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# Student use of asynchronous Rapid Response Forums to support continuous assessment

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## Abstract

Asynchronous Rapid Response Forums have been used on a number of mathematics modules at the Open University since the academic year 2020/21 to provide quick responses to students for queries about continuous assessment. In this paper we examine the use of these forums and their impact on students. For modules where the continuous assessment has been consistent for a few years, we see a regular use of the forums that ranges between 4.2% and 9.5% of the cohort; however, when an assignment has more non-standard questions, or it is the first presentation of a module, we see noticeably higher usage of the forums. Forum usage generally peaks shortly before the assignment is due; as the module progresses, this peak tends to get closer to the deadline. It is seen that most students use the forums only once or twice, though there are a small number of students who use the forums on a regular basis. Whilst the forums are not used by a large number of students, there is evidence to suggest that these forums are vital for some of those who use them to complete the module and, even if the forums are not used, their existence helps students' self-efficacy and allows them to attempt the assessment knowing support can be obtained quickly if required.

**Keywords:** Forum, Rapid-Response, Student Support, Continuous Assessment.

## Introduction and Literature Review

At The Open University (OU) students learn through a supported distance-learning model where, along with study materials, they are assigned a tutor for each module studied and are part of a tutor group of approximately 20 students. Many tutors are part time employees of the OU, and may be supporting multiple groups of students. Students also have access to group support through tutorials from a broader team of tutors and a range of open forums, designed to discuss specific study topics, where they can interact with their peers on the module.

The period before an assessment deadline is a key time when support is often required. However, students are not permitted to post questions about assignments on open forums or discuss them with peers, leaving students with few legitimate ways of accessing support. Students are guided to contact their tutor with academic queries, including assessment queries, and for many students this works, especially if they already have a good working relationship with their tutor. However, other students do not like to approach their tutor about assessment for fear of being judged by the person marking their work (Jack 2016). Additionally, some students feel too guilty to contact their tutor as they perceive them as being too busy to help (Stephen

et al., 2008, Chang et al., 2020). They may also feel too intimidated, or previous bad educational experiences can prevent students from making contact (Cotten and Wilson, 2006, Jack 2016).

Other forms of support from a tutor include attending tutorials or viewing the recordings, which for many provides any additional support needed to complete an assessment. Online sessions during which students are encouraged to "drop-in" and ask questions are also being used in some modules, but a mixture of lack of confidence and time pressures means they do not suit all students (Townsend et al. 2022).

During a student consultation run in early 2020, mathematics students asked for quicker replies to time-sensitive queries; we responded to this request by creating Rapid Response Forums on three mathematics modules for the academic year 2020/21:

- A large, stage one, general mathematics module (MST124), cohort size approximately 2000, studying a diverse range of qualifications.
- A stage two applied maths module (MST224), cohort size approximately 800, studying a diverse range of qualifications.
- A small, stage three, pure maths module (MT365), cohort size approximately 240, which was replaced with MST368 in 23/24, where the majority of students study a degree that has a large proportion of mathematics.

Over time, with further consultations and analysis of usage, the forums were adapted and have now been used in their current form for the last three academic years. The forums are private, so a student's posts and any responses are hidden from other students. They allow students to ask direct questions about assessments and receive a quick response from a tutor which is guaranteed within 24 hours (in practice typically under 2 hours). This is crucial around the assessment deadline and forums are generally open for two weeks prior to each deadline. The motivation for, and set up of, the forums are described in detail by Pawley et al. (2024).

In this paper we will examine the student use of these forums for the academic years 22/23 and 23/24, looking at the total posts made, when the peak use time is, and outcomes for forum users vs non-users, as well as discussing reasons for use. Qualitative data was collected using questionnaires and requests on open forums, asking students why they used the

quick response forums. Quantitative data was obtained from the Virtual Learning Environment, in anonymous form with no individual student identifiable. All data has been gathered and stored in accordance with the OU Human Research Ethics Committee's requirements.

## Student use of asynchronous forums

In most cases forum usage follows a similar pattern for each of the three modules; reporting will therefore centre around the data produced on the large level one module (MST124), with exceptions to this being noted as appropriate.

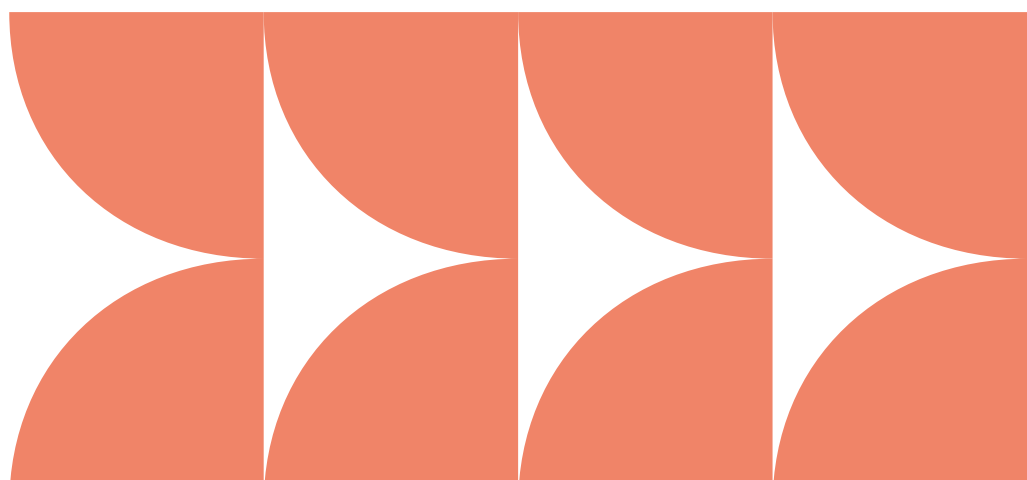
### Forum usage overview in each module

Module	Year	Percentage of cohort	Number of users	Threads per user
MST124	22/23	7.2%	90	2.03
	23/24	8.4%	103	2.07
MST224	22/23	4.3%	28	1.43
	23/24	4.2%	27	1.48
MT365	22/23	9.5%	19	1.58
MST368	23/24	15.0%	32	2.34

Table 1: Percentage of cohort and number of students in each module using the forums at some point in the module, and the mean number of threads per student.

## Overall forum usage

As seen below (Table 1) in general the forums are used by between 4.2% and 9.5% of the cohort; the 15% for MST368 may be seen as an outlier due to the module being new. It is notable that both the proportion of students using the forum and threads per user are lower on MST224 than on either of the other modules. This may be because assessments in MST224 are formative, with there being no direct benefit in terms of final result to students in gaining a mark over 30% in an assessment.



It is also worth noting that there is a significantly higher proportion of students using the forum for the new module MST368 which replaced MT365. It is possible that the positive atmosphere created by the module team to gather student feedback on the new module encouraged more students to seek explanations of assignment requirements. This is highlighted by the two quotes below:



The tutors on this module were especially enthusiastic and friendly

**Student**



I used the TMA advice forum to get clarification on a question which I didn't understand. I presented a couple of interpretations of the question as I read it and asked which, if either, interpretation applied.

**Student**

### Individual usage of forums

The forums are designed to be used only when a quick response is required and therefore it is expected they will be used by an individual student only once or twice during their study of the module. This is demonstrated by Figure 1, where it can be seen for MST124 that the majority of students use the forum to start just one thread; this is similar for the other modules. Since one thread corresponds to a query about one assignment question (as per instructions for forum use), this also shows students generally are not obtaining what might be regarded as "excessive" amounts of help and are not becoming unduly dependent on the forums. An average forum use of more than once per assignment, i.e. more than four threads, happens only in a minority of cases.

### Frequency of students starting a given number of threads

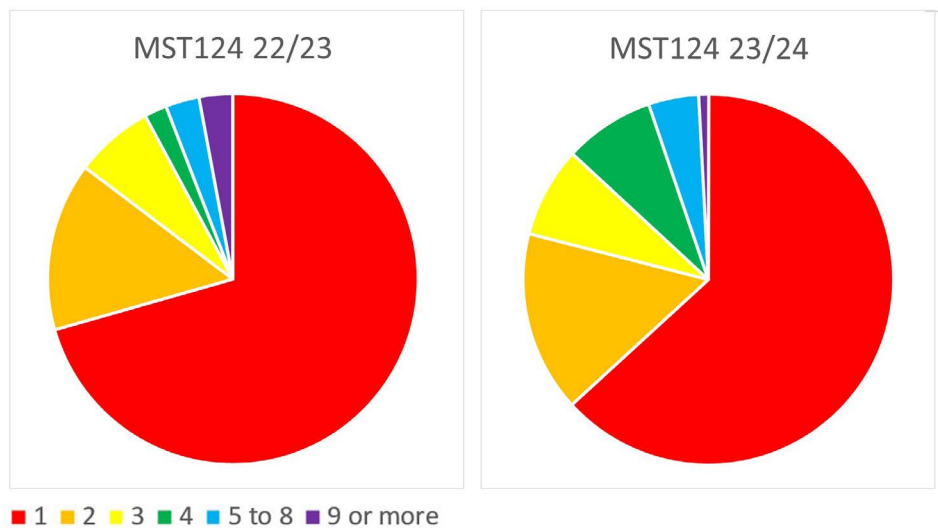


Figure 1: Frequency of students starting a given number of threads in each cohort for MST124

Use of the forums only when a quick response is required is further demonstrated when we consider when the forums are busiest. Table 2 shows the peak usage of the forum, with the number indicating the amount of days before the assignment deadline. The figures for MST124 may be regarded as most reliable in the sense that a higher number of students use the forum and peaks are less likely to change depending on the work patterns of a very small number of students. However, all modules followed a similar pattern and this indicates that in general the forums are busiest in the last few days before an assignment is due.

### The day of peak forum usage given in terms of the number of days before the assignment is due

Module	Year	Assignment 1	Assignment 2	Assignment 3	Assignment 4
MST124	22/23	8	3	3	2
	23/24	2	2	2	1

Table 2: The busiest day for each forum, given in terms of the number of days before the assignment is due

This tendency for usage to peak close to the deadlines may be seen as a measure of the utility of the forums to the 'target audience' (the students who are in need of a rapid response to progress with their assignment) since generally it would not be feasible to rely on so rapid a response from a tutor, as articulated by a student:

I did use these forums (not every time) and found them great. It meant I wasn't worried about bothering my tutor at short notice to the deadline when they might not have been available, and also knew I would get back a timely answer that helped.

#### Student

Across all modules there is a general tendency for peak usage to occur closer to the deadline as the module progresses, potentially indicating that students are struggling increasingly with the workload and timing.

### Assessment and retention profiles of students who use the forum

As can be seen in Figure 2, which reflects the pattern of all modules, the students who used the forums on MST124 had a greater probability of having a high assessment score than the students who did not. This indicates that use of the forums is associated with higher assessment grades specifically, potentially due to an increased confidence to attempt all assignment questions. This is further evidenced by students who commented:



I was able to get a quick response to a problem I had with one of the assignment questions, which helped me out a lot.

#### Student



These forums have helped with my confidence with questions I was unsure on.

#### Student

### Assessment profile for users and non-users of the forum in MST124

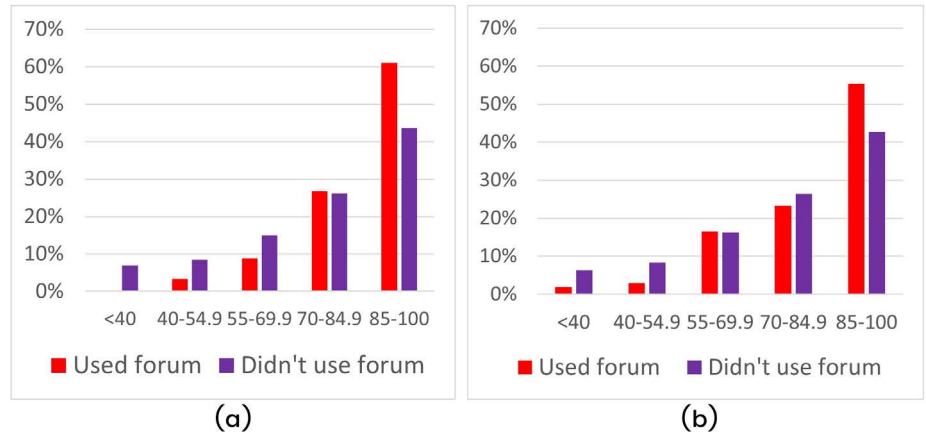


Figure 2: The mean continuous assessment score for students who used or did not use the forums (a) for 22/23 and (b) 23/24.

A further benefit for the students who use the forums may be that they are more likely to complete the module: "Even for the TMAs that I didn't use this forum, it was reassuring to know it was there if I needed it". Table 3 on the following page shows that forum users have a higher completion rate than the rate for the module overall. In all cases except MST368 23/24, the 95% confidence interval for the completion rate of forum users does not contain the module completion rate overall.

### Percentage completion rates for forum users compared to the module as a whole

Module	Year	Completion Rate	
		Forum users (95% confidence interval)	Module overall
MST124	22/23	86.7% (79.6%, 93.7%)	63.9%
	23/24	84.5% (77.5%, 91.5%)	64.3%
MST224	22/23	96.4% (89.6%, 103.3%)	73.6%
	23/24	96.3% (89.2%, 103.4%)	78.7%
MT365	22/23	94.7% (84.7%, 104.8%)	82.1%
MST368	23/24	90.6% (80.5%, 100.7%)	81.3%

Table 3: Percentage completion rates for forum users compared to the module as a whole

Figure 3 shows the module grades for forum users in 23/24, which shows that the modal grade for a forum user was a grade two pass. The overall grade pattern was similar in 22/23, apart from two differences in mode: MST124 22/23 (distinction) and MST224 22/23 (grade 3 pass).

The comparison between the grade profile of forum users and non-forum users shows forums are most used by middle-range students. Strong students perhaps feel less need for additional support – although since some high attainers can be anxious, it would not necessarily be anticipated that their usage would be lower. There is a significantly lower incidence of failing the module amongst forum users; this could be related to both enhanced confidence and self-efficacy, linked to the existence of the forums, and to the fact that forum users are by definition engaging with the module.

The fact the profiles of final module grade and continuous assessment grades (Figure 2) differ may also indicate that the forum does not help students' understanding of the module as a whole; it helps only with particular assessment questions, but, as discussed above, supports students to complete the module.

### Final module grade profiles for users and non-users of the forum in all three modules for year 23/24

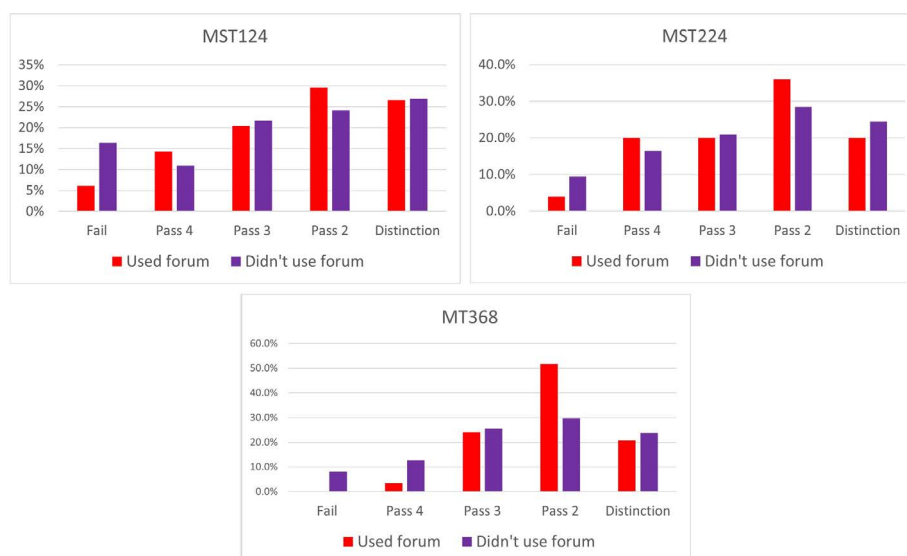


Figure 3: Final module grade profiles for users and non-users of the forum for modules MST124, MST224 and MT368 in the year 23/24

In Figure 3 it is noticeable that the grade profiles of forum users are more similar between the different stage modules than those of the non-forum users; for example, for non-forum users the modal grade in MST124 is a distinction, but this is not the case on the other two modules. This could be a further indication that there is a “typical” student who will use these forums, and could explain why the results for all the

modules are notably similar, given the otherwise differing profiles of the student cohorts.



## Conclusions and Discussion

Whilst Rapid Response Forums are not used by the majority of students, for those that do use them they are a vital lifeline. Forum use peaks shortly before assessment deadlines, and this peak tends to move closer to the deadline as the module progresses. Students tend to use the forum just once in the course of the module, with only a small minority using it more than once per assignment. The academic impact of forum use appears to boost continuous assessment scores but not module grades; and improve student retention on the module. Qualitative responses received indicate a benefit to student confidence and feelings of being supported due to the existence of forums, even for students who did not utilise them themselves.

There do not appear to be any adverse impacts of the forums; students are still becoming independent learners and developing the appropriate problem-solving strategies as evidenced by the higher completion rates of our forum users.

### Further work

A better understanding of the demographic profile of forum users would be beneficial to ascertain whether groups affected by awarding gaps are benefitting fully. Payne et al. (2023) discussed the tendency for first-generation students to be less inclined to seek academic help. Fong et al.'s (2023) meta-analysis mentions the tendency for reduced help-seeking behaviour in male students, older students and racially minoritised students, and those from individualist rather than collectivist cultures. Whilst the forums reduce some barriers to help-seeking behaviour, we do not have the data to judge what impact they have on these groups.

Whilst the vast majority of forum usage is as expected, there are a small number of students who are particularly frequent users; investigations into this behaviour might be of interest.

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