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a cross-cultural analysis of the use of the  
One Minute Paper before and after the  
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# A very different time and place: a cross-cultural analysis of the use of the One Minute Paper before and after the pandemic.

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## Abstract

Using focus groups with students studying the same module in the United Kingdom and in the Maldives, this study provides new insights in to the application of the One Minute Paper (OMP) and how it is perceived to work. The article explore issues in relation to using the OMP prior to the Covid-19 pandemic, when it was used in the UK to support face-to-face delivery, and then post the pandemic, when it was used to support online delivery in the Maldives. Student perceptions are captured through focus groups while lecturer perspectives are captured through unstructured interviews. The study compares and contrasts results from using the OMP in different physical and cultural teaching environments. Thematic analysis is used to construct a conceptual cross-cultural model of the OMP. The study finds that the OMP was valued by lecturers and students in both cultures and when used to support both face-to-face and online teaching. Value is created via the three core mechanisms of connections; critical thought and active engagement; and environmental context. These three mechanisms were influenced by twelve contributory factors, many of which are interlinked. The main cultural differences arose because of the variation in the profile of the students which influenced delivery of the module. A key finding of the research was that there appeared to be a number of additional benefits of OMP when used in an online environment. These included allowing students to backfill knowledge when their internet connection dropped; supplementing for informal communications which take place around the classroom, replacing the loss of visual cues used by the lecturer in formative assessments; and potentially most importantly following the Covid-19 pandemic allowing lecturers to speed through the learning cycle of having to teach online.

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## 1. Introduction

In recent times, the higher education (HE) sector has increasingly become global with many Western Universities either creating international branch campuses or delivering educational experiences through transnational education agreements with international partners (Langford, 2020). This means that international students can have the option of studying for the same degree either in their home country or by travelling abroad to study at the host university. The obvious incentive to the international student of studying at home is the reduced costs and the increased flexibility this can offer. By studying in their home country, students are potentially better placed to continue working while studying part-time. Given that the same modules are studied in two or more locations, this can provide a rich resource for researchers to explore the similarities and differences of delivery and results between the two locations. While it is possible to quantitatively compare the summative performance between cohorts it is more challenging to explore the effectiveness of different formative assessment techniques between different cohorts.

Since the start of the global pandemic in 2020, teaching across the globe has gone through a seismic change. Material that was once taught in a face-to-face environment has almost overnight been redeveloped for delivery online. As countries become more accustomed to living with Covid-19, there has been a rebound back towards more face-to-face delivery, with many universities now adopting a blended approach to teaching. However, what is evident is that in the UK and internationally, online delivery is much more of a core part of the HE experience than it was before Covid-19 pandemic. Given the vast investment that has gone into developing systems and content to facilitate online delivery, and the potential cost savings this can offer, it is clear that online delivery will continue to be a core part of the HE experience.

Given this rapid move towards online delivery, many new and emerging challenges are yet to be faced. One of the key concerns is that online delivery can be (mis)used as a mechanism where information is just transmitted. If so, this flies in the face of current thinking where educationalist support a more dialogic approach to teaching (Cannon and Newble, 2000). Online delivery is also much more conducive to bite sized delivery (Salmon, 2012) and as such we are likely to see the

continued development of teaching materials and approaches to delivery. It also has a number of unique challenges for summative assessment which are forcing universities to revisit their assessment strategies (Hong, 2020). On a day-to-day-basis, however, with only limited face-to-face teaching, it is also increasingly difficult for teachers to gauge the reaction of students during lessons and as such formative assessments of the students can become more challenging.

The Covid-19 pandemic has been a challenging time for teachers as they are not trained on how to deliver education in an emergency environment (Winthrop and Kirk, 2005). But nevertheless Sinclair (2001) notes it is important for teachers to carry-on, as it is essential to provide a continuation of educational activity during a national emergency. This is because it provides students with a familiar routine and helps them feel that they have autonomy in their life in that if they succeed in their education they can assess further opportunities.

The One Minute Paper (OMP) is just one of a number of tools used in teaching that can help bridge this gap, opening up a direct communication channel between the student and the teacher and providing the educator with a quick snapshot of students learning. Soetaert (1998) suggests that at its best it is a diagnostic and formative student learning assessment technique which has become aligned with the philosophy of continuous quality improvement. Indeed, previous studies report that the use of OMP in teaching can help students learning by building a connection between their prior knowledge and key ideas (Anderson and Burns, 2013). Stead's (2005) assessment of OMP was that there are sizeable benefits to both students and teachers, particularly for the limited investment. However, Whittard (2015) suggested that to maximise the potential sizeable benefits then considerable investment in time by the lecturer is required.

Although a body of research has been done in to the effect of the OMP, of which there is almost unanimous support for the benefits of using the OMP, relatively little has looked at its use when administered electronically. To the author's knowledge, there is also very little evidence of its effect when used to support online delivery and none that relate the difference of experience when using the OMP internationally.

In this paper we first explore the student perceptions of the effectiveness of using the OMP in support of one economics module taught to two student cohorts, one in the UK and one in the Maldives. We then examine the lecturers' perceptions before synthesising the results. This study provides three core insights in to the effectiveness of the OMP. First, it provides new evidence as to the costs and benefits of administering the OMP electronically. It's novel contributions, however, are that it is able to compare the results of using the OMP in different environments. First it is able to compare the perceived effectiveness when delivering the same module in a face-to-face

environment contrasted to a totally online environment. Second it is able to compare the perceptions of its effectiveness when delivering the same module in two different cultural contexts – the UK and Maldives. This unique opportunity arose given the unfortunate events of the Covid-19 pandemic and the timing of the delivery of the modules in the two geographies. The UK group completed the module in 2019 whereas the module was taught in the Maldives from May to September, during which time strict lockdown measures were enforced in the Maldives.

In summary we find:

- The OMP is perceived to support student learning and teacher effectiveness through three core mechanisms.
  - Connections: It helped to create and deepen connections between the student and teacher which helped to improve the teaching and learning experience.
  - Critical thought and active engagement: It encouraged students to develop their critical thinking and self-evaluation skills, which in turn acted as the catalyst for greater levels of active engagement
  - Environmental context: The effect of the OMP were perceived to be linked to their environmental context; with benefits likely to be increased when used to support online delivery and when taking account of culture and institutional circumstance

In the following section we review the existing literature on the effectiveness of the OMP. Section Three describes our methodological approach and data collection techniques. Our results are reported in Section Four and their implications are discussed in Section Five. Our conclusions are then presented in the final section.

## 2. Previous Literature

The OMP is typically described as a classroom assessment technique which uses a simple questionnaire, typically assigned at the end of the lesson. This provides students the chance to directly give feedback to reflect on the day's lesson and provides the instructor with useful feedback (Davis et al, 1983). The origins of the OMP, date back to Charles Schwartz in 1977, a professor in physics at the University of California, Berkeley. Harwood (2005), reports, however, that the original ideas were popularised by Angelo and Cross (1993).

Since its inception the format and content of the OMP have been subject to numerous variations (e.g. number of questions, timing frequency, anonymity...). Given the limited time to administer the OMP, in most studies the number of questions have been kept to just two. However, in Dietz-Uhler and Lanter (2009) study they expanded the number of questions to four with the aim of further

increasing student engagement. The expansion to four questions meant that they could encompass multiple forms of active learning by requiring students to analyse, reflect, relate and generate one unanswered question. They suggest that this approach helps students to reflecting on their own learning and allows them to set goals and modify behaviour accordingly. This approach, however, does limit one of the OMP core strengths of being relatively quick and easy to complete for both the lecturer and the student.

Another variant has been on the issue of feedback and the mechanism for this. In most studies, primarily due to issues in relation to timing and to preserve anonymity, this tends to be given at the level of the class. There are, however, examples where feedback has been given at the individual level (Lucas, 2010). Although potentially this may be more beneficial for the students, the burden on the lecturer is much greater and as such it may lose some of its appeal given the increasing burden of an academic.

There is also potential for the variation in the way the OMP is administered, however for the most part this seems to be done in a face-to-face teaching setting with the OMP collected via a hard copy. Vonderwell (2004) is one such example where the OMP was administered in an online setting. The author reported that the main benefit of this approach was it created a formal communication channel and allowed the lecturer to gauge student learning and practices in an online environment.

What is clear from the literature is that there is no one standard approach to the OMP with variations occurring in question type, frequency and mode of delivery (Meehlhause, 2016). This variation is often linked to the overarching pedagogical approach, but its genesis can be traced to the constructionist movement and its use of active learning techniques (Kolb, 1984; Gibbs and Habershaw, 1989; Biggs, 2003; Brockhand and McGill, 2007). This is supported in Harwood (2005) who noted that the OMP moves students away from a passive (note taking) approach to learning and moves them towards an active learning focus.

Within the literature it is argued that the OMP encourages students to be reflective, according to Davis et al (1983), the OMP prompts learners to reflect on the day's lesson and provides the instructor with useful feedback. Black and William (1998), also emphasise the need for communication between student and teacher to be reflective such that students are encouraged to think and to express ideas. Indeed, Anderson and Burns (2013) undertook a study to determine the students' perception of learning gains when using the OMP. Students indicated that the OMP helped them by encouraging them to build a connection between their prior knowledge and key ideas.

The OMP has also been used to assess the understanding of the students. Bhila, 2020 reported that due to the feedback loop, the OMP had helped students to grasp and understand concepts which they would have failed to understand during the class session. While Lucas (2010) used the OMP to gauge individual misunderstanding and provide personalised feedback to students using email. Divoll and Browning (2010) combined the OMP with a number of classroom assessment techniques in order to develop their new concept of 'ticket to retention' which is focussed on increasing the students' ability to retain information. Campbell et al. (2019) used the OMP for brief and consistent assessment of knowledge gains in class. Brookfield (2017) reports that "even though it has been more than 25 years since Classroom Assessment Techniques was first published, the OMP is still seen as an essential tool for learner-centered assessment" (p. 101-103).

The OMP has also been used to quantitatively predict the students' final grade. Yamagisi (2016) reported a positive correlation ( $R=0.57$ ) between student final grade and number of OMP submissions, with a prediction accuracy of 29%. However, the results from this study can be questioned due to the strong correlation between OMP submissions and attendance and any subsequent effect on performance.

One of the key benefits cited in the literature is that the OMP was helpful in building trust and developing the relationship between the educator and its students (Whittard, 2015). This was supported in Stevens (2019) recent study where they suggested that the OMP was helpful in connecting with the students, allowing the lecturer to reflect on how better they can support the student learning and communicating this with the Faculty. This type of teaching emphasises an approach based on engagement requiring a two-way flow of information between student and lecturer. This cyclical flow of information provided a strong foundation for the relationship to prosper and therefore learning to occur. As Brockhand and McGill (2007, p.54) state "the facilitation of significant learning rests upon...qualities that exist in the personal relationship between the facilitator and learner". This partnership approach is further echoed in Elphick's (2017) study on encouraging the use of mobile devices through staff-student partnerships where they espouse the benefit of formal communication channels between lecturer and students working together to reshape the teaching experience.

One of the strengths of the OMP is that it is universal in its applications and is only limited by the creativity and quality of questions posed by the educator. The use and research on the OMP have been cited across many disciplines – e.g. computer science (Lightbody and Nicholl, 2013), chemistry (Harwood, 1996), medicine (Ashakiran and Deepthi, 2013), Psychology (Lucas, 2010) and English Literature (Orr, 2015). There are also examples from skills rather than academic based courses. For

example, Stevens (2019) provides insights from teaching library research skills where she suggests that the OMP is particularly well-suited to one-shot library instruction sessions.

Although the OMP has become rather ubiquitous in HE there is less evidence of its adoption in teaching economics and business. Becker and Watts (2001, p77) in a survey of 591 academic economists in the US reported that the median percentage of classes using student self-assessment techniques such as the OMP was zero. Stead (2005) in a survey of academics in York's Department of Economics and Related Studies found a similar result, recording that only a very small number of York economists have utilised the OMP. The two most popular reasons for not using the OMP was 1) that they did not know of its existence 2) the perceived amount of time to analyse the paper.

Examples of where it has been used include Chizmar and Ostrosky (1998) who undertook an empirical analysis of the effect of using the OMP on a micro portion of the introductory economics course. They concluded that OMP enhances economic knowledge, varies little across instructor and does not depend on the students' ability level. More recently assessing the effects on Level 3 Business and Economics students, Whittard (2015) reported strong supporting evidence of the benefits to both student and teacher.

Although the research has demonstrated a raft of benefits of using the OMP, it is not without its costs. A number of studies have also cited costs to both to the lecturer and students. Building on the work of Angelo and Cross (1993) and assessing the results of previous studies, Whittard (2015) produced a framework which identified three potential costs to the lecturer (over reliance on the technique, trivial/inappropriate responses and time consuming) and four potential costs to the students (viewed as a gimmick, difficult questions, class level feedback and taking up valuable teaching time). More recently Stevens (2019) elaborated further on the issue of time, reporting that many instructors cite the difficulty of finding limited class time to implement the OMP. They highlight that despite its name, the OMP can take up to three to five minutes to complete if students are given sufficient time to reflect properly.

Although the support for OMP remains strong, the operationalisation of approach is subject to much debate (Anderson and Burns, 2013). Lucus (2010) used the OMP and was able to attribute the responses to each student and as such was able to provide personal responses to each individual. This obviously has direct benefits to the individual involved but other academics question this approach, believing students are much more willing to engage with the approach on a deeper level if their anonymity is maintained. For example, Ludwig (1995) used the OMP to enhance discussion in a multicultural seminar and reported that "anonymity of responses encourages honesty and is better received than if it came from an identifiable individual" (p18). In terms of its operation, Meagher and



Whelan (2001) reviewed student evaluations by economics and business students and concluded that lack of anonymity influenced any assessment. This mirrors Jong et al. (2012) finding that when students participate in discussions anonymously, they are more likely to contribute as they feel free to express their thoughts and are less inhibited by interpersonal relationships.

In Elphick and Sims' (2017) study they report that technology is a tool that can be used to enhance practices but stresses the importance of the pedagogy of the application of the technology. Given the increasing importance of technology in teaching and learning and given the dramatic increase in online learning since the pandemic, it is surprising that there is only a limited number of studies exploring the effect of the OMP in a virtual environment. One example of this was Campbell et al (2019) who used a qualitative approach to assess the perceptions of students through use of the OMP in a master's level social work course. Their analysis revealed that the utility the students got from the OMP were focussed around a number of key themes including activity-based learning, course content, critical thinking, relationship building and connection with asynchronous material. There are also examples of how the OMP has been adapted for the use of social media during the learning process. For example Meehlhause (2016) combined the principles of the OMP with the use of selfies in an assessment of the students' skill development and retention after a library session. This innovative approach suggests that the OMP can be adapted to meet the current challenges faced as HE moves towards greater virtual delivery.

### 3. Methodology

This study triangulates three approaches to explore the costs and benefits of using the OMP to teach the same module to two separate cohorts in the UK and in the Maldives. The first method captures the lecturer perspective by interviewing two lecturers who taught the same module to two student cohorts; one in the UK and one in the Maldives. The student perspective is captured through two separate approaches. Student perceptions were primarily captured through Focus Groups (FG) for each of the cohorts. The narrative was then triangulated by comparing it with the individual student's response to the OMP which was completed during the semester. This three-tiered approach helps to provide a broader perspective of the mechanisms through which the OMP works. The novelty of the study, however, is that for the first time, this framework is applied to evaluate cross-cultural issues and given that the two courses were taught pre and post the Covid-19 pandemic, it is also able to draw insights by comparing the use of the OMP when used to support face-to-face and online teaching.

## Sampling

Two cohorts were studied; both cohorts were studying the same Level 3 economics module - this allowed for cohort specific nuances to be uncovered as the subject matter was the same. The first cohort were taught in the United Kingdom and the second in the Maldives. The cohorts were both studying the same course content and materials as the students are studying for the same degree as part of an international partnership between two universities. The first cohort consisted of 52 Year 3 Business and Economics students who were studying in the UK (40 males and 12 females) and was taught in 2019. The focus group representing this cohort consisted of six students, three males and three females, all were self-selecting.

In the Maldives there were 6 Year 3 Business and Economics students who were studying the same Applied Economics module as in the UK. This was made up of 2 males and 4 females. This course was taught in the spring term of 2020. The focus group representing this cohort consisted of three students, all of whom were female and all were self-selecting.

## Procedure

In a departure for much of the pre-existing literature which focusses on administering the OMP in hard copy format (Chizmar and Ostrosky, 1998; Harwood, 1996; Stead, 2005; Whittard, 2015), for both cohorts of this study, the OMP was administered electronically. In this study, students were required to use an electronics devise (e.g. mobile phone or tablet) to log-on to third party software to anonymously answer a number of pre-set questions. Once complete, the results were then downloaded by the lecturer for analysis.

In order to ensure consistency of approach between the two cohorts. The lecturer chose questions from the following two set of questions each week (four questions in total):

- 1a. What concepts did you clearly understand in the lecture today?
- 1b. What concepts were less clear in the lecture today?
- 2a. What did the lecturer do today that was effective and enhanced my learning?
- 2b. What could the lecturer do to improve his effectiveness and therefore enhance my learning?

The responses from the first set of questions (content types of questions) relates to the understanding of the subject matter; which in turn allows the lecturer to re-address any areas which are less well understood by that particular cohort. The second set of questions enables the lecturer to gain a better understanding of the students' perception of their effectiveness as a teacher. This then enables the lecture to reflect on their approach and potentially change it to meet the particular needs of the student cohort. However, regardless of which set of questions is asked, the effect is

expected to further develop a relationship between the lecturer and students. The importance of building relationships, and in particular developing empathy with the students, is widely recognised in the transformative learning literature (Jarvis, 2012).

For the UK cohort, the number of questions were always limited to two and were generally focussed on investigating the students' knowledge and understanding. At periodic intervals, however, these were replaced by lecturer effectiveness type questions.

For the Maldives cohort, however, four questions were asked each week; two in relation to the students understanding and two in relation to the effectiveness of the lecturer. The reason for the difference in approach taken was twofold. Initially due to the limited number of the students meaning the administration of additional questions was more manageable. Second, and most importantly, given that Covid-19 had hit and therefore the module had to be quickly redeveloped to enable it to be delivered in an online environment, the lecturer wanted to get feedback to allow them to become more effective at teaching in an online environment. For example, Whittard (2015) reports that there are substantial benefits to lecturers with less experience of (online) teaching regularly using lecturer effectiveness type questions as it allows them to 'accelerate through the learning curve' (p.10); while more experienced teachers may only ask them periodically, perhaps at the start and end of teaching each module.

In both cases, all responses were analysed and the main findings reported back to the students at the beginning of the next lecture.

Following the completion of the module, student reflections on the usefulness of the OMP were formally captured via a student FG. A qualitative methodology was employed as this is best suited for exploratory work, when the focus is explicitly on participants' situations and experiences. Guler (2013) reports that the FG is most useful and suitable when the study needs to be objectively and thoroughly analysed.

In line with Gates and Statham's (2013) recommendation for optimal group size, the UK FG consisted of six students (three male and three female) – this equated to approximately 12 percent of the total student population. Due to only six students studying the Applied Economics module in the Maldives, the focus group in the Maldives was restricted to three students, 50% of the student population, all of whom were female.

Due to the gender imbalance and the fact that all members of both FGs were self-selecting, sample selection bias is potentially an issue. As such, given that students who volunteered are more likely to be positive towards the lecturer and therefore the OMP intervention, the research team identified

and bracketed this a priori assumption in order not to skew the data collection process, but to draw upon this assumption and reflect upon it when analysing and interpreting the data.

The UK FG took place face-to-face in a private room on-site at University. The FG in the Maldives was conducted online using Microsoft teams, the lecturer was present for the first few minutes in order to introduce the interviewer and help to settle the students; the lecturer then left the virtual environment ahead of the discussions.

The FG in the UK lasted for 27 minutes and was slightly shorter than in the Maldives (35 minutes). The FGs were all recorded with consent of all members. The students were all informed that the interviews would then be transcribed, before being coded to ensure their anonymity. Once the transcripts had been coded by the interviewer, they were then released to the full research team for analytical purposes.

It is widely recognised that in a FG the interviewer is an integral part of the data collection process and therefore is a potential source of both moderator and confirmation bias (e.g. see Patterson and Levitt, 2012). In order to manage this risk, both FGs were conducted by the same interviewer who was independent from the teaching team and previously had no experience of the OMP. The interviewer was selected due to her professional and academic experience. She is a trained psychologist and an experienced health researcher who has worked on numerous qualitative research studies. As such, she was acutely aware of the potential pitfalls of the different forms of interviewer biases. Therefore following discussions with the research team, it was agreed to take a semi-structured interview approach. This would enable her to explore issues that were identified by the students as being important, as well as introduce the topics of interest to the research team. The interviewer was also unknown to the students. This was also important as this increased the students' sense of anonymity which should encourage them to be more open with their answers and therefore limit any potential for social response bias.

A semi-structured topic theme was developed based on a review of existing research literature and Whittard's (2015) model of perceived benefits and costs. It included, but was not limited to, experiences surrounding the process of responding, the types of questions, the effect on the relationship, and use in face-to-face and online teaching. Students were also asked about whether they valued the OMP and encouraged to propose developments for its future use.

Following the completion of the FG's, the lecturers of the UK and Maldives cohorts were interviewed, both interviews occurred on the same day. They were completed by the same interviewer for the focus groups and following some preliminary analysis of the student FGs. This

was done to ensure that the interviewer could introduce any specific issues that were identified by the students and which were not previously identified in the literature and through the creation of topic themes. The interviews followed a semi-structured format and both lasted approximately 20 minutes each. Both interviews were recorded, transcribed and coded prior to being submitted for analysis.

### Analysis

In this study we take a qualitative approach in order to understand the mechanisms through which the OMP is perceived to work. Qualitative research is well established in social science but can be subject to criticism for not producing generalisable results. It should be noted that the findings in this study are specific to this sample. Rather than being a flaw, this methodology allows a deeper understanding of the utility of the OMP as a formative assessment tool. Further, as this paper's focus is on exploring perceptions of the OMP, the traditional quasi-experimental approach, which typically limits its analysis to the effect of the OMP on student examination, is not suitable for this type of analysis. Consequently, the analysis in this paper combines data from OMP responses, unstructured interviews with lecturer from the UK and Maldives, and reflections from student FGs in the UK and the Maldives.

Analysis of the data was guided by the emergent FG and interview themes rather than by a particular theoretical framework. This was done in order to avoid imposing constraints on the analysis. Thematic analysis (TA) was chosen as the method of qualitative analysis, and an inductive, semantic and realist approach to TA was carried out (in accordance with Braun and Clarke, 2006). Inductive TA is explorative and does not draw upon any preconceived concepts that other research may demonstrate. The primary coder familiarised herself with the data through the transcription of the interview recordings, reading through the data and noting ideas. After this preliminary work, initial codes were generated so that the coding within this project was 'data-driven', where the themes emerge bottom-up from the data set. The codes were then categorised into potential themes. A review of the proposed themes was conducted in which the research team checked if they worked in relation to the coded extracts and the entire dataset, and then generated a thematic map of the analysis. Preliminary data analysis of the first FG took place ahead of the second FG and the second FG ahead of the interviews with the lecturer. This was done to ensure that any emergent themes were identified and explored in subsequent FGs/interviews. The data collected from the OMP was only formally analysed after the completion of both FGs and interviews.

Subjective interpretation of data is inevitably unavoidable with all forms of qualitative data. Therefore, in order to identify the main key themes it was decided that two researchers would code the data independently. The independent coding identified many of the same key themes with only

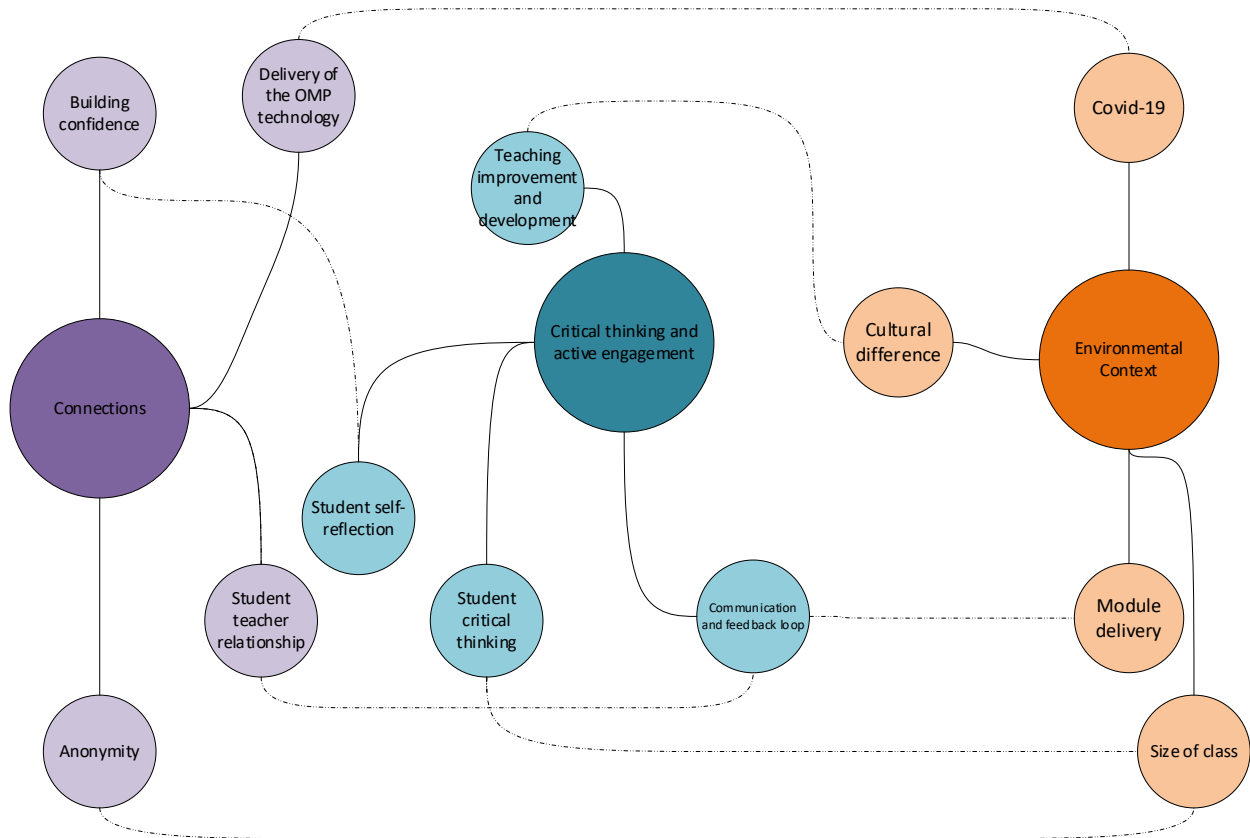
limited discrepancies observed between the two different researchers' codes. Both codes were then brought together in order that the research team could agree the final themes. Once agreed these themes were mapped out and the interdependencies established.

Given the particular methodology employed, although any results reported can only be seen as particular to the specific samples, and potentially subject to sample selection bias, the approach allows for a number of novel insights in to the perceptions of the OMP and the mechanisms through how they work. This work is of particular interest as it is able to compare the findings across various different factors. First given that the UK students had previously had experience of using the OMP in hard copy format, this cohort of students were able to provide comparative insights in to its use in hard copy and electronically. Second given that the level three economics module was taught in the UK and the Maldives, as far as the authors are aware, this study for the first time is able to compare results from the same module across two different geographies and therefore provide a number of cross-cultural insights. Third, given that the module was taught prior to the Covid-19 pandemic in the UK and post the pandemic in the Maldives, this study is able to compare the findings from the perceptions of the OMP when used while teaching the same material in face-to-face compared to online delivery.

In the next section we report the results from the students OMP paper responses, the two student focus groups and the interviews with the two lecturers.

## Results

Transcriptions of the FGs and interviews were initially coded and analysed using NVivo from which three main themes were identified – Connections; Critical Thinking and Active Engagement; and Environmental Context. Underpinning these main themes were a number of supporting sub-themes. This analysis was then used to construct a conceptual model to provide a visual representation of the mechanisms through which the OMP is perceived to work. It does this by identifying the themes, sub-themes and detailing some of the main interlinkages. It is clear that many more linkages could be mapped on to the model, but due to issues of clarity only the most important have been shown here. Figure 1 depicts the Cross-cultural Model of the OMP.



Source: Author's model

Figure 1 depicts the Cross-cultural Model of the OMP.

In line with surrounding literature, the cross-cultural model of the OMP provides further support for the importance of two central themes found in the literature which we label as connections; and critical thinking and active engagement (e.g. Stevens, 2019; Whittard, 2015). However, the cross-cultural model of the OMP provides an extension to the literature, it brings to the fore the importance of environment context. The importance of environment is in part a reflection of the cultural differences between the two cohorts under study; the increased availability of affordable technology for the students; freely available teaching software; and changes in teaching practices brought about by the Covid-19 pandemic.

The remainder of this section will apply the cross-cultural model of the OMP to explore these three core themes in more detail and to analyse the mechanisms through which the OMP is perceived to work. Where sub-themes contribute to more than one core theme, the sub-theme will primarily be discussed under the core theme which they are judged to contribute more. This was determined by the amount of data coded to each core theme. In the model the primary relationship is demonstrated by a solid line, while the secondary link is indicated by a dotted line.

### Connections:

Connections was one of the main theme emerging from the data, this theme encapsulates the significance of relationships and communication in the learning process. This theme delves in to socially constructed learning mechanisms through student teacher relationships, to intra-personal developments- through confidence building. The OMP acts as a catalyst to promote connections. Stemming from the main theme, four sub-themes were identified; student teacher relationships, building confidence, anonymity and technology/ delivery format (OMP done via app or via paper).

#### *Student teacher relationships*

Both the lecturer and the students in the UK commented on the use of the OMP as an important tool in building the relationship between them. The students felt that it:

*‘personalises the... learning experience’ and it demonstrated that the lecturer ‘actually cares about [their] learning’.*

One student commented that of all the modules they were currently studying, this was the one that they were most engaged with, and they attributed this to the lecturer’s use of the OMP.

Although the lecturers were aware of this potential benefit, from their perspective they reflected on the speed at which it enabled them to ‘build a rapport and a relationship’ with the students. This benefit was considered to be of particular importance when teaching modules in a single semester; where classes are larger and individual contact can be limited; and when there is no pre-existing relationship between the lecturer and the students.

Although the interview with the lecturer and student focus groups revealed that there was a strong relationship between the lecturer and students in the Maldives, there was limited evidence that either attributed this to the OMP. It was suggested that this may be a result of the smaller Faculty in the Maldives HE institution which would result in lecturers teaching students over a number of years and therefore already having a well-established relationship. Therefore, in the Maldives, rather than being a catalyst to build relationships the OMP can then be seen as a mechanism which can help to cement pre-existing relationships. In addition, given that all the teaching for this module was online in the Maldives due to the outbreak of the Covid-19 pandemic, the lecturer reflected that the OMP partially took on the characteristics of the more informal communications and feedback that can be had between the lecturer and student ‘after the class’.

Given that strong relationships had already been established, the class size was much smaller, and the fact that the students used other social media channels to communicate and maintain relationships with the lecturer, the benefit of building a relationship between lecturer and student was much less pronounced in the Maldives.



### *Building confidence*

While the OMP allows students to construct knowledge by moving them towards active listening and engagement (Stead, 2005), reflecting on the lecture and drafting a written response to the questions posed can also help students to build confidence. For example, ideally, from the lecturer's perspective, all students would be highly engaged and sufficiently confident to ask questions and take part in a live discussion. However, the reality can be that some students find it difficult to engage in a classroom setting and as such discussions can be dominated by just a few 'loud voices'. Potentially, in the post Covid-19 online teaching environment, this can be even more difficult given that some students choose to attend with cameras and microphones off and may be less inclined to participate in the lecture than they normally would do in a face-to-face lecture. As such, the OMP can be seen as a democratic tool to support engagement, as it can give a voice to those lacking confidence to engage in discussion and debate in the formal teaching environment.

### *Anonymity*

The OMP can help to break down barriers by providing less confident students with a mechanism to engage anonymously. This benefit was recognised in both the Maldives and the UK. The lecturer in Maldives reported that rather than coming directly to them to talk through issues, for some students 'maybe it's easier for them to write in the [OMP]', while the students in the UK reported that 'it is good interaction without picking on people'. Another mechanism through which anonymity can actually help to build connections is it enables students to see the responses from their peers. This can be done in real time as student questions are anonymously shown on the screen and/or after the event through the publication of responses. This process is helpful as it allows students to learn from each other and can be reassuring to the student who initially may believe that they are the only one struggling with a particular concept or topic. This idea was discussed by the UK students who commented that

*'you kind of see that everyone feels the same way...it's quite reassuring to see... other people are in the same boat'.*

### *Technology/ Delivery Format (OMP done via app or via paper)*

In this study, the OMP was administered electronically to all students in the UK and the Maldives. This is a departure from many of the previous studies looking at the OMP. For students in the Maldives, this was the first time they had used the OMP, however, some students in the UK had taken a module in L1 which had used the OMP which was administered using hard copy. The lecturer in the UK commented that doing it using an online format saved time and was more efficient. From the student perspective, they also commented on the time saved in administered; they commented that they just had to log-on and fill in the form, rather than wait for the forms to be handed out and

collected. They also felt it easier as they are comfortable using technology to communicate using other social media apps. Students felt that by using technology, the response rate and level of engagement with the process was likely to be higher. However, on the negative side, they did report challenges with using the online platform at times; in particular this was highlighted as a problem for the Maldives students who were being taught late into the evening and then had to

*'stay back waiting for 15 minutes after the class because the website itself was not opening'.*

From the lecturer's perspective it also saved time in terms of collating, analysing and reporting the results. It also made the process more transparent as all (anonymous) responses could easily be uploaded online for all students to read and therefore allow them to reflect on other students' observations as well as their own.

Overall, however, it was recognised that the OMP was just one online communication tools and

*'they did have other means to communicate [with the lecturer] through social media'.*

It was also emphasised that the OMP should not be seen as a mechanism to replace other forms of communications, as students much 'prefer questions in person'.

#### Critical Thinking and Active Engagement:

##### *Student self-reflection*

Students reported that the OMP helped them to evaluate their own learning through a number of mechanisms. Initially they were directly challenged to critically reflect on the subject. Insightfully, one student commented that this had led them through an iterative process of initially believed they 'knew something', but through reflection their understanding developed, deepened and changed.

The self-evaluation was also helped by enabling themselves to see where they fitted in comparisons to their peers. There was evidence of some students reporting that this was reassuring to see 'others in the same boat', while others reported that by engaging in this critical reflection it had 'woke them up' and made them change their behaviour and 'pay more attention'.

It was also suggested that because the teacher also enters into a deep form of critical self-evaluation and is prepared to make changes to content and lecture style to meet the needs of that particular cohort, then the students are also prepared to reflect deeply and make changes to their engagement with their learning.

One indirect effect reported was that it 'helped [the students] attitude towards learning' in general. The students in the UK reported that the level of reflection had transferred to other parts of their life.

“You do think about what you do and don’t understand independent of the lecture”.

While for the students in the Maldives, they reported that it had made them feel more empowered and able to shape their learning experience. As all the Maldives students were also working while studying, they appeared to value the practical examples more while the OMP provided a chance to understand the value of practical examples for both lecturer and students. For example, they reported that they used this process to suggest that the lecturer bring in a more real-world context through introducing next week’s topic at the end of the lecture. By doing so, this could then allow students who may have practical working knowledge of this issue to self-identify themselves, provide input into the lecture and take greater ownership of their own education.

#### *Communication & feedback loop*

In terms of the level of active engagement with their own learning in general and this feedback process in particular, the students felt that there were three important facets. First, they felt a bond with the lecturer. Given that for many students in the UK this was the first time that they would have been taught by that lecturer, the implication here is that to some extent the OMP would have contributed to this rapid connection. Second, as the students were all in their final year, they felt they were more likely to be active in managing their own learning and therefore *‘more likely to do it’*. Third, given that the OMP process was anonymous, the students felt that everyone was *‘willing to give whatever the feedback is’*.

Although in HE, the importance of building upon concepts and linking material together is well understood, there was evidence that the lecturers felt under pressure to deliver ‘content’ and were concerned about the time it took to revisit the material the following lecture. However, it is also clear from the reflections of the students that part of the value of the OMP in being able to revisit and link material.

*“I think it’s good because he does spend a good ten to fifteen minutes on like the workshop the day after sort of re-going over it”.*

This was further elaborated on by the lecturer in the UK.

*“It’s important to get those building blocks in place and if you don’t keep reflecting and keep going back and making those links, it more difficult for the students”.*

In any feedback loop, you need the first communication. As one lecturer put it, the OMP potentially can act as mechanism to illicit feedback from the students if ‘you don’t get any oral feedback’ during the class. However, it was explicitly recognised by the lecturer in the Maldives and the students in

the UK, that the value the OMP was that it acted as the initial feedback mechanism to a wider conversation between the lecturer and their students.

*“You have a chance to have a conversation with him about it and that only really comes about through the sort of OMP in finding out what people don’t know”.*

Although the OMP would allow the students to assess and communicate *‘what is understood and what is not’*, all students and lecturers were aware that the real value from the OMP, was only achieved once this feedback was acted upon by the lecturer. As the lecturer in the Maldives highlighted *‘if [the students] do not understand, then I can come back to it in the next session’*.

It is clear that the two-way process of the feedback loop is important to maximise the benefit to the students’ learning experience. However, the UK lecturer felt that they needed to go one step further and to directly highlight to the students when their feedback was being acted upon.

*“I would make sure that I pointed out to the students that this thing that I was doing now had changed as a result of the feedback that I had got.”*

The lecturer believed that this helped to clearly demonstrate the value of taking part in the OMP. It also further empowered the students to take ownership of their learning by encouraging them to reflect on their knowledge and critically engage with the lecture content and delivery process. This was also reflected in the feedback from the students who not only recognised the process acted a catalyst for students to reflect on the depth of their knowledge, it also enabled them to feedback to the lecturer to *‘help progress his lecturing style’*.

#### *Improvements and developments in teaching*

In the FGs, the students in both the Maldives and the UK reflected on potential developments which could improve the effectiveness of using the OMP. From both cohorts of students, when assessing student knowledge and understanding there was strong support to supplement the OMP with multi-choice quizzes. The benefit of this was that questions could be targeted directly to test challenging areas and it would also break up the monotony of answering the OMP at the end of each session. They suggested the repeated format of the OMP may have contributed to students writing *‘nothing to be improved, or that they understood everything’*.

The timing of the OMP was discussed and alternatives suggested. The issue in the UK was that as the OMP was always conducted at the end of the session, it always seemed rushed and they would have preferred to have the online OMP questionnaire open throughout, so they could respond to the questionnaire at any time during the lesson and when the issue was fresh. From the Maldives lecturer’s perspective, this approach was also suggested as they felt that if they were able to capture

the students' feedback throughout the lecturer, this may provide more insightful information which they could evaluate at the end of the session and use to inform the following session.

However, some of students wanted to go one stage further, and by suggesting that this real time feedback be simultaneously reported via a live feed. They suggested that this approach would allow the lecturer to deal with the question as it arrived. For example, one student reported that if they did not understand a part of a lecture their '*mind just kind of stuck on that question*'. They felt that by adding a real-time element, they would be able to record their question and then remain present for the remainder of the lecture. There are obviously technical and management challenges from a lecturer's perspective in doing this, but moving to a team teaching environment may allow for greater real time interactivity between the students and lecturer. This method will also be easier to be administered in smaller classes.

Environmental Context:

#### *Cultural differences*

The ex-ante expectation is that the operation and working mechanisms of the OMP will be influenced by the culture within which it is applied. In this study we are able to compare and contrast these effects by looking at two student cohorts. The first from the UK which historically has been a Christian country and whose working calendar is largely set within this context. The second is the Maldives, which is an Islamic country and therefore largely follows the Islamic calendar.

The Maldives lecturer commented on the difference of the working week.

*'Friday for us is Sunday in UK... Weekend is Friday and Saturday. Saturday is a half day for private sector but weekend for civil servants, students and public sector'*.

The difference in the timing of the weekend should have little impact, apart from the '*responses [not being] very good [at the end of] Thursday*' in the Maldives as opposed to the end of Friday in the UK. However, given that most students in the Maldives work part-time and some of these will be in the private sector, this additional half day worked by the private sector on the weekend could have a negative impact on the Maldives students' level of engagement with their studies and peripheral learning tools such as the OMP.

There did appear, however, to be a clear difference in the value, or lack of it, that was placed on anonymity. For the UK students, this was extremely important but much less so for the Maldivian students. This is potentially a reflection of the smaller class sizes in the Maldives and the fact that they already had a strong relationship with their lecturer built over many years. Therefore they felt happy and confident enough to raise issues directly with the lecturer through a variety of different

social media channels. On the other hand, the UK students were taught in much larger groups and for many they would not have ever met the lecturer before this module started. Therefore the anonymity gave them confidence needed to be open with a new lecturer who ultimately would be marking their final assessment.

#### *Module delivery (Timing/Time of class)*

The cultural issue which had the greatest impact was the composition of the student cohorts. In the Maldives, the lecturer estimated that '80-90% of the students are full-time working and then studying'. This is beneficial in terms of students 'coming with a huge depth of knowledge. From... education but also from... practice'. However, it is also challenging for the students and their work life balance as they have to do a full working day before studying for their degree. As such, in the Maldives all modules are taught at the end of the day. Therefore the lecturer reported that asking students to stay at the end of their final lesson (which finishes at 10pm) to fill in the OMP, especially if there are problems with the technology, can be very challenging. This was also commented on by the student focus group.

*'The online classes used to finish around 10pm at night and then we have to stay back after classes and then we were just so, we are getting late for dinner, we are getting late to sleep'.*

This issue was also commented on by another student who commented that 'we are working and on the day we feel really tired and we cannot focus'.

This issue was potentially compounded due to the timing of the study in the Maldives in which the first few lectures of the class were completed during the month of Ramadan. At this time of year, Muslim students fast during day light hours and hence have a sizeable meal ahead of studying. These students reported that potentially this did impact on the level of engagement with the module and the OMP process as they reported that '*we don't do classes while we are fasting. It's like right after, right when we are most tired, we start studying*'.

There was also evidence that the UK students struggled with the issue of answering questions at the end of the lecturer. As the UK cohort is primarily made up of full-time students, and all the lessons are during day time working hours, the reasons for the lack of engagement at the end of the lesson are potentially different. Primarily this seemed to be either a desire to pack up and finish early, or because they had to physically leave the learning environment to make it to another classroom ahead of the next lesson starting. The result of this for one student was that it potentially caused them to not be '*very truthful in what I didn't get... and just sort of... put something down that comes to my mind cause am just like please go.*'

There was also some evidence that a student in the Maldives manipulated answers, rather than fully engaging in the process. However, the motivation here seemed to originate from a desire to pass a test rather than to just 'tick a box'.

*'I think there is a way that students can go around the question of what did you learn in this session. Because we can just go back to the slides and just copy and paste the one minute paper there'.*

The reason for this are unclear. Potentially students may have wished to please the lecturer by 'getting the answer correct'. Alternatively, they may have seen the OMP as a type of summative assessment tool rather than a formative assessment tool designed to help them reflect and develop their capabilities.

### *Covid-19*

The biggest difference in the student experience, however, was less cultural and more to do with the Covid-19 pandemic. As the UK lecturer commented *'one thing that was different from us, we did it (the module) before lockdown, they did it at lockdown'*. This obviously had a dramatic effect on both the lecturer and the students, most obviously witnessed through the move to online teaching.

Given that most of the students in the Maldives have full-time employment and study part-time in the evenings, this loss of face-to-face contact with other students as well of the lecturer was difficult. As one student put it

*'This college degree actually is very stressful for me. I was very sad that I was not seeing my classmates. I was able to see none of my teachers'.*

Others commented that the fact of having to balance work with studying in a pandemic was 'really something hard and challenging' for them. Indeed for certain students with particular frontline jobs this was even more problematic and led to them 'missing a lot of classes'.

### *Online classes*

The biggest effect of Covid-19 was that all teaching went online for lockdown. This meant that lecturers and students had to quickly adapt to a new way of teaching and learning in a relatively short space of time. The lecturer in the Maldives commented that one of the challenges was that they were less able to get visual cues and instant feedback from the students to *'understand [whether they were] able to get through to the students'*. They commented that the OMP was able to fill this gap somewhat by providing this timely feedback. The lecturer also felt that the OMP was also partially replacing the informal five minutes of questions in the corridor that lectures often get during breaks or at the end of any face-to-face teaching session.

The lecturer also commented, that as this way of teaching was so new to everyone, that it was also helpful to her to gain an insight to the effectiveness of her online teaching methods and allowed her to accelerate the speed in which she adapted. This therefore also benefited other students from different modules who she was also teaching online.

From the students' perspective they reported that there was a good level of engagement between the lecture and students and this was somewhat assisted by the OMP. They reported that the OMP was particularly helpful at times because it allowed them to check their understanding. This was particularly important in an online setting as at times there were connection issues and the new teaching format meant at times students may zone out more than in a face-to-face environment making the material difficult to understand.

The students also reported a good level of engagement between students, however, unlike that reported by the UK students, there was limited evidence that the Maldives students were learning from each other when completing and analysing each other's responses.

#### *Size of class*

The final main difference between the cohorts was the size of the class – in the Maldives there were just 6 students while in the UK there were 52. Although the lecturer from the Maldives valued the use of the OMP, it was clear that they believed there would be greater value if it was used in the setting with more students, particularly if these students were previously unknown to the lecturer. They did, however comment that the time invested needed for the lecturer to administer and analyse the responses effectively would grow in proportion to the size of the student cohort and therefore could be a potential barrier to its use in larger class sizes.

The students for the UK also highlighted its benefit when used in larger class sizes, potentially when lecturing to over 100 students. They also commented that the OMP would have to be administered online with such numbers as they felt that it would be too labour intensive to hand out and collect hard copies. In this environment they also felt that it would be helpful to use it in a live format as this would encourage higher levels of engagement with the lecture.

#### *Secondary Linkages*

The model and the resulting analysis demonstrate that it is challenging to isolate the mechanisms through which the OMP is perceived to work. This is because many of the mechanisms are interlinked and have a subtle and nuanced effect when interacting with each other. For example, the four 'Connections' sub-themes have four direct inter-connections; two with 'Critical thinking and active engagement' - and two with the 'Environmental context' sub-themes. While the sub-themes



of 'Critical thinking and active engagement' have three direct inter-connections with the 'Environmental context' sub-themes.

A particular strength of this model is that it begins to map out the complex relationships between the mechanism through which the OMP is perceived to work. This then encourages deeper insights in to how these interlinked mechanisms work together to generate additional benefit. For example, the model shows that 'Connections' and 'Critical thinking and active engagement' are linked through the sub-themes of 'Student teacher relationships' and 'Communication and feedback loop'. There is a self-reinforcing relationship here. The feedback loop between student and teacher helps to improve the relationship, which in turn leads to more willingness to communicate and feedback to the lecturer. This virtuous circle is somewhat demonstrated in one of the comments from the student focus group in the UK.

*"we do it just because we think he [the lecturer] is a nice guy... that is the least we can do for ourselves and him"*

An example of how the 'Connections' and 'Environmental context' main themes are linked together is demonstrated by the link between the 'Delivery of the OMP' and the 'Covid-19' sub-themes. Prior to Covid-19 when much of the delivery was via face-to-face teaching which meant that the lecturer had a choice of how to deliver OMP, they could either administer the OMP via hard copy or electronically. Although the literature is unclear on this point, there is reason to believe that the connection between student and lecturer may be affected by the mode of delivery. It could be argued that the relationship is most improved when using hard copy due to the individual communication between student and teacher as it involves a physical act on both the students and the lecturer's part. Alternatively, however, it could be argued that the relationship is improved when the OMP is administered electronically as the lecturer may be better able to analyse all the responses and therefore provide more helpful feedback to the students. However, because of the Covid-19 pandemic, this choice was taken away from the lecturer as all teaching was delivered online, which meant that the OMP would also have to be administered online.

There was also a number of direct links between the 'Critical and active engagement' and 'Environmental context' sub-themes. For example, 'Teacher improvements and development' and 'Cultural differences' appeared to be linked. Regardless of culture, the OMP was perceived to be catalyst which encouraged the students to reflect and take ownership of their learning by influencing teaching practice, however, the effect in the Maldives appeared to be heightened. In some part this was attributed to the cultural experience of the students in the Maldives who often worked full-time. As such, they appeared to use their additional knowledge and experience to

inform their teaching and learning experience. This was most notably when linking the material to their real-world experience.

*“[it was] easy to understand the concept when real life examples are given. Like for example we did an assignment on FDI and it was very easy because I am working in a multinational company.”*

## Discussion

The review of the OMP demonstrated that it has perceived value by both lecturers and students; when applied in different cultures context; and when used to support face-to-face and online teaching.

The study identified three core mechanisms through which the OMP is perceived to work in its cross-cultural model of the OMP. First is through establishing deeper connections between the lecturer and student. The OMP helps to build deeper relationships; strengthens communications and helps students build their confidence to express their ideas.

Second it enables students to develop critical thought and become more actively involved in their learning, in particular there was evidence of students reflecting on their learning as a result of engaging in the OMP and changing their behaviour as a result. It also acted as the catalyst and mechanism for students to suggest developments in the way that the OMP is operationalised, but more importantly in the Maldives there was evidence that the students used it as a mechanism to help them take control of their learning and influence how the learning sessions were structured and delivered.

The final core element was the environmental context. In particular there were cultural difference in the makeup of the student cohort's between the UK and the Maldives, with the vast majority of Maldives students working full-time and studying part-time. This influenced the timing of the course delivery, which in turn influence the level of engagement of the students. There was also evidence from the Maldives that using the OMP in an online environment was particularly helpful. In addition to the benefits when used in a face-to-face environment, it also provided additional support for the students by acting as a mechanism that fulfilled the informal chat that sometimes goes on between lecturer and student after the lesson. Given the instabilities of online teaching, it also allowed students to inform the lecturer when they may have dropped out and therefore missed some content.

From the lecturer's perspective it was perceived as being a useful formative assessment technique in both the face-to-face environment and the online environment. The benefit of this, however, was

only captured when the lecturer systematically reviewed the feedback, redeveloped material and invested sufficient time in subsequent sessions to cover the material in sufficient depth.

It also appears, however, that there are a number of additional benefits from the lecturer's perspective when it is used in an online environment. Given that the lecturer cannot now rely on facial clues and body language to gauge the understanding of the students, the OMP is helpful in these regards. It also helps to build a bridge and dialog with the student, much of which would have taken place in conversations before and after a lesson. More importantly, however, is that following the Covid-19 pandemic and the speed in which academics had to convert their teaching material and approaches to be delivered in an online environment, it has meant that even the most experienced academics have taken on the characteristics of a new lecturer (to full online delivery). In line with the findings of Whittard (2015), the results from the Maldives suggest that asking the 'lecturer effectiveness' questions was particularly helpful in speeding the lecturer through the learning curve of delivering successful learning events online.

In line with the past literature, the evidence here also suggests that the OMP is not a panacea but should be used as just one of a number of tools to support the lecturer and the student in their learning. However, considering the OMPs simplicity compared with the complex and ever changing learning environments (particularly following the Covid-19 pandemic); its well-known benefits of use in teaching which now seem to be amplified in an online environment; and the ease in which lecturers and students can administer the OMP electronically; the easy adaptability of OMP; the OMP now more than ever could help lecturers and students to engage in a more productive learning cycle and add significant value to the HE learning experience.

## Conclusion

The OMP is a simple tool which is generally administered at the end of the lesson to provide lecturers with formative feedback on the student and potentially give the student an opportunity to feedback on the lecturer's approach to teaching. The evidence from the literature is that the OMP has the potential to improve student learning and teacher effectiveness, principally through developing the relationship between student and lecturer which provides the foundation to an active approach to learning. However, this does come with some costs and principally these accrue to the lecturer who needs to factor in significant time to develop new material. The literature does acknowledge that the OMP, however, should not be the only tool to be relied upon and should only be seen as one of a number of tools to be used in a progressive approach to lecturing.

This study builds on the literature and provides three novel insights. It provides;

- new evidence as to the costs and benefits of administering the OMP electronically;
- compare the perceived effectiveness when delivering the same module in a face-to-face environment contrasted to a totally online environment; and
- compares the perceptions of its effectiveness when delivering the same module in two different cultural contexts – the UK and Maldives.

The study takes a three-pronged approach to triangulate the results. It captures the lecturer perspective through semi-structured interviews, while the student perspective is captured through two separate sources. Initially their perspective is captured through examining their OMP responses which were delivered in real time. Their experience is further explored by capturing their past reflections through a focus group in the UK and the Maldives. Thematic analysis was used to analyse the results. This informed the creation of a cross-cultural model of the OMP based on three core themes; connections; critical thought and active engagement; and environmental context. All core themes were linked through cross cutting sub-themes.

A detailed analysis of this model provided further support to the usefulness of the OMP in supporting student learning and teacher effectiveness. Connections helped to quickly deepen the student and teaching relationship - this was thought to be particularly useful when teachers are dealing with large class sizes and where no previous relationship with the lecturer had previously existed. Potentially it also has the capacity to make the classroom more democratic as it enabled less confident students to engage in two-way feedback with the lecturer. There was evidence that the OMP also helped students to build confidence; develop their critical thinking and self-evaluation skills; and as such amend their behaviour and become more active learners.

This novel approach for the first time revealed the importance of the environmental context. This context was particularly influenced by both cultural differences between the UK and Maldives and differences between face-to-face and online environments. The main cultural differences arose because of the differences in the make-up of the students which influenced how the module was delivered. Students studied the module at the end of a full-working day and after fasting during the day as part of the module was delivered during Ramadan. This meant that students in the Maldives were potentially less likely to positively engage with the OMP as it was the last thing after a very long day.

To negate against this however, there appeared to be a number of additional benefits using the OMP online which should encourage greater engagement. These included providing a mechanism to partially replace the 'informal chat' which goes on between a lecturer and student around the learning event; allowing students to backfill knowledge due to their internet connection dropping

out during the lesson; partially replacing the loss of formative assessment a lecturer gets from the student body language; and potentially of greatest importance is that it provided the lecturer with a mechanism to get feedback on the effectiveness of the sessions which they could use to speed them through the learning cycle of not having delivered content online previously.

Given the increased availability of technology to students across the globe; the freely available teaching software from which the OMP can be administered; and following the Covid-19 pandemic which brought to the fore the need for flexible approaches to teaching and potentially to teach fully online at short notice; this makes the simplicity and flexibility of the OMP a very attractive and useful tool to help with the teaching and learning process in HE.

The main weakness of this study is that it is based on a small-scale research project, and as with all case studies generalisations are naturally limited. Confidence in the conclusions, however, is supported by the fact that a number of the core findings from this research are reflected in the prevailing literature.

Further research is also needed in to using the OMP in alternative environments. For example, the students made suggestions about using the OMP as a real time feedback mechanism. In reality this would be challenging for one lecturer to do, but could be beneficial if used in a team teaching or small classes. Given the heightened benefits identified using the OMP in an online environment and given that in a post Covid-19 world that teaching in HE will inevitably include more reliance on online teaching, further research is needed to explore the benefits of using it online and potentially its effects on outcomes.

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