Blended learning and developing an online presence to support inclusivity

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Blended Learning & the development of a greater online presence: Rationale

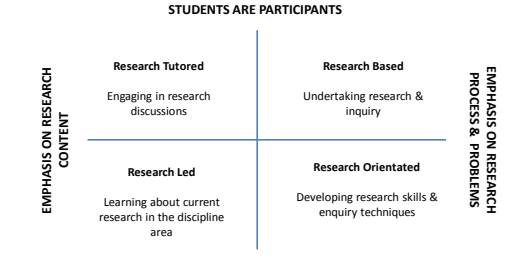
Why a blended approach to learning – to be inclusive and to innovate

Blended learning – flipped classroom, PBL, research informed teaching, online presence – something for everyone

An **inclusive** approach to support a range of students and their backgrounds, and to **innovate** pedagogical practice on the sport science programmes

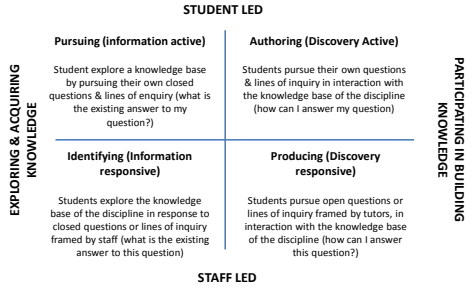
- students coming with different expectations of studying
- different preferred learning styles
- time pressure
- group sizes
- pedagogical enhancement and advancement

The nature of undergraduate research & inquiry: The catalyst for change



Adapted from: Healey (2005)

Inquiry based learning – a conceptual framework: The catalyst for change



Adapted from: Levy (2009)

Blended Learning & the development of a greater online presence: Rationale

Blended learning

- no one definition, however, delivery that combines face to face contact time with online instruction. Blended or hybrid instruction uses a combination of face-to-face and online learning activities and **has been found to increase understanding, interaction, and involvement in the learning process** (Kenney & Newcombe, 2012)

Flipped classroom

- The flipped classroom is a pedagogical model that employs asynchronous video lectures, reading assignments, practice problems, and other digital, technology-based resources outside the classroom, and interactive, group-based, problem-solving activities in the classroom (Hawks, 2014)
- Lectures are pre-recorded and online to be viewed before outside of contact time, this classroom time is dedicated to learning activities that require students to engage concepts at a higher level in a group setting and with an lecturer at hand to answer questions, give feedback, and prompt re-examination of key ideas. **Better learning outcomes as a result of engaging inverted teaching methods, as it increases levels of problem solving structure and practice** (Baepler, Walker & Driessen, 2014).

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Problem Based Learning

- Involves practical skills that are applicable to real world tasks and situations. Through the introduction of the problem as the focal point of the module, **PBL engages and directs the learner toward the attainment of the action-based skills required for effective utilization of these skills** (Haber, 2014)

Research informed teaching

- different ways in which students maybe introduced to research and inquiry, undertaking research, developing research skills (Healey & Jenkins, 2009)

Blended inclusive learning adopted within a PBL approach: How it works

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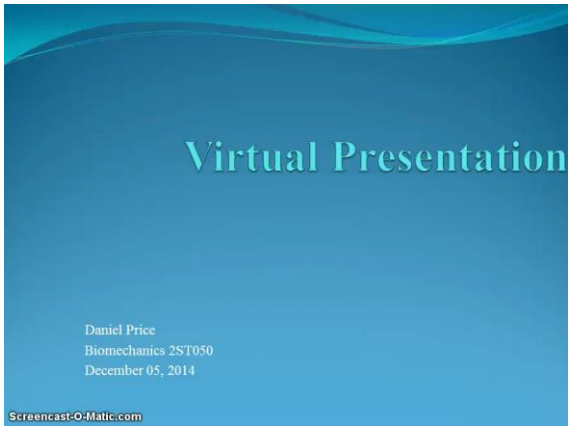


Impact of pedagogical interventions on student success: Perception & reality of student engagement

Innervations in approach & delivery resulted in:

33% (12 hour) Increase in 'module delivery time' through online & real delivery

High quality video lectures, seminar recordings & online research guides provided via the VLE.

83% of students accessed screencast assignment brief (2.33 activities per student) resulting in reported decrease in volume of module tutorials.

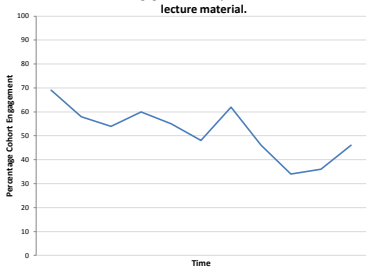
Students demonstrating greater achievement in the subject area through developing skills & knowledge (3.2% increase in module grades).

My Learning Experience on the module	% Agree	% Disagree
I fully participated in this module.	91	0
I made full use of the supported open learning available to me in this module.	67	1
Overall satisfaction		
Overall, I was satisfied with the quality of the module.	30	39
Module specific questions		
I found the use of technology enhanced learning (TEL) strategies on the module supported my development	43	13
The use of online lectures were appropriate and they supported my learning	40	45
I found that the seminars provided a supportive environment for my formative and summative assessments	49	32

Impact of pedagogical interventions on student success: Student engagement with pre-recorded materials

Kenny (2012) identified that '90% of the students liked the convenience of the blended approach, with 88% liking to work independently at their own pace'.

Student engagement with pre-recorded online lecture material.



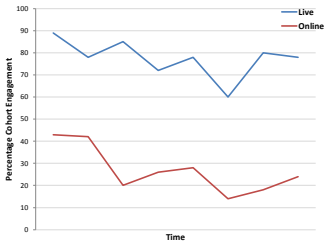
Pre-recorded lecture engagement reported as 51.6% ±10.3% with mean student activity count of 1.89 ±0.35

Online support resource videos (equipment tutorials / data collection guides) reported mean engagement of 32.8% ±5.15 with an activity count of 1.89 ±0.25

Impact of pedagogical interventions on student success: Student engagement with live sessions & recordings

Findings support an emergent body of evidence that the use of lecture recordings does not impact upon attendance to lectures (Scutter et al. 2010; von Konsky et al. 2009).

Student engagement with live seminar sessions & online associated material.



Data identifies attendance to live (traditional) seminar sessions 77.5% ±8.15 with the recording of these sessions viewed by 26.9% ±9.9 of the cohort.

Attendance figures on this module are comparable to wider programme attendance & consistent with existing literature on recorded lectures (Larkin 2010)

Impact of TEL & PBL approach on the module: Qualitative evaluation of impact upon learning & development (Positive Impact)

Bates and Galloway (2012) found that 80% of survey respondents in a first year science orientated course preferred the flipped structure to a traditional approach.

'a good supplement to learning in traditional fashion' **(Aids learning)**

'online lectures were very helpful & supported my learning throughout this module'

'It has been beneficial with regards to my learning as I have been able to go back and look at material I didn't understand' **(Aids learning / accessibility)**

'Much better as you can look at them again and over again, fast forwarding to specific parts' **(Accessbility)**

'New technology was embraced and a new structure gave us more of an opportunity to be hands on and discuss the theory' **(Aids learning)**

'The research study allowed for a visual representation of many of the concepts covered in the literature. It also provided an understanding for how the research process is undertook, which made the readings easier to understand' **(Aids learning)**

'(the research project) was very practical, there was still learning but more application and I feel it has set us in good stead for third year' **(Development of graduate attributes)**

Impact of TEL & PBL approach on the module: Qualitative evaluation of impact upon learning & development (Negative Impact)

Bishop and Verleger (2013) identified that the consensus within the research on a flipped classroom approach was that student opinion was consistently positive, however a significant minority of students remained opposed.

'I have enjoyed having to watch the online lectures but would still have preferred the tutor leading the lectures' **(Personal contact)**

'I did not find the online lectures helpful, I would much prefer a normal lecture in person where I can take notes & engage when appropriate' **(Personal contact)**

'would prefer to have staff in the lecture room explaining things to me instead of having them put together an online lecture' **(Personal contact)**

'I feel that since we are paying (tuition fees) I reckon we should have the lecturer present in the correct times' **(Personal contact)**

Impact of TEL & PBL approach on the module: Qualitative evaluation of impact upon learning & development (Negative Impact)

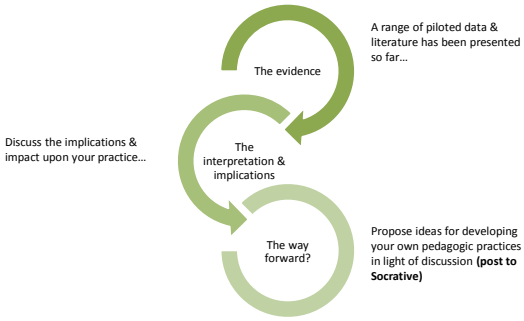
Jaster (2013) found the majority of students prefer a traditional lecture approach to a flipped classroom in a first-year course. Schullery et al. (2011) identified 32% of the respondents to their survey advocated a return to a traditional lecture format.

'felt that we weren't taught enough at all' **(Expectations)**

'it (online lectures) shouldn't be an excuse to have less contact time with the students' **(Expectations)**

'Still don't feel I understand fully biomechanics, and feel there could have been a lot more resources to help, and tutors could have been a lot more on hand to help' **(Hinders learning)**

The challenges of adopting an effective blended learning approach: Talking about Teaching



Blended learning and developing an online presence: Conclusions

By adopting an inclusive approach we may have partially excluded students that prefer a more traditional approach to education. This perhaps explains the extremes evident within the feedback & qualitative commentary received.

This may have been further compounded by the comprehensive & integrated approach adopted within this module perhaps providing a basis for a more subtle less encompassing strategy to be employed in the future.

Students may benefit from a more sensitive & stepped transitional approach to blended learning. This should aim to develop their appreciation of how to engage more effectively with novel teaching & learning strategies.

The adoption & benefit of a PBL & research informed approach may not manifest itself truly until later in a students academic journey.

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