

“Developing Digital Content for Teaching in online and hybrid modes of delivery”

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Introduction:

Recent events around the Covid-19 pandemic have seen institutions across the world having to review their teaching approaches. Most appear to be actively seeking ways to comply with government and World Health Organisation guidance on social contact and distancing whilst at the same time attempting to maintain teaching quality and impact with a view to maintaining high levels of student experience and satisfaction.

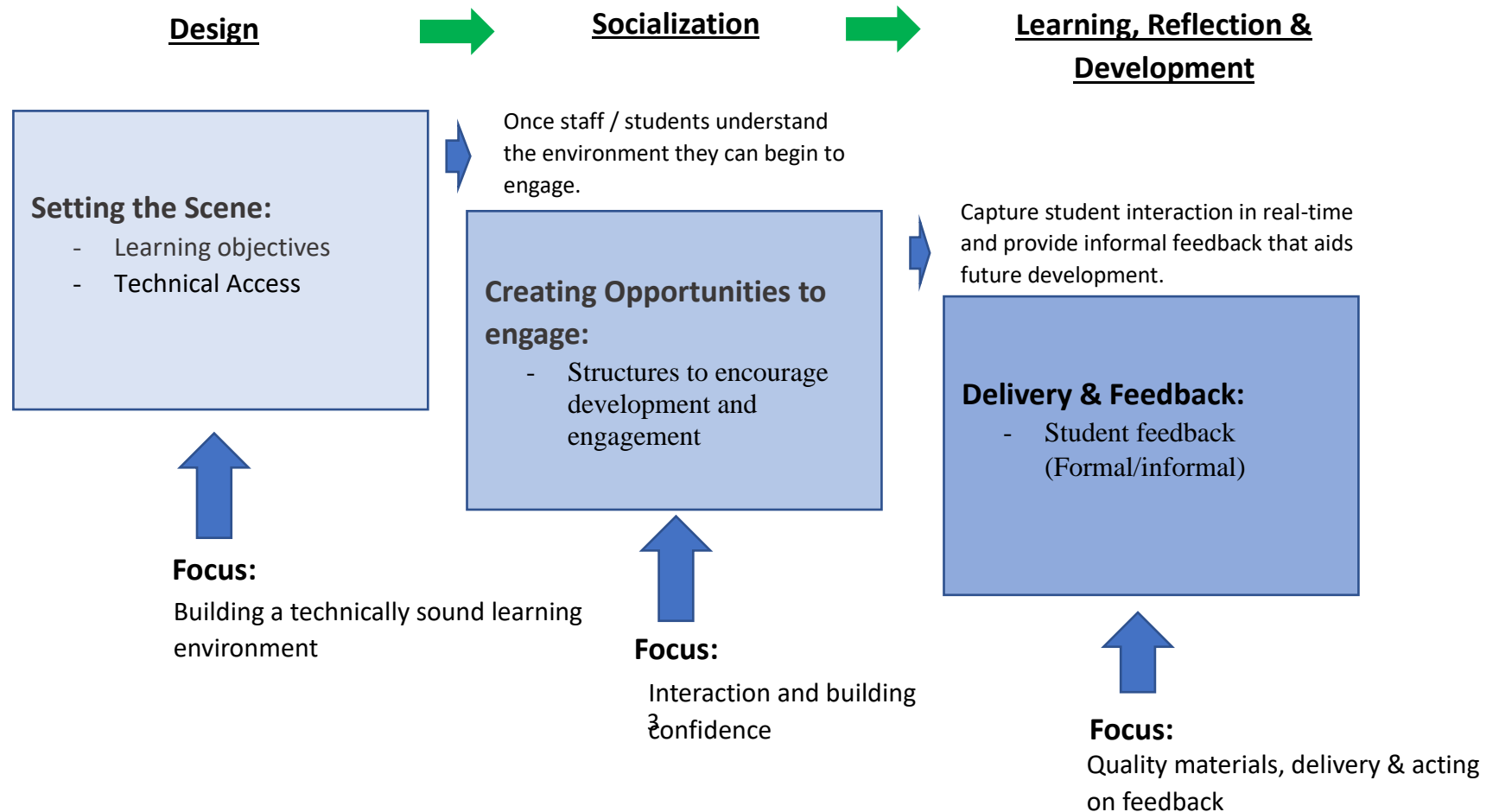
A recent British Academy of Management webinar held in June 2020, of which this paper is part of the output, highlighted the global nature of this issue with ninety-seven academics, from fourteen countries represented at that webinar.

Recent discussions in the academic community, the media and indeed government briefings on educational provision have discussed a 'hybrid' teaching environment where on-line teaching processes are combined with the face to face teaching opportunities available to institutions.

This paper proposes a hybrid teaching model designed to offer structure and support to planning for academics preparing for a hybrid model of delivery. Our model then leads into practical suggestions and advice on teaching practice that we hope will be of use to colleagues around the world who are seeking support in the design and delivery of hybrid teaching materials.

Developing Content for a Hybrid Environment: Introduction to “Hybrid Content” Framework

Based on a synthesis of various online, distance, and remote teaching literatures, and combined with our own personal experiences of online teaching pre and during Covid-19, we have developed the below “Hybrid Content Model” as a guideline tool for academics planning and developing teaching content for hybrid modes of delivery. The model outlines three core considerations: (1) Design, (2) Socialization, and (3) Learning, Reflection and Development. Each stage has practical implications for the choice and structuring of activities. In our discussion of each section we try to provide support and guidance that can be used across different subject disciplines.



Phase 1: Designing the Module: Setting the Scene

Designing a module in an online learning environment is different to a traditional campus-based module with face-to-face interaction.

Scaffolding learning

With the myriad of online products and packages available it is possible to become overwhelmed or confused about how detailed and innovative to make the online classroom. It is essential not to do too much too quickly, or to use many different tools and techniques just because they are available. Instead, the online classroom should be structured to ensure that learning outcomes are met in a relaxed, enjoyable and interesting way. It is important to remember that just as students are learning from the course content, they are also developing new skills in communication, collaboration and technology as the online module progresses (Simpson and Bolduc-Simpson, 2010). Therefore, instructors should allow for this learning process and should build in technology and innovations that are intuitive, transferable and reliable in order to provide a satisfying learning experience.

Valentine (2002) highlights that faults or break-downs in technology can lead to frustration and demotivation which may have a knock-on effect in the quality of learning experience for the student or even a whole class. This assertion has not changed and, with the complexity of new technology and the variety of options available, this is even more important. With this in mind, it is incredibly useful to scaffold each week's activities, building on prior learning. The first couple of weeks of the module will introduce the format of the online class, the technology being used, expectations of the student's role and module content. Scaffolding can also be assisted by using formative assessment to familiarise students with the format of the online class.

Practical Tips:

- Technical Access is generally a function delivered centrally by a University. Institutions differ in their technological infrastructure. It is important to clarify what is available to staff and students, and for what period of time.
- Motivation to get involved: Welcome videos recorded and posted online remind the students that you are human, passionate about your subject and that the subject itself is interesting.
- **The key here is to help students get to know you, and where to come if they have questions or are confused. How you act in these early phases sets the benchmark for the rest of the module. If students feel confused or that their questions are not responded to, there is an isolating effect that can jeopardize the future learning experience (see table at end of this section for summary of ideas and examples).**

Asynchronous vs Synchronous

Asynchronous delivery allows time for students to reflect on their learning and to organise their thoughts. It also allows for time to navigate the technology if it is unfamiliar and absorb learning. It's particularly useful for students who face a variety of barriers to learning in traditional classrooms, for example international students who face challenges if they are learning in a second language, or those students who may not be familiar with online learning environments. Moreover, for those students who are more familiar with some online technology, but are less confident sharing their thoughts and opinions in face-to-face groups and seminars, asynchronous delivery allows them a more thoughtful and less pressured space in which to engage in the learning environment. Asynchronous tools would usually include discussion boards, to provide students with an interactive place for considering weekly topics. Here, students can also learn from each other and engage in meaningful conversations which can be monitored and facilitated to ensure they stay focused on topic (Comer and Lenaghan, 2013). Additionally, you could use interactive exercises to learn key weekly concepts, short videos or self-assessment quizzes.

Synchronous elements, are increasingly popular with students, in order to gain a more 'authentic' and 'personal' feel to their learning experience. Synchronised seminars through online platforms such as MS Teams and Zoom allow students to see each other in real time and interact in a more familiar way. However, from a facilitating perspective it is much more difficult to assess if students remain engaged and on topic in these settings, and they can often move quite quickly so that the usual classroom control methods are not as effective. It can also be more challenging for those students with barriers to learning to interact in a vibrant online video meeting. Therefore, it is preferable to use a combination of both synchronous and asynchronous methods to engage all members of the class and provide a positive learning experience.

Practical Tips

- Setting up an informal discussion Board or MS Teams channel and asking students to add a bio of themselves is a way of generating early engagement in a module through an asynchronous approach. As this is not a live activity, it gives students the chance to complete the task at their own pace, within a general period of time.
- You should be open and responsive to e-mail questions in this early stage or you can use and encourage students to use any Q and A facility that you might have on your institutions virtual learning environment to answer questions.
- **Whether synchronous or asynchronous the set-up and initiation of the module has to be instructor-led. This should be designed from the start and enable students to engage with the module in an interaction manner from the start. Discussion boards are a great platform. Activities that encourage reflection and articulation help students feel part of their learning experience.**

Managing Expectations and Clear Communication

The key to achieving a positive experience in online or hybrid modules is to clearly communicate what is expected from students and what they can expect from the facilitator from the very beginning. It is really useful to use module handbooks or guides to map out what is expected from students each week.

Clear information dissemination, a well-structured learning environment and good time management are essential. Classes must be well-structured to offer the best possible guidance and support for students. It is important to set out the sign-posts for the class of key activities throughout the module and creating resources such as a "To Do" list for students is incredibly helpful at the beginning of each week. Teaching styles and information exchange also must be rethought and adapted in an e-learning environment (Valentine, 2002).

Online platforms provide a new type of learning construct and a move away from the traditional pedagogy to a new student-led focus which must be adopted to make the experience meaningful to students (Ally, 2008). In addition to teaching style, a new type of time management skill must be adopted, as Caplan and Graham (2008) note, as it does initially take more time to develop good quality online resources. Overall, it is the combination of these elements which provide a cohesive, straightforward and valuable learning environment.

- Weekly guidance for tasks
- Setting Clear Learning outcomes
- Don't make assumptions
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Preparing online content requires the teaching team to consider the broader student learning journey, relative to the learning objectives of the class. It should also consider the more holistic aims of the module, and programme.

Practical Tips:

- **Outline and make accessible the formal structures of the module as you would in a face-to-face mode of delivery.**
- **Explanation is key. When delivering online, you have to explain your process and module design more than with a face-to-face encounter as this is being more critically appraised.**
- **Ensure the teaching team are on the same page. Staff training might be necessary and staff should be considered co-creators in the online delivery design.**
- Being consistent is key. Teaching team need to be synced in terms of both learning objectives and delivery mechanisms. This needs to be designed, explicit and enable students to see *what* they are going to learn and *how* that learning will be structured.

Setting the Scene: 8 Key Steps to Designing the Classroom Prior to Teaching

The table below provides a summary of different actions that we consider essential for the 'design' phase. Examples are provided based on our own experience. After this we outline a basic "traffic light model" that can be used to design and implement activities of varying times and intensity. Both the table below and the traffic-light-model should be used together to (a) conceptualize activities that achieve essential actions; and (b) structure it in a way that is scalable depending on group dynamic.

Step	Action	Example
1	Use the Handbook to provide a detailed Guide to the Module	In addition to information about the module contents, the handbook can be a valuable tool in setting out clear learning outcomes, and illustrating how the module will be delivered. This can act as a road map for students as they navigate the hybrid classroom.
2	Create 'How-To' Guides to help students to navigate the online learning environment	Short guides can prove invaluable for addressing those areas where students need the most support such as how to answer a discussion question or a clear demonstration of how to use a new technology. It is essential not to make assumptions about the level of technical ability of students. Screen shots word documents or short videos all prove helpful to providing advice and support remotely. These guides can also provide links to other campus based technical support.
3	Divide the learning environment into manageable weekly sections	Decide key learning for each week and where synchronous and asynchronous learning will take place. You are then able to map the progress of the module and the student's learning journey considering where best to divide face to face and online learning.
4	Decide which learning technology is most appropriate for each week	Look at the module as a whole and manage student workload. It is important to scaffold learning building each week's complexity of task. Once students are familiar with the online space, more advanced interaction and group work can be used. Create space for students to learn new technology and navigate the online learning environment, this can be through less complex tasks via informal discussion boards or online quizzes in the initial weeks until students are more comfortable to take on more advanced learning or assessed tasks.
5	Provide space for regular communication	Build in communication forums to the online space. Notice boards and announcements disseminate updates and information regularly. Learning remotely can sometimes feel isolated so it is important that students feel connected. You can also set up FAQ's documents and informal discussion boards to communicate and help manage students learning and expectations.
6	Build in opportunities for feedback	When building the online classroom, it is beneficial to set up opportunities for feedback at regular intervals. This will set up the infrastructure for the later stages of Socialisation and Learning, reflection and Development to take place. Technologies such as

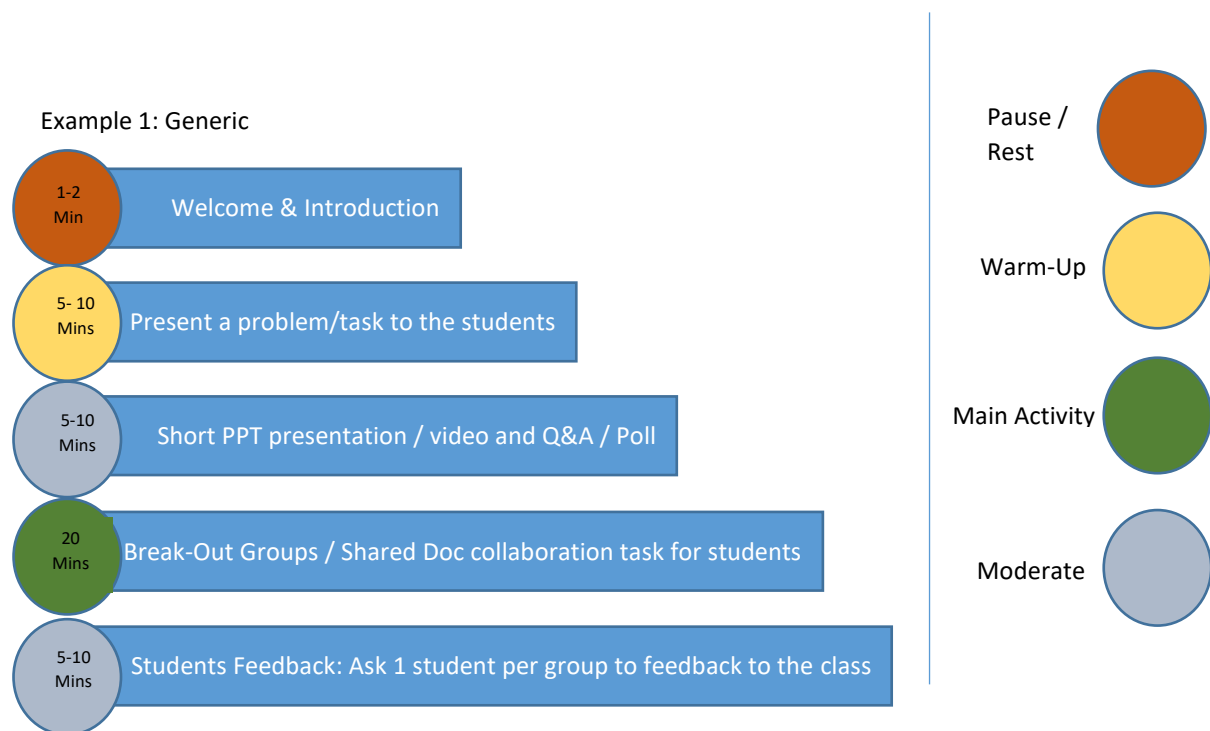
		“Pollanywhere” or “Mentimeter” are a really simple way to integrate these interactions.
7	Create a cohesive teaching team	It is really important that all members of the teaching team are aware of the technology and the processes being used and can help facilitate the students experience.
8	Welcome the students	<p>While this might seem an obvious way to start teaching, however providing early communication before the start of the module on a forum/noticeboard/Announcements online page, is essential to beginning to create a community feeling and setting the scene for the weeks to come.</p> <p>You can introduce module contents and even a provide short bio to help students to being to engage with both you and the online environment.</p>

The activities outlined in the above table are considered essential to the design phase. These can be implemented in a variety of different ways, to which we have provided some general examples that we feel can be applied different disciplines, and to different student groups. How to organize these activities is also important, and it is to this point that we now move.

Traffic Light Model

The online environment can feel isolating. Instructors and students generally reflect that engagement times per activity need to be shorter, and the need to re-engage is important, particularly during synchronous activities. The combination and interplay between synchronous and asynchronous content plays a significant part in maintaining positive engagement and learning, however so too do the types of activities and their position in the overall design of the session.

We take the approach that a class should consist of four key stages: (1) Warm-Up activities, (2) Main activities, (3) activities of moderate intensity; and (4) regular breaks. These 'stages' of a session can be synchronous or asynchronous, and can be repeated several times in a particular session depending on the scheduled time of that class. The important thing here is that consideration is given to dividing sessions up into smaller stages that can be ordered to create more positive, engaging learning experiences.



The above outline provides a generic example. 'Warm up activities' might consist of a short burst of content – i.e. a video for a couple of minutes, a newspaper headline, and piece of data etc – to get people thinking.

'Main activities' should ideally be student-led. This requires structure and design work from the instructor to pre-determine groups, tasks and how the student-led activity feeds into the overall session. Different platforms have different strengths that help with this. For example, MS Teams has a number of shared document functions through the Office360 suite. There is also a 'live chat' space where students can interact through short messaging. Zoom has 'break-out rooms' enabled for paid subscribers, enabling you to send groups to different spaces. Similarly, MS Teams has a 'channel' function that specific students (i.e. a pre-determined group) can be assigned to).

'Moderate' activities generally either facilitate input or enable students to feedback. This might be a group feeding back (after a main activity as per the example) or it could be an individual contributing have previously engaged in a task or case-study. If a case study was assigned asynchronously the feedback activity could be used at the start of the session, with a 'warm-up' being a quick synopsis of the pre-assigned case. In terms of input this might be an asynchronously designed 5-10 explanation of a particular theory and example that can be pre-recorded.

Practical Tip: If you are recording a short 'moderate' recording that introduces and illustrates a particular theory try not to link the presentation to other parts of the session or a very time-specific example. 'Input' in the form of chunks of theory or literature that are recorded for asynchronous delivery can be used in multiple sessions. If they are kept 'general' it is easier to integrate them in future sessions (i.e. a revision session or future class) rather than having to re-record the same explanation several times.

Finally 'rest' stages of a session don't need to be passive. Posting a link to a YouTube video that compliments a prior or upcoming activity in the chat box and offering participants the chance to engage with that 'during the break' is a great way keeping students engaged. Alternatively, you can ask students 'to have a think' about a certain idea or topic during the break. At the start of the session the 'rest' period could be used to just introduce the session and welcome participants.

Phase 2: Socialisation: Creating Opportunities to Engage

Once the technical solution has been 'designed' the next stage of the model is to build and deliver content that will actively encourage students to participate in the learning opportunity and to build their knowledge and understanding of the topic, we call this socialisation.

Interestingly, many of the questions raised at the BAM webinar were linked to student engagement and what practical steps could be taken to encourage it. The experience of the authors is that student engagement can only be more fully achieved and maintained if effective socialisation is achieved first.

The goal of socialisation is simple, at the end of this phase of development a hybrid culture of trust and commitment to learning between faculty and students is established. This is achieved when students want to engage and contribute to their learning via the module and staff feel able to encourage students to do so.

In many ways this hybrid culture is similar to traditional face to face classroom management cultures where teachers establish their credibility and competency with students and students begin to trust their tutors and understand the value and relevance of the subject they are being taught.

Socialisation in the hybrid model takes place on two levels, firstly by each individual student being confident and able to engage with the module content, learning and assessment activities. The second level of socialisation occurs when students' are comfortable and able to work together in groups to achieve the module learning objectives.

Tuckman and Jensen (1977) emphasize the importance of forming small groups/teams to support and encourage development. The key to this is allowing students to get to know each other. In our experience, using the early stages of online seminar allows students to socialise by introducing themselves. Online quizzes and icebreaker sessions also work well here. In large class sizes this is difficult, but not impossible. Chat functions embedded into platforms such as Zoom and MS teams can be a good way for people to start introducing themselves while the session begins.

Virtual Learning Environment: The online discussion board allows for a more constructionist approach to teaching, as students actively engage with the material and content and concepts are socially constructed and the faculty acts as a facilitator to guide and enhance discussions. Furthermore, this offered additional opportunities for feedback. It is therefore essential to provide tasks and structures that foster student's interaction and engagement.

Identifying ideas for teaching content can be time consuming and also difficult to test and validate in a short space of time. In constructing content some basic rules apply and authors need to make sure activity is well explained and simple to follow. Outputs should be easy to produce and students' need to see the value and benefit of completing these tasks. Other considerations to be taken account of are a students' ability to access a range of platforms and devices, shy students need to be encouraged and self-confident ones need to be managed so as not to dominate the exercises.

Practical Tips:

- Opening the online classroom 15 minutes before the class also gives students an opportunity to engage and chat as they would perhaps do in a traditional physical environment.
- An additional tip is to post a question in the module pages that students can answer and then discuss between each other. For example, ask students to think of the role of marketing (or its main pillars) in a business and what advantages it can bring. Linking this to an early chapter of a core text book or even a first lecture can work here as well.
- **The key to this stage is to build in opportunities to develop the hybrid culture and allow students to engage with each other and the faculty so that they feel part of the class. This varies between different cohorts, sizes and learning outcomes.**

Applied Example of the Socialization Phase

The table below sets out some of the approached we have used in the second (socialisation) and third stage (learning, reflection and development) of our three-stage hybrid model.

	Individual activity	Group activity
More Complex Tasks	<p>Complete a self-diagnostic (learning styles for example) and reflect on the value of that exercise in terms of self-awareness and willingness to contribute.</p> <p>Set up a LinkedIn page, find, and link to other students and staff on the programme.</p> <p>Write contributions to any school blog that might exist. This could be about motivation for coming to university, why a particular programme or a related current topic in the news.</p>	<p>Run a scavenger hunt / treasure hunt for the group the answers to which are all included in the school's web site pages.</p> <p>Work in teams to complete an escape room style exercise where groups can compete against each other.</p> <p>Develop an on-line society electing roles and setting out an implementation plan.</p> <p>Produce a cohort brand with values linked to whole school vision and strategy.</p> <p>Run group games like 'deserted island survival' game where teams work in groups to prioritise survival items.</p> <p>Elect course reps to provide feedback to faculty.</p> <p>Identify a set of agreed influencers the groups thinks it should follow.</p>
Simple Tasks	<p>Post an introduction to a group discussion board, which includes a bio of themselves.</p> <p>Comment on other student posts to a discussion board.</p> <p>Watch a video on their degree programme and answer a simple quiz.</p> <p>Complete an on-line checklist for all registration activity required to be completed.</p>	<p>Contribute to a group discussion on a basic subject or topic.</p> <p>Attend a virtual group meeting (welcome event or quiz night) and introduce themselves to the group.</p> <p>Complete an on-line ice-breaker exercise and find three other people with the same interests.</p> <p>Hold a cultural awareness event focused on how education differs in the cohort's countries.</p>

Phase 3: Learning, Reflection and Development: The Role of Feedback

The final stage of our model is to ensure that content designed for hybrid delivery provides opportunity for students to reflect critically on their learning through the session. While supporting the students to ‘make sense’ of new theories and perspectives in relation to different contexts and scenarios, this aspect of the session also provides a window for instructors to see how, or indeed if, intended learning objectives are being met, and how content is being absorbed.

DeLoach and Greenlaw (2010) agree that engaging students in critical reflection is a key aspect of moderating online discussions, and believe that instead of interfering in these online discussions, possibly ‘leading’ the students, instructors should instead keep comments to a minimum.

The following table identifies both individual and group learning activities to be used and encouraged in students to maximise their opportunities to learn and develop whilst on their programme. These activities are not divided into simple and more complex tasks as used above.

Individual Activity:

Group Activity:

<p>Establish timetable of taught sessions and submission deadlines.</p> <p>Understand and master the various assessment formats (reports, essays, reflections, presentations etc.) used on the programme.</p> <p>Attend both asynchronous and synchronous taught sessions. Consider marks awarded for attendance and contribution.</p> <p>Develop a learning portfolio including lecture notes, seminar completion tasks and revisions sheets.</p> <p>Actively engage in module discussion boards and blogs.</p> <p>Activity contribute to relevant external blogs and discussion pages.</p> <p>Developed strong skills in on-line source identification, use and evaluation. Understand journal quality mechanisms like the ABS guide.</p> <p>Interact with Academic Advisor and Module Leader Advice.</p> <p>Use written English support systems. Most institutions through their respective library and</p>	<p>Activity engage in all group work playing a full part in all activity. Students can be encouraged in end of module reflections to rate themselves in terms of their engagement and the value of it in developing knowledge. Module Leader consideration might be given to awarding a student a mark for group activity contribution / engagement.</p> <p>Students to use diagnostics like Belbin Team Role Theory when setting up groups to understand their potential best role in a group activity.</p> <p>In newly established groups, encourage students to recognise and make time for the progress through the various group forming processes such as Trackman’s Team Development Model and Luft’s Johari Window Self Awareness model.</p> <p>Offer for review templates for good and poor practice and group activity to comment on both approaches.</p> <p>Apply a theory for examples PASTLE or SWOT analysis to a known current issue. Helps to develop learning conceptualisation and group discussion. Model answer can then be provided.</p>
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<p>language support centres have access to resources in this area.</p> <p>Follow an influential non-academic expert to track and reflect on contemporary industry examples. This will help to contextualise learning in understandable ways. Setting up a student blog is a great way to do this.</p> <p>Attend extra curricula activity linked to academic skills development such as virtual networking events.</p>	<p>Work on group coursework projects with a group presentation as the assessment. Encourage peer assessment of individual's student attendance and contribution.</p> <p>Case study reviews and group presentations on findings developed.</p> <p>Mirror Group Assessment centre activity to encourage development of employability skills via team games activity.</p>
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As we highlighted in the 'design' stage of our model, it is important to build in opportunities for students to reflect and practice their learning during the module session. We can often feel as though this is best done synchronously, and by asking students to 'feedback' or 'share ideas' but this is not necessarily the case.

Some tips for how this can be done both synchronously and asynchronously:

- **Use the Digital Functions:** Digital platforms (i.e MS Teams and Zoom) and Virtual Learning Environments (VLEs) have a number of great functions that allow students to reflect and share insight into their learning experience away from the spotlight of the live synchronous session.
- **Feedback Asynchronously for detail:** Asking students to feedback 'after class' using the chat function and discussion boards can support a range of different learning contexts. Rather than being 'on the spot' in the live session, they can share thoughts, pictures, photos and files through different media channels that will help illustrate their learning experience and the ideas generated.
- **Zoom Out:** For synchronous sessions, 'polling tools' like 'Mentimeter' or 'Poll Everywhere' can be used to get anonymous feedback during a live session from a slightly more 'zoomed out' perspective. This can be useful to get a overall picture of how the session has gone and what students have engaged most with.
- **Capture and Reflect:** Online tools and platforms provide an opportunity for instructors to monitor student progress and view their work, ideas and learning much more than the traditional classroom. Shared documents are a great tool for understanding group dynamics, and assessing the intensity and consistency of student engagement in certain activities.

Summary

Our model is designed to help instructors design, structure, deliver and assess the development of content for hybrid modes of delivery. Although our model is split into 3 parts, the elements are designed to be considered together. You have design activities to facilitate socialization, and reflection, for example.

At the core of our approach is a commitment to ensuring that students are provided with all the necessary information about their module, and the specific design of the module, from the start. This has to be far more explicit than in a traditional classroom as the environment online is far more dynamic. This is also however a great opportunity for students to showcase their talents, present their ideas and learning. It is also a tremendous opportunity for instructors to teach through the mediums that management and business school graduates will use in 'the real world'.

Wherever you are in terms of experience, and whatever level you teach, our core recommendations are as follows:

- **Understand your Virtual Learning Environment.** Take note of the tools and resources you have access to. Explore what they can do and think about them not just in terms of facilitating your content, but also in the skills and attributes that they develop in students through their use.
- **Take a design-led approach.** Inclusivity doesn't just happen. The module, inherent content, opportunities to socialize and reflect must be designed from the start, and made explicit to students. Keep this simple and consistent. You don't have to use every new tool in the same session. Zoom-out and take a holistic view of the module and what you are trying to achieve in terms of those foundational learning objectives.
- **Personalisation:** Ensure that you think about your students in both the 'individual' and 'collective' sense. Recognise that we all learn differently. Give students a choice in how they feedback. In the classroom this is often limited whereas digitally there are a wide range of options. When talking to students online, use their name – it's on the screen!
- **Think 'Platform' not 'Container'.** Combining the digital world and the campus experience connects our different worlds. This should be seen as a platform for learning, rather than a container where all the answers can be found.

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