

Module 2F: Impact & Influence

Paul Andrew Eynon

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REFLECTIVE COMMENTARY

Covid-19 forced our hand along with those of other institutions to pivot not only our teaching to an online delivery format, but also to deliver our assessments online as open-book examinations (OBEs). Decisions made were pressured by the lack of time & resource to adapt our traditional face-to-face proctored examinations to OBEs & there was general discourse among my colleagues in light of this.

What did I do?

Having received feedback from colleagues in my role as Professional Phase Assessment Lead for the final year of the BVMS Veterinary Undergraduate Degree programme, voicing concern & lack of understanding with this mode of delivering assessment. Utilising tools including a Force Field Analysis & Cultural Map (Appendices: A & B), I devised a project plan, adapted further in response to peer feedback (Appendix: C). The resulting overview CPD session workshop explored what OBEs are & how our fellow Higher Education colleagues approached the same challenges in their use (Appendix: D).

How was it delivered?

The recorded Zoom session was scheduled for 2-hours & planned to have opportunities for participants to interact through the use of Mentimeter & Breakout Rooms, however due to poor attendance (n=8), the level of interaction had to be scaled-back.

What challenges did I face with it?

Due to the reduced number of participants in the session, I elected to deliver my literature review as a 35-minute lecture with 15 minutes at the end for questions. In exploring the literature, I focused on comments & feedback from colleagues obtained during assessment review meetings, structuring the lecture in response to these. The attendees happened to not be those who had raised concerns prior to the session, however, for those unable to attend, the recording was made available for viewing.

How was it received?

Following the session, attendees were contacted & asked to complete an anonymous Microsoft Forms Survey (Appendix: E) evaluating their experience. Overall, the session was well received with all participants gaining a better understanding of what OBEs are, some of the challenges faced with using them & how we might manage such difficulties. A positive remark was that it was beneficial to have the experiences from other HE institutions brought together for review in one place. Most attendees requested follow up session(s) regarding OBEs – with question writing, marking & evaluation of OBEs being listed as possible themes.

What might I do differently in delivering a similar session?

The overall satisfaction recorded was 3.7/5 for the session, with one attendee awarding a 2star-rating. I feel that there may have been a number of factors leading to this: some attendees 'may' have felt the session was compulsory as overarching reason was an 'Away-Day' session; attendees may not have been directly involved with assessment; the delivery in the form of a 35-minute lecture with absent interactive elements may have been perceived as unstimulating; the subject matter may not have been of interest; or the timing of the session coincided with that of the majority of staff being on annual leave.

Where could I take what I have learned from doing this & lead change within the SoVM¹ with regards to OBEs?

Being able to respond to colleagues' questions & concerns around the use of OBEs moving forward has been beneficial, especially in light of the likely move towards embedding such assessments into our programme in the near future. Helping others to realise where we already use OBEs & the future applications & benefits of increased usage, can only lead to positive change. Involving all stakeholders in the move to incorporate them & in the understanding of their value is central to my next steps. Utilising an adapted version of the EFQM Excellence Model (Porter & Tanner, 1998), see later, my hope is to effect change

¹ School of Veterinary Medicine

in/for our colleagues, students, accrediting bodies & the general public. Delivery of additional, interactive workshops aimed at both colleagues & students in preparing for & thriving in OBEs has been requested & is warranted.

Having experienced delivering my session to sow the seeds of change & having explored the various leadership models available, I appreciate the need to remain fluid & dynamic in my approach to leading change. I don't view my role within the workplace as a manager, but more so as a worker, part of a team who together deliver my teaching & assessment of our students. I have not however, reflected upon the leadership within my various roles until more recently, identifying some of the essential characteristics required such as providing direction to my students, colleagues & trainee vet nurses in the operating of my clinical service, including them in the creation of SOPs & supporting them in mentoring of one another. I have received feedback from students & colleagues alike re my communication skills & ability to respect & adapt to differing cultural viewpoints & beliefs. My training out with the workplace towards a Diploma in Counselling has also added to my in-work persona, contributing to a level of trustworthiness as described by Bryman (2007).

Leadership Modelling

In my informal role as Professional Phase Assessment Lead, I'm viewed as a 'local educational leader', as described by Martensson et al. (2014) one whom 'individual teachers interact with personally, on matters concerning teaching & assessment'. With this in mind, I explored five models of leadership in relation to my CPD session drawing conclusions regarding parallels with my plan for change.

- Situational leadership (Blanchard, et al., 1985): this lends itself to what I consider classroom leadership, such as that I experience while teaching on my rotation. It relies on me tailoring the leadership to my students/colleagues depending upon my perceived understanding of their knowledge & motivation. A critique of this model is, as I feel was shown in my colleague feedback on the session, that it may prove most useful with complete beginners in a subject who are strongly motivated to engage.
- Push-Pull leadership with the latter portion of this theory being what I was aiming to encourage during my CPD session, to attract my colleagues to the idea of OBEs, bridging the gap between their considered concerns over using them & the long-term

potential benefits for all involved. I also feel the 'Push' aspect of this model relies more on individuals using it, having 'actual' power as opposed to 'local leaders' such as I consider myself.

- Distributed leadership (Bolden, et al., 2009) (Lave & Wenger, 1991) relies upon a community of practice & a shared perception of what leadership & when leadership 'is'. Within my role in the School of Veterinary Medicine, this is the most apparent model of leadership exercised & in delivering my CPD session it was apparent that colleagues learned about how we could use OBEs in the future but were also keen to interact with the group & I to impart their prior knowledge & experience of OBEs, adding to the collective nature of planning.
- Lateral leadership (Cohen & Bradford, 2011) has been said to overlap with that of the distributed model with the observation that it often involves, as I discovered during my CPD session, leading those who normally lead/manage you. This point concerning those in senior management attending & listening to me also encouraged reflection upon another point raised by Cohen & Bradford (2011), that personal goals should be kept out of the leadership. This has proven somewhat difficult as we are encouraged/expected to undertake leadership roles such as those I have responsibility for in order to be successful in being promoted.
- Transformational leadership (Johnson & Scholes, 1999) (Hofstede, 1997) (Roueche, et al., 1989) typically involves a change in the organizational culture. There are a number of steps involved, such as is evidenced in my cultural map regarding OBEs (Appendix B). This organizational change relies on change filtering down to all individual stakeholders.

As mentioned above, there are a number of leadership models described in the literature ranging from the specific focus on character traits of each involved e.g., Situational Leadership (Blanchard et al., 1985) to what I'd consider to be the 'gold-standard', Transformational Leadership ((Johnson & Scholes, 1999) (Hofstede, 1997) (Roueche, et al., 1989). The latter, as alluded to previously, strays into the landscape not only of again, a teaching style I aim to exercise, but also one of empowering all who are involved to be 'coached' along on the journey. This theme of empowerment came through upon reading Rouche et al. (1989) where they discussed the subthemes of Transformative Leaders: (a) believing in teamwork & shared decision making; (b) valuing people both as members of the team & as individuals; (c) understanding motivation; (d) having a strong personal value system &, finally, (e) have a vision of what their institution/workplace/project can become.

An adaptation of the Transformational Leadership model might be akin to that of the **EFQM Excellence Model** (European Foundation for Quality Management) as shown in **Figure 1**.



91999 EFQM. The Model is a registered trademark of the EFQM

Figure 1. EFQM Excellence model

This provides a framework incorporating elements of leadership with that of customer focus, much like the role I find myself in at the University (Davies, et al., 2001). It was launched in 1991 with uptake by mainly 'for-profit' organisations (Porter & Tanner, 1998), but has gained popularity across other sectors. This model (Figure 1.) appeals to me as it encompasses the need for leadership to be collective, collaborative, organisation-wide and focused on the outcomes to include all stakeholders – colleagues, students and society, the latter becoming increasingly important in needing to justify the use of OBEs, ensuring our graduates are day-one-competent.

APPENDIX: A

Force Field Analysis: Final Year Vet Student Assessment – 'Open-Book'

Force Field Analysis			
Forces for change	Intended change/intervention	Forces against change	
RCVS (accrediting body) requires a 'high-Stakes' assessment at the end of the degree Students 'like' the open-book approach re reduction in exam stress	Move towards keeping the end of degree 'open-book' assessment, adapting/writing more authentic questions for this delivery of assessment. Provide staff with background on current evidence & experience of open-book	Cynicism from staff re 'open- book' delivery being appropriate for end of degree assessment – re cheating We've trained the students to take exams in the same way for years, to change this in their final year could be detrimental for some	
Some staff open to change in the format, following 2020 exam diet	assessments to foster confidence in the move. Overall aim to create an end of degree assessment that is regarded as authentic for what our Vet graduates require to not only meet the accrediting bodies expectations but also the expectations of the professional & on a personal level.	Staff consider online proctoring & keeping the exam format in its historic form	
Provide flexibility of access for overseas students		Staff resistant to change, especially due to the current climate	
Staff keen to move to online assessment ongoing re ease of marking		Concerns over time, workload involved in changing the format – writing questions etc.	
Kindly challenge the norm of final year Vet Degree assessment(s) formats to explore whether there is a 'better' & more authentic way – supports student & graduate outcomes		Access to appropriate IT set-up for students	
May help in drawing out areas for the teaching team to concentrate on lower down the course for future cohorts		Support required throughout entire testing window i.e. 2 x 24-hour period (IT & academic support).	
Improved student 'buy-in' re value of assessment		Concern that are we just doing this to 'firefight' during the pandemic? & if so, will we 'waste' effort only to return to the historic ways of students on-campus sitting final examinations	

APPENDIX: B

Module 2F: Cultural web or map template



APPENDIX: C

Exploring the use of 'Open-Book' Assessments as a method for assessing our student's knowledge. How might we foster confidence in our colleagues? What do we know & what has Covid taught us about their use?

Issue that your practice-based project addresses:

- Regulating bodies (Stakeholders) for our degree require an end-of-course highstakes examination to assess competency of our students to graduate.
- Time sensitive move to running our degree exam online for the graduating class of 2020 using exam bank questions.
- Relaxed, open-book assessment in contrast to the historic norm.
- Students performed very well across both papers.
- Staff (question markers), colleagues, question writers & our accrediting body have valid concerns re 'Open-Book' format.
- Two main concerns to be addressed:
- 1) Is it the 'Open-Book' format that encouraged better attainment or the generous window within which to complete the assessment (i.e., did plagiarism/cheating play a part?). What does the literature tell us? What have other institutions & degree programmes found over the period of Covid's influence with such assessments?
- 2) What does an 'Open-Book' question 'look like' & can we adapt our current bank of exam questions into being 'Open-Book' OR would we need to consider writing all questions to be used, from scratch?

What project/event are you planning?

I plan to run a Zoom information session to help answer some of my colleague's questions & concerns surrounding the proposed use of 'Open-Book' assessments for our graduating class of 2021. The session will be aimed at colleagues who prepare & mark questions involved in the end-of-course Degree Exam:

- Literature review of what we know about the use of 'Open-Book' assessments currently used in similar Professional Degree Programmes.
- The Pros & Cons.
- The fundamentals of writing an 'Open-Book' type question (in our context).
- What the impact might be on student's sitting a high-stakes Degree Exam having never encountered this new question format.
- How we might manage the concerns around plagiarism & cheating.

Reviewer 1

You should provide brief, supportive, formative feedback to your peers against the following rubric:

1. Is the issue identified focused on developing colleagues' learning and teaching practice and important to address?

Yes, the project aims to explore the use of 'open-book' assessments as a method for assessing students' knowledge. This is both an important and highly relevant topic, considering that the current pandemic situation has made traditional classroom assessments increasingly difficult.

2. In what ways is the project likely to have an impact on the issue, in the context described?

The project is likely to increase colleagues' confidence in using'open-book' assessments, by reviewing current knowledge in the field and addressing reasonable concerns.

3, is the project feasible? i.e is it possible to address the issue in the way described? In the timescale available?

It was not clear how thorough the literature review on the use of 'open-book' asessments will be -I would imagine, however, that this stage can be completed in a reasonable timeframe, to allow the timely organization of the Zoom information session.

4. Do you know anyone else in the University that has addressed this before and/or could provide additional information or support?

No.

Reviewer 2

You should provide brief, supportive, formative feedback to your peers against the following rubric:

1. Is the issue identified focused on developing colleagues' learning and teaching practice and important to address?

Yes, partly so. The problem is ultimately about the design of assessments as seen from the students' perspective. Specifically, the question is whether there are any issues with open book exams, which have become the norm under COVID-19. This is definitely important but to make it more focused on the teaching colleagues, we need to know whether there is actual demand or anxiety toward this issue. Speaking from my own experience, I don't think it is. So you need some evidence on this.

2. In what ways is the project likely to have an impact on the issue, in the context described?

The project will involve a Zoom information session to help answer colleague's questions and concerns surrounding the proposed use of 'Open-Book' assessments for our graduating class of 2021. The session will be aimed at colleagues who prepare and mark questions involved in the end-of-course Degree Exam. This definitely addresses the right stakeholders and thus will have an impact.

3. is the project feasible? i.e is it possible to address the issue in the way described? In the timescale available?

The project is feasible as it involves sharing a public good (i.e., literature review) via a Zoom lesson. One element that could be added here is to rely on subjective experieces and allow for peer-learning. Simply sharing literature findings might be a bit too dry!

4. Do you know anyone else in the University that has addressed this before and/or could provide additional information or support?

No, as I said, the issue of unethical conduct (open book) hasn't occurred to me. It can be addressed by design, i.e., not giving too much time to answer questions so looking things up is pointless.

Reviewer 3

You should provide brief, supportive, formative feedback to your peers against the following rubric:

1. Is the issue identified focused on developing colleagues' learning and teaching practice and important to address?

the project has a very clear and well-defined issue. I also feel this is a topic worth exploring, I have had a similar discussion on the topic of Open book exams recently and the concerns expressed during these conversations in my school reflect what will be addressed in this proposed project.

2. In what ways is the project likely to have an impact on the issue, in the context described?

I feel the systematic structure of how the information will be presented and reviewed by the author and shared with the staff should have a positive impact in alleviating concerns that some staff have around the integrity of open-book assessments. The project will also offer insights into the fundamentals of how to write an open book assessment which in my experience is usually the barrier preventing this type of assessment from being adopted.

3. is the project feasible? i.e is it possible to address the issue in the way described? In the timescale available?

Yes the project is feasible and the timeframe is adequate to allow for a quality review of the literature concerning the topic and allows enough time to present the material to the staff so they may adopt this method for the next exam in 2021

4. Do you know anyone else in the University that has addressed this before and/or could provide additional information or support?

no i do not.

APPENDIX: D

Should **'Open-Book Examinations'** (OBEs) in an online format be avoided or embraced within the SOVM (School of Veterinary Medicine)?

COVID forced our hand along with those of other institutions to pivot not only our teaching to an online delivery format, but also forced our hand when it came to assessment of our students.

In the background, there has been chatter around a move towards online assessment, but March 23rd, 2020, saw the start of the countdown for the HE (Higher Education) sector, faced with the dilemma of how to effectively deliver assessments for our students.

During this session we'll explore the approach taken by other institutions & subject areas towards this mode of assessment, exploring some of the concerns & challenges faced in addition to any perceived & encountered benefits to students & staff in its delivery.

Is it truly all doom & gloom, plagued with worries around plagiarism **or** can we yield some positive outcomes from our experiences across the sector that could enhance the, now very much in motion, leap into online, open-book assessment?

As with our own experiences, many institutions adapted paper-based, in-person invigilated assessments to online open-book, non-proctored & in some cases, non-timed (i.e., 24hr assessment windows) events.

What are 'OBEs?

- They are an assessment method designed in a way that allows students to refer to class notes, textbooks, or other **approved material** while answering questions.
- Depending upon the time limit, OBEs can replicate realistic professional workplace tasks that require information from various sources to be interpreted & synthesized, allowing learners to make informed decisions.

What are some of the **common** words & phrases we think of when considering **'Open-Book' Examinations** (OBEs)?



With OBEs we're aiming for the peak of the triangle, whereas with CBEs we sit somewhere around the base:



What are some of the considered Pros of using OBEs?



What are some of the considered Cons of using OBEs?



What have our Higher Education colleagues & learners experienced over recent times when it comes to OBEs?

The team out of the Faculty of Medicine Khon Kaen University in conjunction with Harvard Medical School (Eurboonyanun, et al., 2020) compared the 'new' online assessment scores for the student surgical rotation with that of the previous 3 rotations – written, closed-book examinations. They went further to correlate between GPA (grade point average) & this examination performance.

Non-Proctored & timed, students wrote answers on blank paper & then took photos to be uploaded. Same format of questions that students were used to & that had been used previously for other cohorts.

Their findings were that students achieved a significantly **higher** mean score in **both MCQs & Essay** questions BUT a significantly **lower** mean score in **Short Answer Qs**.

The Open-Book group had significantly lower correlation between the essay scores & their GPAs (Grade Point Average) (Grade Point Average) than the 3 previous traditional groups. However, correlation between the MCQ (Multiple Choice Questions) items & Short Answer Q scores with prior GPAs was not statistically significant. This might show that students with lower GPAs may benefit more from the open-book format such that they are able to perform better on these items than prior GPA predicts.

Their students would have preferred to sit a closed-book examination (62.2%).

Their study shows that when it comes to adjustment of pass scores during an open-book format – adjustments up the way for Essay & MCQs may be needed & adjustment downwards for Short Answer Qs may be the way to go for future iterations of the same assessment.

Thought: Might certain question types/formats benefit from being delivered in an openbook format?

From a **student's perspective**, might an open-book format be welcomed for other reasons? Students from King's College London GKT School of Medical Education (Mathieson, et al., 2020) published an article during the pandemic last year reviewing the feelings around

sitting exams in an open-book setting, considering the **Pros & Cons** of such a format as a future plan for their degree programmes.

The authors felt the process was a fair assessment of their knowledge, that was **not drastically different** from the historic paper-based exams, supported by analysis of data from Imperial College. King's College prepared their cohort by providing a trial-run of 25 questions using the interface they would go on to use for the summative OBE (Open-Book Examination). The interface used was the Medical Schools Council Assessment Alliance Assessment Suite (MSCAA). Students found it user friendly with options to highlight & annotate questions & to flag unanswered questions to come back to, something that is more challenging to do in traditional paper-based exams. It also prevented the opportunity for human error involved in the transfer of answers to paper computer-marked answer sheets (such as that we might encounter with our EMQ (Extending Matching Questions) paper answer sheets?). The MSCAA automatically saves answers as students work through the assessment meaning if there were to be a connection failure, then students could resume where they left off once re-connected without losing data.

The authors did remark upon the use of Google & personal notes had aided in answering some of the **simpler questions**. Conversely, questions involving problem solving & data interpretation were more challenging for students & regarded as being **more difficult to answer using Google & personal notes**. It was highlighted that, students had **had to change their revision habits from memorizing facts to learning how to use guidelines & resources** such as the BNF – feeling this was a positive change as reflects more closely to working life I.e., using these resources in a time-pressured environment.

Student misconduct remained the main concern for students, **focusing on others 'cheating' instead of their own learning & revision**. This was heightened by the competitive nature about exam results between students & reinforced further by the ranking system for Foundation Year job posts. Something we could relate to considering the class ranking for GPAs & Internships post-graduation. Students were made aware of the formal disciplinary process should misconduct be seen, & students felt the randomization of the questions in a time-pressure exam meant there was not sufficient time to consult others anyway.

OBEs are to become the staple examination format for final year students moving forward & this was regarded as a positive move. More frequent OBEs also have the power to reduce anxiety around examinations.

Thought: Might introducing OBEs from in the Foundation Years of the programme help to reduce exam anxiety for students moving onwards. And what resources could we provide to students during examinations to facilitate a more 'authentic' interaction between student & assessment when we consider life post-graduate?

Jervis & Brown (2020) had somewhat of a contrasting view as to whether OBEs were appropriate for the here & now in assessment of medical education. They too highlighted the challenges of regulating an examination delivered online to prevent academic misconduct, alluding to earlier studies (Kusnoor & Falik, 2013) that showed students are more likely to cheat if they are emotionally exhausted & have little confidence in the universities' ability to regulate the exam. They went on to suggest that the effect of social isolation on mental health & sitting exams without invigilators watching over their shoulders might incentivize students to cheat. The student authors felt that universities should not continue with assessment or teaching during the pandemic, but instead, use the medical students' skills learned to date in supporting the community through delivery of medicines to the elderly, supply childcare for frontline NHS (National Health Service) workers & supply frontline healthcare assistance within the limits of their clinical experience.

Thought: This pause in their studies might help resolve some issues on a wider scale, but what impact might this have on other cohorts?

Imperial College London ran their final year summative degree exams as OBEs during the pandemic, to their knowledge, this being the first time a medical school has delivered the degree assessment in this way (Sam, et al., 2020). They constructed the papers using the normal **SBA (Single Best Answer) questions** that students would encounter in the traditional CBEs (Closed-Book Examinations). These SBAs assess the candidate's **ability to integrate clinical reasoning & decision-making skills**. The belief was that as the questions assess synthesis & processing of knowledge rather than factual recall, there was no advantage to sitting an OBE rather than the CBE format.

The OBE exams **remained the same length** as they would have been for the CBEs & **questions were randomized** in a bid to mitigate the potential for conferral.

When the outcomes were analysed, the **median marks for the OBEs were the same as those of the CBEs for the preceding 3 years**. The average discrimination of the OBEs was comparable with that of the CBEs. The number of distinctions & merits awarded were like previous cohorts.

The team feel therefore that the previously reported concerns over the use of OBEs in highstakes examinations may be unfounded, but did allude to the conditions that 'need' to be put in place to settle those concerns:

The questions used need to appropriately **assess integration & synthesis of knowledge rather than factual recall**. A combination of remotely delivered OBEs & proctored CBEs might be best to balance the authenticity & validity of assessment of programmes. *Successful delivery of the OBEs requires having appropriate resource, platform, staff, & processes in place.*

Thought: Again, an advocate for the use of OBEs but in conjunction with CBEs. In addition, stressing the importance of having adequate resource on hand for the successful delivery of such assessments.

As a follow up to a review article comparing CBEs & OBEs as assessments (Durning, et al., 2016), Zagury-Orly & Durning suggest that the time is now to explore the benefits of using both these methods of delivery to enhance our graduates understanding & lifelong self-directed learning paths (Zagury-Orly & Durning, 2020). They propose that review & comparison of these methods moving forward could help all stakeholders involved: learners, educators, & licensing bodies.

A viewpoint that stood out from this article was that **OBEs are 'more authentic to clinical practice'** & they may allow for assessment of various transferrable skills. They asked the questions:

• Do learners have formal training on the type of resources they must seek to obtain high-quality information?

- Do learners know to apply credible evidence in time-constrained settings?
- Do learners know how to respond to uncertainty?

The duo goes on to state that these questions are faced by practitioners daily, but these are not typically taught or purposefully assessed. A point that rounds this up is that online OBEs may heighten a learner's awareness of the importance of aptly identifying & using best available evidence in clinical-decision-making, commonly referred to as **evidence-based medicine**.

Thought: The authors propose a CBE 1st part of the assessment to assess what learners 'should' know followed by an OBE 2nd part that assesses learners' capacity to search & translate information efficiently as they would expect to do in clinical practice (or whichever setting they find themselves in post-graduate): this would be achievable once/if we could answer & prepare the students as per the above 3 questions.

In Medical Teacher (Fuller, et al., 2020), the group explore the opportunities & challenges open to HE providers when it comes to assessment. They highlight issues we have faced & continue to face with regards to **BYOD (Bring Your Own Device)** & the challenges that presents may not have access to device, may not be able to support assessment platform, may be shared with family/housemates, may have internet connectivity issues, may not have a 'safe' assessment-taking environment within which to take the exam... all resulting in a **'non-cognitive' widening of the attainment gap**.

Concerns over online assessments taken by learners in their own space & on their own devices may facilitate 'cheating' behaviours? The use of proctoring software could elicit an impression for students that we do not trust them to be honest & not cheat in the first instance. They also make the point that on the back of this perceived impression, we are, the day after graduating, entrusting them with patient care. This theme is unravelled further with questions over what we fear about cheating & why we might proctor an assessment: is it our role as educators to catch & punish 'cheating' students **OR** is it that we should be supporting students throughout their studies so that they are confident that by working hard they can achieve success without resorting to deception? A salient point raised is that of asking the question – is it our responsibility to get students to realize that cheating &

graduating with incomplete knowledge or skills, means they could be at risk of experiencing anxiety & stress when in clinical practice, causing harm to patients & burnout of themselves?

The group explored the delivery of online OSCEs with remote observation & scoring – demonstrating the feasibility of such assessment methods alongside developing teaching of 'new' skills such as telemedicine & remote consulting, skills that our graduates will be exposed to upon graduating.

Overall, considering *what we keep, what we restart, what we stop & what we let go following the pandemic*, with regards to our teaching & assessment practices can be demonstrated using the following model from the Royal Society for the Encouragement of Arts, Manufacturers & Commerce (2020).



1 - Understanding crisis-response measures

RSA (2020) <u>www.thersa</u>.org

Thought: Do we consider future time-limited exams but taken remotely by students? R&omise the questions & offer close to the 'normal' time allocation that would be provided for CBEs.

(Cheung Ng, 2020) - Medical Radiation Science course: compared 50-minute strict time & any 4hrs within 24hr window: found NO evidence of academic misconduct but also other factors involved – an academic integrity course had to be taken, they used Turnitin & experienced academics were involved with misconduct committees on marking panel. Time allocation influenced by the Medical Radiation Practice Board of Australia (MRPBA) as the registering body.

Following on from Cheung Ng (2020), a session presented at the University of Westminster Virtual L&T Symposium (De Silva & Robertson, 2020) yielded the views from learners & academics on the provision of '24-hour' exams. The overall positive being that they, with organisation, **provided a more inclusive assessment opportunity for individual learners**.

Positives:

- Students able to think in depth & produce answers to a higher level.
- Can be taken worldwide, irrespective of time zones.
- Academics still able to pick out weaker students as tended to copy/paste from lecture notes.
- Students feel more at ease at home, alleviating some exam stress.
- Supports equal time to prepare.
- Allowed students with caring responsibilities/work etc. to engage on a level playing field.
- Mitigates the need to request breaks.

Challenges:

- Academic misconduct.
- Failure in what would 'normally' be assessed due to the sudden pivot to online delivery.

- Students not practised at taking exams in this format.
- Connectivity & IT issues.
- Academic/Process support for the full 24 hours.
- Living conditions for students do they have a suitable environment to sit the exam?
- Some concern over greater effort needed in the marking of online assessments new to staff.
- Students with exam stress faced 24-hours of this instead of the regular 2–3-hour window (i.e., more time detrimental for some).
- Lack of exam process information & practise attempts for students.
- Students with added support needs requiring alternative support frameworks & disadvantages re change in exam delivery format from the norm.

Thought: We have been very pro-active with an open dialogue with this year's cohorts leading up to the exam season. It might be beneficial to survey the students & staff in the post-exam period to ascertain their views, feelings, & feedback on the exam process as they have experienced.

A team out of Eastern Illinois University (Stowell & Bennett, 2010) considered the relationship between how well test anxiety & other emotions generalise from the classroom to an online setting, hypothesizing that **moving general classroom exams online would reduce test anxiety & improve scores**. In fact, what they found was mixed depending upon the prior experiences of the learner: those who suffered with classroom test taking anxiety observed a reduction in their anxiety levels when tests were delivered in an online format, with improved scores. Converse to this finding was that those learners who experienced low test-taking anxiety in a regular classroom setting, observed high levels of anxiety within themselves when tests were moved online.

There was no proctoring set-up for either of the exam formats delivered.

The group made assumptions that the increased online exam anxiety may have been due to having to log in to the exam management software, relying on the technology working, having the extra responsibility for monitoring themselves to avoid cheating & being unfamiliar with online testing, with the point alluded to regarding the reduction in memory cues from classroom-based exam sitting that offsets any potential gains in their scores – context-dependent memory effect (Godden & Baddeley, 1975). Conversely, they suggested a number of possible reasons why online delivery may enhance student performance: escape from classroom/lecture hall cues that trigger anxiety, learners can take exams in a 'suitable' low-trigger environment, control over when & where they take the exam,

Thought: With this observation in mind, how could we best support our learners already enrolled in the programme, when it comes to the transition to online assessment delivery – in order to keep the attainment gap as narrow as possible.

The team out of University of Groningen Medical School in the Netherlands (Westerkamp, et al., 2013) considered whether there is a relationship between **students' search behaviour** – **using references or not when answering a question** – **during open-book tests & their test scores**. They looked at search behaviour & performance in 2nd & 3rd year students enrolled in their programme finding that they spent between 5 & 4.3 minutes on answering an open-book question respectively. Findings showed both 'well' & 'poorer performing' students often consulted their references.

Overall findings & considerations:

- No correlation between the time spent answering questions & test results.
- Experimental settings provided extra time to answer open-book questions, with students using much of this extra time to answer the questions.
- Similar findings supporting earlier study that students who had prepared for openbook tests in a 'deep' way, took less time to answer questions – theory: restricting open-book test time could stimulate students to prepare in a deeper way.

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- Taking this point further, as ALL students tended to use their references to answer ALL open-book questions, this suggests (as per previous studies) that students prepare less for open-book format tests & rely more on their references in place of independent thinking.
- The group didn't look at the quality of the reference material searched by students, with an important point to consider being that knowing what information to search for & where it can be found are important abilities when answering open-book questions.
- The 3rd year students spent less time answering the questions, possibly due to their prior experience with open-book tests OR perhaps as they had a greater understanding of where to source the information required to answer?

Thought: Does giving students more time to answer questions than the traditional 'norm' lead to questioning of the answers provided & possibly reduced attainment? It would be of value to have view of where students reach out to, to source supporting information & resources to answer open-book assessments if we are to consider using them in future delivery.

The Advance Practice of Nursing team out of Indiana State University (Johanns, et al., 2017) looked to compare OBE & CBEs – hoping to evaluate the effects on development of critical thinking. They completed an integrative literature review to identify several factors that are instrumental in determining which type of exam offers the greatest benefit in cultivating Critical Thinking (CT) skills:

- Examination preparation.
 - Students experience deeper processing when prepping for CBEs.
 - General impression is students prepare more so for CBEs than they do for OBEs (although no strong evidence to suggest this is the case).
 - Study showed students often felt more confident about taking an OBE as they would have access to materials to help them complete answers.

- A study by Block (Block, 2012) found that students spend more time looking for & researching the answers than they do writing a quality answer.
- Use of rote memorization vs active learning.
 - Opponents of CBEs argue that the primary focus for students approaching these exams is storing of information for quick retrieval – with rote memorization facilitating surface learning.
 - **o** CBEs students leave studying to the last moment, tending to cram.
- Intellectual engagement.
 - In contrast, OBEs don't have the same element of rote memorization, allowing the learner to apply what they've learned in a more meaningful way.
 - It has been highlighted elsewhere, in order to perform well in OBEs, learners still need to know where to search for & find the materials to support answering of the question, so there still needs to be baseline knowledge (can't have one without the other scenario).
 - Other studies (Myyry, 2015) (Stowell, 2015) demonstrated that there was increased learning associated with OBEs, with this format assessing higher-level thinking such as synthesizing & evaluating information – deeper thinking = deeper understanding.
- Simulation of the working environment.
 - OBEs simulate the professional environment.
 - Impossible to know everything, but important to know where to go & source the information you require to solve a problem.
 - Life skills expected by employers include use of computer applications, internet research, demonstration of CT, ethical & social responsibility, communication, & professional development skills (Stowell, 2015).
- Use of higher order thinking skills.

- Studies haven't found any significant difference in performance between the two types of tests (Durning, et al., 2016).
- Stowell, 2015) found a slight advantage in test scores for items at recall level, but no advantage with items requiring higher-level reasoning.
- Reduced anxiety & improved student satisfaction.
 - A primary motive for implementing OBEs to reduce test-taker's stress & anxiety.
 - Less stress achieves greater performance observed in some studies.
 - Students prefer due to more flexibility location & scheduling an due to ability to access materials that support their attempt at answering questions.

Overall thoughts:

- Both CBEs & OBEs have potential to develop different skill sets in students:
 - CBEs enhance students' test preparation & foster deeper-learning approach (Block, 2012) (Durning, et al., 2016).
 - OBEs more engaging, 'real-world', challenging learners to critically analyse & synthesize materials.

Thought: Are we already introducing students to OBEs & collaborative assessment early on in the curriculum? How best could we use these approaches as a mixed method of assessment for our year groups – considering question types & what we are actually looking to assess?

APPENDIX: E

BVMS Away Day Session 1: Open-Book Assessment



1. Did you understand the concept of OPEN-book assessment...



2. Consider the following statements regarding OPEN-book assessments



3. What are your main concerns (if any) when considering a move to OPEN-book assessment?



- 4. Do you feel your subject area lends itself to the use of OPEN-book assessment, if NO why?

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 Latest Responses

 "Potentially yes although the basic information needs to be memorised"

 Responses
 "Yes already elements used but keen to develop further"

 "I think so, but will definitely need time and head space to think about...
- 5. Considering BVMS 1-4 Summative Assessment: I would like to see OPEN-book assessment...





6. Considering BVMS 5 Summative Assessment: I would like to see OPEN-book assessment...





Would you be interested in a follow-up session to support you in creating OPEN-book questions?





8. What other elements of OPEN-book assessment would you like to see covered in future sessions?



9. How useful have you found the session overall?

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Responses

★ ★ ★ ★ ☆ 3.71 Average Rating



APPENDIX: F

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