Flipping the Learning to Engage? Herts Route to Students' Higher Levels of Learning

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Abstract: This paper looks at the application of flipped learning as a pedagogy for student learning and its blended approach to the delivery of the learning and teaching materials. This paper is based on research conducted on the delivery of a Postgraduate Business Research Methods Module. The research indicates a specific structure and sequencing is to be followed in delivering the teaching materials of the Module, providing students the opportunity to learn to higher levels, using quizzes to test knowledge and subject understanding, case studies, practical applications and student-initiated discussions. The structured synchronous online flipped learning approach, known as SOFLA, is of great importance for large modules and a big teaching team, not only to ensure consistency of delivery but also for the educational experience of mainly international students. In addition, compassion pedagogy needs to be considered to create inclusion and engagement. Mid-module feedback and end-term student voice questionnaire datasets are used in the analysis of effectiveness and student learning of the Business Research Methods Module. The conclusions drawn are an excellently designed and managed Module, giving the required learning focus, with the realisation by students that their use of learning materials and engagement is open to improvement. Recommendations are made to seek solutions to enhance student engagement in the preparation for the Module's learning materials, achieving higher learning.

Keywords: blended learning, flipped learning pedagogy, compassion pedagogy, SOFLA (synchronous online flipped learning approach), learning engagement

1. Introduction

The Higher Education sector has been living through a truly dynamic and uncertain external environment, involving the evolving delivery of higher education with a strong endorsement of both undergraduate and postgraduate students becoming financially committed to longer term financial responsibilities relating to their education. In addition, the increasing competitive alternatives such as apprenticeship schemes, requiring a review, reassessment and restructuring of educational delivery, to ensure its delivery presents value for money and delivering the provision in a futuristic and appropriately focused way. The challenges the Covid-19 pandemic has caused in terms of social engagement has not passed the education field (Blundell, et al, 2020).

From the research carried out by Lindqvist (2019), reviewing digital learning content was found by academicians to be challenging, supporting the work with paper books in the classroom (Lindqvist 2019). A further result of this educational review is the stronger emphasis on blended learning, with online delivery increasingly becoming its central focus. In addition, research carried out 3 decades ago by Kock and Korner (1977), indicated that introducing digital learning reduces interaction among students, although stimulating interdepartmental interaction, without any indications on the impact on group effectiveness.

The stronger emphasis to online delivery due to the pandemic, from an essentially campus-based and on-campus delivery University to online and subsequent blended delivery resulted in this paper's authors to consider how to incorporate these influences in further designing the University's postgraduate Business Research Methods (BRM) module and discussed in this paper. The Module's role, within the MSc International Business Programme, is to prepare the students completing a 15000- word final Major Research Project.

To create an effective learning and teaching pedagogy in this new era, flipped learning pedagogy has been adopted for the design and delivery of the module. The concept of flipped learning was formally and officially defined by the Flipped Learning Network (2014) as "a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter."

2. The flipped learning pedagogy and SOFLA

Adopting the flipped learning pedagogy was to provide a transformational learning experience for the Programme and Module's predominantly international students, tending to be of Asian and African backgrounds. It further brought into focus the experience and management of students transitioning to a new academic framework and learning culture. An interesting comparison is with the findings of the 'Transforming Transitions' Project (Myhill, 2020). The 'Transforming Transitions' project conducted interviews with first year higher education/second-year further education students to better understand the differential outcomes in terms of success and retention of BTEC students compared to A-Level students (Myhill, 2020). As summarised by Huskinson et al. (2020), key challenges identified from this project included: 1) academic under-preparedness 2) awareness (but under-utilisation) of academic tutoring 3) becoming an independent learner 4) developing a 'sense of belonging' at university.

Furthermore, Deziel et al (2013) indicated the number of hours spent in classes (with little room for independent thinking) was found to have a negative impact on self-actualisation across all programmes, whereas the number of 'self -motivated' homework hours was found to have a positive impact. Moreover, engaging with empathy is a factor cited by Walther et al. (2020) that could help to engage students during their transition process, with Gilbert (2016) finding that by embedding a compassion-focussed pedagogy within seminar sessions, students became attitudinally inclined to increase efforts over time to enhance the social learning experiences of themselves and their peers. As well as signalling the presence of the academic tutor within the pre-tertiary to higher education 'transition landscape', the summary presented by Huskinson et al. (2020) provided important direction for the present research, due to dealing with international students.

The Flipped Learning Network (2014) suggests 4 pillars of FLIP must be present ensuring its learning outcomes and effectiveness. The 4 pillars are 1) Flexible Environment allowing for a variety of learning modes; 2) Learning Culture shifts teacher-centred model to a learner-centred approach with in-class time dedicated to students' active participation and engagement; 3) Carefully selected by educators' Intentional Content on what they need to teach and what students should explore on their own, to maximise classroom active learning and interaction 4) Professional Educator reflective in their practice and able to facilitate active learning and engagement. To implement the flipped learning, Moraros, et al. (2015) developed the flowchart of flipped learning structure and settings (Figure 1) which provides the foundation to follow by others in their design of flipped learning pedagogy.

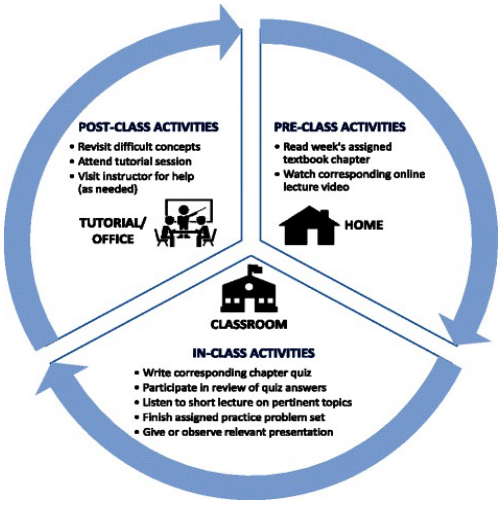

Figure 1: Flowchart of 'flipped learning' structure and settings (Moraros, et al. 2015)

A recent framework by Luo et al (2020), known as The Flipped Learning Wheel (FLW): Components and Principles (Figure 2) summarises the features of flipped learning, highlighting the role of collaborative and reflective learning. Most importantly, the FLW specifies the roles and responsibilities of the instructor and the learner, blended learning of online and face-to-face delivery. The framework also considers the accessibility and relatedness of materials, learners' engagement, collaboration, reflection and learning community, as well as instructors' feedback and support.

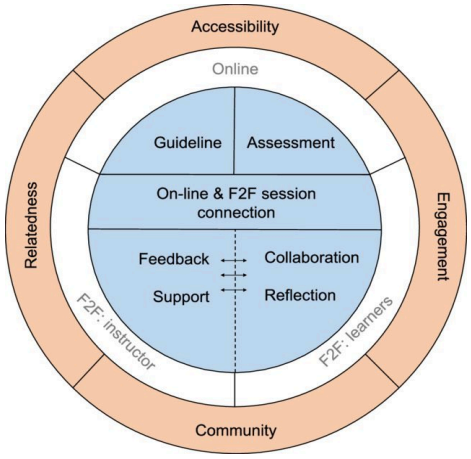

Figure 2: The flipped learning wheel (FLW): components and principles (Luo, et al, 2020)

The essence of flipped learning is about active learning with worth noting that active learning experiences being quite varied, as indicated by Wankat (2002). They often involve one or more of the following: (a) practicing or applying information through quizzes, presentations, or projects; (b) teaching others; (c) participating in engaging and challenging activities; and (d) exercising control over what is being learned or how it is learned, thus emphasising the focus on student centred learning away from instructional learning.

The effectiveness of flipped learning is proven in many aspects, such as changing student learning attitude, boosting their self-efficacy, improving academic performance, enhancing student engagement, and enriching their learning experience (Fish, 2016; Karadag, 2017; Chun and Jia, 2018; Mahasneh, 2020). Similarly, Moraros, et al (2015) in their research evaluating the effectiveness of flipped learning revealed that students find flipped learning provides them more opportunities to learn independently with flexibility before and after class; while being able to engage in critical thinking, interact with their peers, receive timely feedback/guidance from tutors in class. Accordingly, there has been growing interest and number of adoptions of flipped learning by educators in their pedagogy (Yarbro et al, 2014).

To deliver flipped learning during the pandemic, Marshall and Kostka (2020) produced a Synchronized Online Flipped Learning Approach, known as SOFLA. It is a more precise and structured model in guiding the specific activities of interaction and engagement in the e-learning process. It outlines 8 specific steps (see Figure 3) which includes all the aspects and activities proposed in the framework of Moraros, et al (2015) and Luo et al (2020).

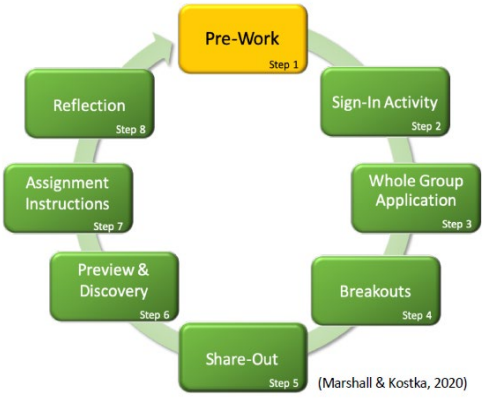

Figure 3: SOFLA model (Marshall & Kostka, 2020)

The 8 steps start from the pre-class activities known as 'Pre-Work' occurring asynchronously where students are instructed in their own time and pace. Moving to synchronous virtual sessions is the second step when the session starts with an open-ended prompt related to the lesson topic, known as 'Sign-in Activity'. Step 3 'Whole Group Application', the class will collaborate on an activity in a shared space to clarify misconceptions and/or deepen their learning of the topic. Afterwards, students will be directed to Breakout rooms and apply what they have learnt on assigned tasks. Returning from 'Breakout' is step 5 students' Share-Out while other students offer

feedback following 'SHAC' (Share, Help, Ask, Comment) protocol. Step 6 and 7 the teacher will give instructions for the coming session, not only the materials as 'Preview & Discovery' but also 'Assignment'. Finally, the synchronous session ends with an open-ended account so students can 'Reflect' that resonated with them from the lesson. This SOFLA model is adopted in the BRM module design to offer tutors and students clear instruction, guidance and consistency in their teaching and learning.

In adopting the SOFLA model it provides a consistent approach and delivery to the structure of the tutorials by means of a weekly template across all the tutorials through the 9-step structure as demonstrated in Figure 4:

Business Research Method Flipped Learning SOFLA Module Design Model				
Pre-Class Activities (*Student independent asynchronous learning*)	**Step 1: Pre-work Preparation**	Weekly core-text reading	Weekly case study / practical tasks	Weekly recorded lectures & on-campus lectures
In-Class Activities (*Tutor facilitated synchronous learning either online or F2F*)	**Step 2: Sign-In Activity**	The tutor starts with an open-ended prompt on "what this week's topic about?" and introduces the week's key topic/concept		
	Step 3: Whole Group Application	**Kahoot quiz (formative)** to check students' knowledge and understanding of the week's topic		
	Step 4: Breakout	Breakout room discussion on the case study / work on the practicial tasks (The tutor drops in different breakout rooms to facilitate and support the active community learning)		
	Step 5: Share-out	Students return from the breakouts and share their discussion outcome /practices to the whole class **using Padlet** (to record response and to be shared on the module site)		
	Step 6: Review & Discovery	The tutor discusses model answers to case studies / practical tasks		
	Step 7: Reflection	Students reflect & write down their key learning points/something to take away from the session		
	Step 8: Assignment Reminder	Weekly Canvas Quiz (10%)	Weekly Case Study Reflection (20%)	Weekly Task (Your Research) Leading to the final Research Proposal (70%)
Post-Class Activities (*Student independent asynchronous learning*)	**Step 9: Assessment Completion**	**Weekly Canvas Quiz (10%)**	**Weekly Case Study Reflection (20%)**	**Weekly Task (Your Research) Leading to the final Research Proposal (70%)**

Figure 4: BRM SOFLA module delivery (adopted from Marshall and Kostka, 2020)

3. The flipped learning and compassion pedagogy

Contrasting the flipped learning pedagogy with the University's compassion pedagogy; there are similarities in approach. Like the SOFLA Model, the study on compassion pedagogy sees the tutorial/seminar room as the appropriate space to practice cognitive progression. This is due to students working in groups on task focussed discussion - face to face, and with tutors present having an educator/mentoring role to observe and help. This is thus an indication that the two pedagogies of flipped learning and compassion have common ground in their philosophies. As shown in Figure 5, contrasting the SOFLA Model with the compassion pedagogic approach, common ground can be found in Step 2 of the SOFLA Model and Stage 1 to the approach to compassion through inclusion, as well as Stage 2 and how Steps 3-5 can be tutored, enforcing the all-inclusive culture.

Figure 5: Adaptation of compassion pedagogy (Gilbert, 2016)

Compassion pedagogy can also be regarded as inclusive teaching and learning. as HEA Academy (2017) stated it is vital to implement the inclusivity and "recognises all student's entitlement to a learning experience that respects diversity, enables participation, removes barriers and anticipates and considers a variety of learning needs and preferences". Gravestock (2017) explicitly explained inclusivity lies in "The design and delivery of teaching, learning and assessment methods that allow all students to engage meaningfully with the curriculum and achieve their full potential". Moreover, Advanced HE (2022) also advocate educators to explore inclusive culture and be innovative and deliver flexible teaching and learning.

4. The flipped learning leading to building-block design of the module

The initial design of the Module, prior to Covid subscribed to the conventional format of the reliance of pre-reading of the textbook, a didactic delivery of the lectures and assessments to follow. In response to Covid, this model was enhanced with blended learning and teaching strategy, coined with 3-stages of building-block flipped learning pedagogy with each stage linked to a summative assessment. Based on flipped learning strategy and compassion pedagogy, the module is designed as building blocks to engage students for higher level of learning. The blocks of teaching materials started to lay the foundation for adopting the principle of flipped learning and the blocks of pre-class, in-class and post-class activity – see Figure 6 below:

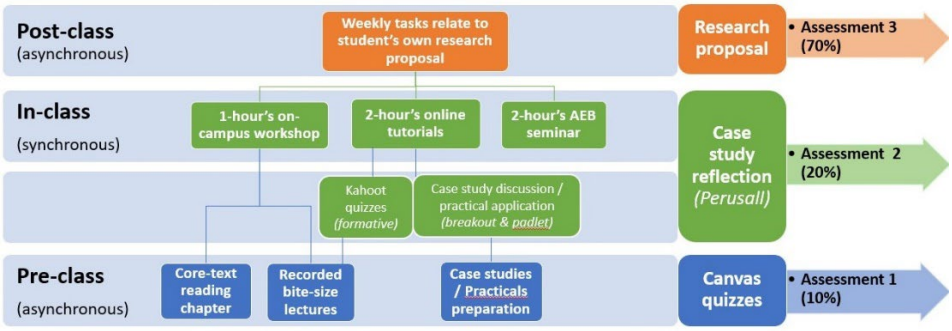

Figure 6: BRM flipped learning module design

Incorporating SOFLA, the module combines weekly pre-class, in-class and post-class activities combined with fun and relevant quizzes, recordings, case studies and practicals. What is more, all the activities are linked to formative and/or final summative assessments. The online tutorial templates were shared with 8 different tutors to ensure consistency for over 800 students on the module.

5. Research methodology

Mixed research methods were used for the collection of quantitative and qualitative data via primary research. The data were collected from two sets of a combination of closed and open-ended surveys, namely 1) the module leader team arranged Mid-module feedback workshops using Mentimeter and 2) the University's anonymous End-module student voice questionnaires. Module feedback data collected are perceived vital not only for the paper but also for the continuous development of the module. Yorke (2003) highlights the role of feedback in that "The act of assessing has an effect on the assessor as well as the student. Assessors learn about the extent to which they [students] have developed expertise and can tailor their teaching accordingly". Furthermore, Mamood-Al-Bashir, et al (2016) agree that "Good feedback practice can not only provide useful information to the students in improving their learning, but also offer decent information to teachers which is eventually to improve the learning experience for the students". Thus, whilst students' demands for feedback are met and analysed in this paper, the tutors themselves need to have insight into how students are progressing and experiencing their teaching. The tutors therefore become more involved in reviewing and reflecting on students' performance which drives them to create a better learning environment and better learning materials. This became the driving force behind having Mid-module and End-module Feedback which are presented in the paper. Both gave a useful insight into how the students were receiving and experiencing their learning.

6. Findings: The module feedback

The Mid-module feedback using Mentimeter open-ended questions from 92 students on Sem A 2021 demonstrates that students find the BRM module 'engaging' and 'interesting' and regard it as the 'most arranged module', 'one of the best modules'. However, they also find it 'challenging', 'demanding' and 'lots of reading'. Table 1 summarises the key positive and negative views of the students.

Table 1: Student feedback of the BRM module

Positives	Negatives
'one of the best module' and 'most arranged module', 'interesting', 'engrossing', 'informative', 'insightful', 'practical', 'fruitful' and 'very productive' and 'developing new ideas'	Challenging with lots of unfamiliar terminologies
Enjoyed the Kahoot quiz, module quizzes, case studies & AEB; also, the Breakout rooms	Lots of reading and reading as the least interesting part of the module

Positives	Negatives
They all spoke very highly of the module team, MLs, tutorial and AEB tutors, a few names highlighted in the attached	Breakout room with less engaging students
Students can see the 'building block design' of the module and the connection of tasks/topics within a Unit and between Units	Low engagement with pre-recorded lecture materials despite the scheduled independent learning session

In response to the module management and the building block activities designed in line with the flipped learning strategy and compassion pedagogy, Figure 7 below highlights the central themes of positive reviews with mostly over 4 out of 5 score, apart from the reading.

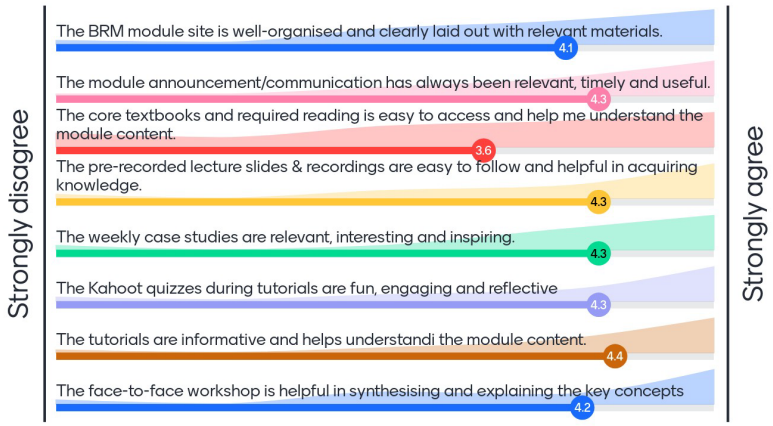

Figure 7: Responses of how the module is managed

However, Figure 8 below on students' own reflection of their engagement with the module indicates they are not good at engaging with the asynchronous pre-class and post-class activities, with all 4 activities scoring lower than 4. Meanwhile, the scores indicate they have attended well and engaged with both teacher-facilitated on-campus and online sessions.

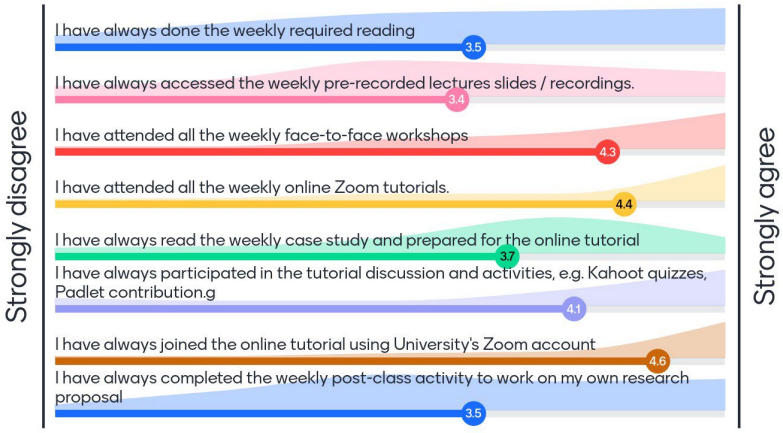

Figure 8: Students' reflection of engagement

Another 2 areas of interest from the Mid-module feedback open-ended questions are the responses to 'the most interesting part of the module' and 'areas for improvement'. Results demonstrate that students are very interested and engaged with the fun and competitive Kahoot quizzes as the most frequently occurring interesting part of the module. What is more, the inclusive AEB sessions offering contextualised, embedded and mapped (CEM) module support proved to be extremely popular too. Students found the AEB sessions helpful and made them feel they are not 'stupid' as many others have similar concerns and misunderstandings

In addition to the module's mid-term feedback, the University's end-of-term Student Voice Questionnaire based on 105 participants provides a further interesting picture as shown in Figure 9.

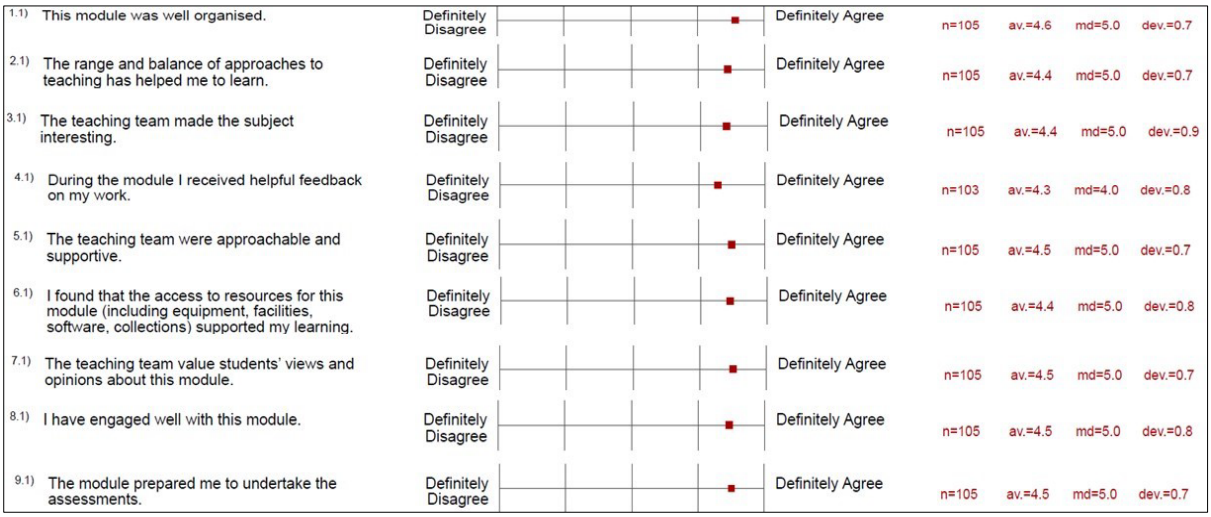

Figure 9: End-module student voice questionnaire result

Of the 9 areas, the first question relating to the organisation of the module has gained the highest means of 4.6; while other aspects are 4.5 out of 5.0 with standard deviation less than 1.0. This indicates the success of the flipped learning module design. A few supporting comments in the last open-ended question are:

- "This module was very organised and the way it was treated, it has a great topics and a lot to look into. And all the topics were arranged in a way the one and study it on their own and understand it. The lecturer was good with his work, making every lecture incredible.".
- "The module units were very well organised and all the tutorials and workshops was fully explained by my tutors to us with their best way of teaching skills which really helped all of us to understand module better."
- "The module was very well organized and very well taught. I enjoyed all the sessions especially the tutorial session with kahoot."

7. Discussion

Ultimately, the success of the flipped pedagogy is dependent on that the preparation was undertaken by the student (Burke & Fedorek, 2017), the individual characteristics of the student (Chuang et al, 2016), as well as the skills of the instructor to effectively engage the students (Whelan et al., 2016). However, there are critiques of flipped learning. Findlay-Thompson and Mombourquette (2014) claim that they are not changing the academic outcomes. Strayer (2012) suggest that students not used to the classroom being disoriented by them, which may be more significant for international students; though the research of Moraros, et al (2015) indicate international students find the flipped learning more effective than home students (North America) and more likely to be satisfied with the learning experience. Chen, et al (2014), Burke and Fedorek (2017) and Hao (2016) have identified additional weaknesses in the flipped learning approach, namely some students not favouring flipped learning, preferring to passively receive content in class. Further reinforced by Wilson (2013) indicating that although pedagogical experts recognise the superiority of student-centred learning environments, some students are reluctant to embrace a shift away from teacher directed learning (Wilson, 2013). Students' dislike is expressed in not completing the self-directed preparatory learning, characteristic of the flipped class (Burke and Fedorek, 2017; Hao, 2016) and a requirement that can generate student complaints (Hao, 2016; Whelan et al., 2016). In this research, some negative comments are mostly related to Covid than the flipping pedagogy.

From the students' feedback on the module delivery, a mixed feeling towards online, on-campus and a blended approach is evident. While some students prefer more on-campus sessions; some fear physical classes due to the covid. Some love blended and considered it a 'sensational innovation' under the current circumstance. Table 2 summarises a few comments from students:

Table 2: Student reaction to the mode of delivery

Face-to-face delivery	Online delivery	Blended delivery
Able to meet peers on campus Missing the campus University experience	"Fully online please. I've lost too many people to covid. I get scared of classes and going to public places"	the 'best during their period of covid'.

Face-to-face delivery	Online delivery	Blended delivery
Attending on-campus session helps understanding, consolidation and clarification	"Make all the classes online up to the threat of Covid 19"	"The blended learning strategy is a good idea. It makes engaging, interesting and dynamic."

Students preferring on-campus delivery may be particular relevance, as being those who are not well prepared as they disclosed in their lack of engagement for asynchronous activities. Meanwhile, fear of the Covid -19 virus is understandable, being international students away from their families. The blended learning approach maybe the way forward with emphasis on exploring technology and creating inclusive and engaging pedagogy as stated by Advance HE (2021).

Considering the key pillar of flipped learning pedagogy, namely to achieve higher order learning, it is vital that the individual learning space is emphasised and the group space is transformational in a dynamic and interactive way (Flipped Learning Network, 2014). As indicated by Wankat, (2002) teaching others; participating in engaging and challenging activities; and exercising control over what is being learned or how it is learned is a distinct ingredient in the application of flipped learning. Thus, the emphasis on for example teaching others, exercising control or how it is learned, emphasises the recognition of barriers in the practical application of flipped learning through the identification mentioned above of lack of inclusiveness experienced by BAME and international students. This enforces the value of inclusiveness, as defined in the compassion pedagogy. Thus, in Steps 3-5 of the SOFLA model, creating the inclusiveness culture of compassion and inclusion through Students considering 1) what am I doing to enhance other peoples' learning? and 2) what are others doing to enhance my learning? (Gillbert, 2016) indicates the value of compassion pedagogy in strengthening the opportunity of higher order learning by how effective the learning in the group space becomes.

However, what is the argument to enforce an approach to compassion, if not consider the value of compassion pedagogy to be an integral part of flipped learning? The study of literature in part provides the answer, suggesting that the negative impacts of communicative barriers between students in task focussed groups, are faced by BME and/or international students only. For example, in the literature on internationalising the curriculum, Turner (2009) identified that ethnocentrism amongst her local students was causing communicative barriers in their group work with international students. The local students tended to pathologise the silences in group discussions that the international students told Turner they needed if they were to find a way into these discussions. The National Union of Students Report (2009) identified from a survey of 938 BME (including international) students, that many considered their learning experiences to be negative. 23 per cent describing it as 'cliquey', 17 per cent as 'isolating'; 8 per cent as 'hostile'. International students, "frequently expressed feelings of isolation and alienation" (p5). The significance of these findings is that the Business Research Module, from the MSc International Programme cohort, consists of a high proportion of students from Indian and Nigerian and other Asian countries such as Pakistan and Bangladesh. Thus, the findings from the Turner (2009) studies and NUS Report (2009) are pertinent indicators to potential weaknesses in the learning based on the Flipped Learning pedagogy. Thus, as indicated in the NUS Report (2009) "to promote social cohesion and better integrate their student bodies" can alleviate this weakness. Thus, the combined pedagogic approach of flipped learning and compassion through inclusivity, effectively managed by the academic tutor, becomes a further key pillar in the ability to achieve higher order learning. Emphasising inclusivity is re-enforced in the Module tutor's handbook as a guide to achieving an optimum learning environment.

The critical assumption embedded in flipped learning that students can and will do the preparatory work, can be seen as the Achilles heel of the pedagogy. Lack of self-confidence in their own sense-making if not reading skills, a lack of motivation or self-organisation skills, or lack of familiarity with the language can all contribute to a lack of preparation or resentment towards preparation. Research by Masland and Gizdarska (2018) however, indicates flipped learning's success in its construct, namely that after adding a menu of options for pre-class content absorption (including, but was not limited, to video lectures), over half of the sample selected the flipped class as the preferred option. These results make sense in the context of Self-Determination Theory, which postulates that the provision of choice leads to increases in student agency, such that students are more likely to invest the effort and engagement necessary to succeed (Ryan and Deci, 2000).

The discussion indicates that 'flipped learning' has gone beyond the simplistic concept of 'flipped classroom'. It resembles the notion of 'asynchronous learning', also involving 'synchronous learning' when educators and learners are at a same time and space and considered as a form of 'blended learning' or 'hybrid learning'

(Advance HE, 2021) which the educators utilise to facilitate student-centred, interactive, and engaged learning for more effective learning outcomes (Yarbro et al, 2014).

8. Recommendations

To achieve, through analysis from the data sets, a better understanding of the behavioural and motivational aspects of students and thus develop the Module further to enhance the levels of engagement in the pre-class and in-class activities. Future research through student representatives' focus groups and continued module feedback, benefitting from the student cultural differences and its influence on engagement, regarding preparation and pre-class activities will also help to create a valued data set for further analysis and action.

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