment. Reflecting on the recent report from universities UK and NUS (2019), creating a racially diverse and inclusive environment is key for students to flourish especially if the larger university context is seen as ‘unwelcoming’.

|  |  |
| --- | --- |
| Intervention | Activities |
| Empathy maps with personal tutees  [Week 1/2] | * Use of an empathy maps with a group of personal tutees, individual reflecting on their experience coming to university * Responses are collated by the personal tutor. Recorded individually – met with each personal tutee and use their empathy aps to explore feelings of higher education * Collation of all empathy maps to create a group empathy map which is then shared with the personal tutee group – explored as a group to think about ways to support students within the university |
| Assessment workshops  [Weekly] | * Formative feedback * Prompt and timely feedback * Drafting – ‘dummy deadlines’ * Drafting paragraphs in class – tutor guides and helps providing comments in class to each student * Peer review sessions * Rework sessions to improve on draft * Student achievement gains * More engaged and willing to submit assignments on time * Helps time skills, organisation skills * Allows growth in student’s ideas and modes of expression |
| Assessment coaching sessions  [Closer to assignment and resit deadlines] | Sessions take place:   * 1 week before assignment is due [open to all students but at risk of failing students invited personally] * On the day of submission [open to all students but at risk of failing students invited personally] * One week before the resit submission [only students who have failed or not submitted the assignment are invited) |

Table 1. Interventions employed to help foster student engagement on the Foundation Year

***Assessment workshops***

As previously noted, the assignment submission rate on foundation modules has improved in recent years but is still of concern. To target non-submissions and to help build confidence with assignment writing at university – weekly assessment workshops were introduced on all FY modules in the Business, Education and Social Sciences cognate group (see Table 2 for the schedule). These provided opportunities for students to work on individual assignments, created a safe space for asking questions, gaining peer review of drafts and submitting and receiving formative feedback. The workshops were timetabled as part of the module, rather than an optional addition. Student feedback highlighted the importance of holding these workshops and students were becoming noticeably more autonomous with their assignments.

***Assessment coaching sessions***

The incorporation of assessment coaching sessions closer to assignment and resit deadlines was also powerful. Attendance was on average 12-20 for first-sit assignments and notably smaller for resit assignments. These sessions were often a mix of timetabled slots, whether in booked rooms or in the library (as a more informal setting). There were no extra materials created for these sessions but students came with prepared questions, and drafts. For first-sit assignments, the coaching sessions began with the room broken into four groups with stages of the assignments at each table (often written on paper placed in the centre of the table). I would create a collaborative environment where students would sit on the table where they needed support. As a small group, students would begin writing down some questions, and then I would rotate around the tables supporting the students. The collaborative space enabled students to feel empowered, and no student was judged on their earlier attendance or engagement. Evidence found that when students had attended an assessment coaching session, they submitted and passed the assignment due to the quality of work.

|  |  |
| --- | --- |
| Week | Session activities and student tasks |
| Week 1 | Assignment 1 briefing - deadlines, assignment briefs, setting up individual Padlet for reflective purposes, Introduce topics for assignments  Student task: find and download at least 1 journal article PDF to individual Padlet [key words, how easy to find, reflect] |
| Week 2 | Assignment learning outcomes and rubrics  (Academic librarians visit: NELSON, databases, google scholar)  Student task: reflect on academic librarian visit |
| Week 3 | AS1 draft feedback (peer review session)  Student task: reflect on peer review, and edit assignment ready for submission |
| Week 4 | Assignment 2 briefing - lit review and research proposal, create new Padlet  Student task: start timeline with targets |
| Week 5 | Drafting ideas using the Pomodoro technique (40 mins freewriting, break, repeated)  Student task: turn your freewriting into an assignment outline |
| Week 6 | Draft the literature review  Student task: are you meeting your targets? |
| Week 7 | Draft the research proposal  Student task: are you meeting your targets? |
| Week 8 | 1:1 assessment tutorial  Student task: reflect on AS1 feedback |
| Week 9 | Proof-reading and editing tools, submitting and finishing the module  Student task: check Padlet, target setting, reflection |

Table 2. Example of the weekly assessment workshops with session activities and student tasks.

Overall, the interventions fostered strong student engagement, with active student participation. Because of the intervention, engagement in classroom activities including the weekly personal tutoring co-working session was incredibly well-attended. The use of the empathy maps helped to establish a positive and nurturing working relationship between the personal tutor and students. Sharing of the group empathy map with collated responses also focused the group, enabling students to see similar thoughts, feelings, pains, and gains. Following the introduction of weekly assessment coaching sessions on the FY in Business, Education and Social Sciences, the assignment submission rates improved, on average, from 65% to 90% for a first-sit assignment in the first term. Introducing a choice of topics (e.g. power, socio economic status, protected characteristics) which students suggested also meant students were able to choose flexibly and connect to the chosen topic. Anecdotally, students felt more ‘empowered’ by the topics and students were adapting and understanding the ‘rules of the game.’

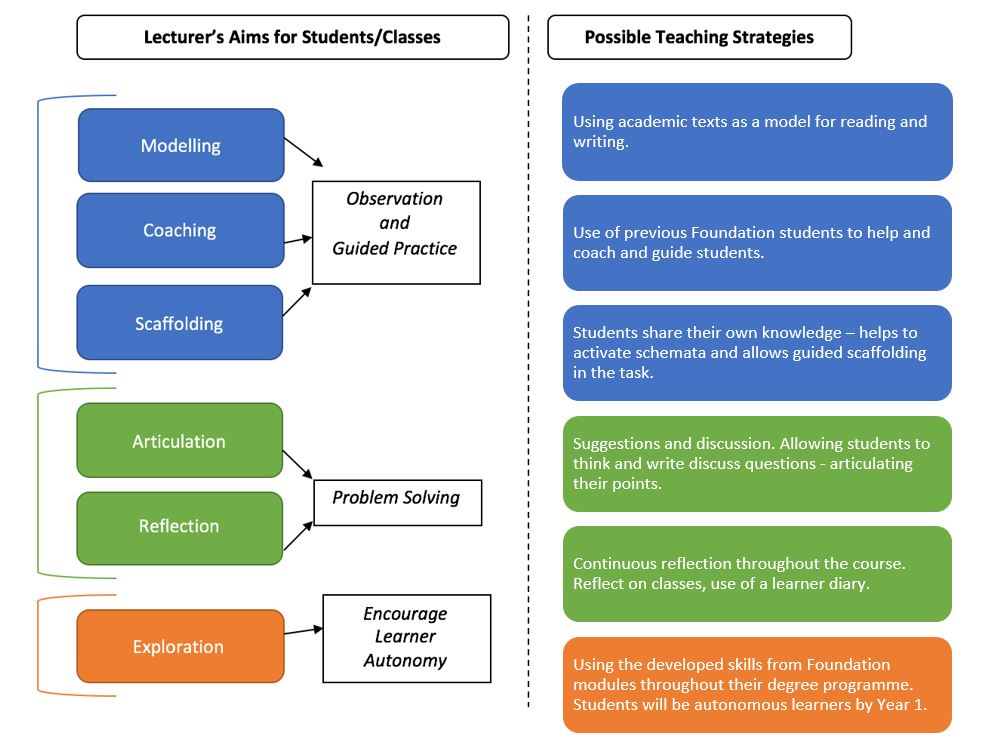
Reflecting on the interventions and the student engagement and performance, Figure 2 provides my personal understanding of the lecturers’ aim on a foundation year provision with the associate teaching activities. To further support student engagement, the lecturer used observation and guided practice in tasks and activities with an example provided after whole class feedback and discussion. Work on problem-solving in the classroom enabled students to be challenged and focused on assignment writing via an individual Padlet, continually reflecting on the process of completing the assignment from start to finish. Learner autonomy must also be encouraged to ensure that all skills from foundation modules are used in year 1 of the degree programmes, and students are more autonomous and learn the ‘rules of the game’ for successful university study. ****

Figure 2. My understanding of a lecturer’s aims on a Foundation Year with possible teaching strategies. Adapted from Kirk (2017).

**Recommendations**

The following recommendations are proposed for implementation on a programme and may help to improve student engagement:

***Programme and curriculum design:***

* Facilitate inclusive teaching practice, assessments and decolonising modules and programmes
* Introduction of assessment workshops at levels three and four. These should be weekly, labelled, timetabled, and scheduled as part of the module hours. Their purpose is to support students with their module assignments and help build confidence towards university assessment.
* More assessment coaching sessions at times convenient to the student. These must be coaching sessions rather than regurgitating the assignment brief and students must feel empowered to continue with the work once the lecturer leaves the room. Using twilight sessions can work here, as can meeting students in the library, since the classroom is too formal.
* Asking students to provide regular feedback, and change activities in line with individual group cohorts; what works for one group will not necessarily work for another
* Reflect students voice and feedback in the weekly module materials; design activities requested by students and reflect diversity in the curriculum design.

***Other:***

* Lecturers should always be open to listening and understanding student’s experiences. Explore who our students are, what are their drivers, and aspirations
* Consider the student make-up on the programme from year to year as this changes. It is important to not act on assumptions but on experience.
* Realise that the lived experiences of students are different (especially between the groups often included within the BAME acronym) and avoid the terms BAME or BME when talking and referring to students – this term clusters students together in a homogeneous group
* Explore the intersections of students’ lived experiences (race, gender and so on)
* Consider whether there are any attainment gaps that exist on your programmes; these may be evident at module level, so conduct a deep level examination
* Also consider progression/withdrawal data (it is not always about grades/achievement and attainment), focus on narrative
* Network and facilitate buddying up of students from similar programmes in terms of challenges we face (e.g. attainment gaps, engagement, withdrawal rates) and share good practice

In conclusion, FYs are characterised by the supportive and extended induction they provide into university life. They are not without challenges, and non-engagement from students is often not limited to BAME students. Key conversations for practitioners and those involved in the creation and delivery of foundation year provision should focus on a shared mission of improving educational opportunities for learners from all backgrounds, rejecting the deficit model of thinking and empowering students with the ‘rules of the game’. One area of consideration for future work is that of curriculum design, sharing more good practice across FY programmes and level four to help develop understanding of how modules can support students from the beginning of their journey, and continue to empower students in their discipline-specific writing, ensuring their use of academic code is sustained.

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