



## Open Research Online

### Citation

Pawley, Susan (2018). Bridging the study gap: Provision of support for Mathematics students during breaks in study. In: Higher Education Academy: STEM Conference, 31 Jan - 01 Feb 2018, Newcastle, UK.

### URL

<https://oro.open.ac.uk/100918/>

### License

(CC-BY-NC-ND 4.0) Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

### Policy

This document has been downloaded from Open Research Online, The Open University's repository of research publications. This version is being made available in accordance with Open Research Online policies available from [Open Research Online \(ORO\) Policies](#)

### Versions

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding

# Bridging the study gap:

Provision of support for mathematics students during breaks in study



The Open  
University

“Maths is your friend If you meet with him every day, he becomes your best friend. If you leave for a time he forget you and you forget him. “

# Mission

The Open University's mission is to be open to people, places, methods and ideas.

We promote educational opportunity and social justice by providing high-quality university education to all who wish to realise their ambitions and fulfil their potential.

Through academic research, pedagogic innovation and collaborative partnership we seek to be a world leader in the design, content and delivery of supported open learning.

# Open to all

Most of our undergraduate courses have no formal entry requirements. We believe that the qualifications our students have when they leave are the only ones that matter.

We are committed to promoting equal opportunities for all, and close monitoring makes sure that we live up to our ideals.

There is no typical OU student. People of all ages and backgrounds study with us, for all sorts of reasons – to update their skills, get a qualification, boost their career, change direction, prove themselves, keep mentally active. The OU is open to them all.

*The Open University's Former Vice-Chancellor, Martin Bean*

# How study at the Open University works

- Students register onto a degree pathway
- They sign up for individual modules
- Most modules are 30 or 60 credits
- Full time study is equivalent to 120 credits per year
  - however most students study either 30 or 60 credits at one time

## **Whilst studying a module -**

- Each student has the support of a tutor that is an expert in their subject.
- The tutor offers support by telephone, email or computer conferencing, leads tutorials, marks assignments and provides written feedback.
- The student has access to a wide variety of support staff, who can give advice on all non-academic issues.

## Between modules -

- The student has access to a wide variety of support staff, who can give advice on all non-academic issues.

“Maths is your friend If you meet with him every day, he becomes your best friend. If you leave for a time he forget you and you forget him. “



# Why MST124:Essential Mathematics 1?

- It is a compulsory or optional module in 62 different named qualifications
- It features on the degree pathways of all Faculties within the university
- The historic pass rate:

	registered on MST124	still registered after 13 days	Passed MST124		
	No of students	No of students	No of students	% of registered	% of 13 day reg. s
2014J	2704	2465	1218	45.04%	49.41%
2015B	1471	1354	620	42.15%	45.79%
2015J	2913	2698	1340	46.00%	49.67%

# Revise and refresh for MST124

Sue Pawley

Tim Lowe

Gaynor Arrowsmith

# Revise and Refresh For MST124

Bootcamps

Tutor led  
revision crash  
course

Self-led support  
with forum  
guidance

Revise and  
Refresh Website

# Revise and Refresh Website

## Timetable for October start of MST124

<b>Topic</b> <b>(Click to access the topic resources)</b>	<b>Recommended study time</b>	<b>Suggested period</b>	<b>Online boot-camp tutorial</b> <b>7-9pm</b> <b>OU Live room</b> <b>(above)</b>
<a href="#">Numbers: integers, fractions, surds and indices</a>	1 week	early to mid July	Monday 11 September
<a href="#">Algebra</a>	1 week	mid July	Wednesday 13 September
<a href="#">Linear equations and graphs</a>	3 weeks	late July and early August	Monday 18 September
<a href="#">Quadratic expressions and equations</a>	2 weeks	two weeks from mid-August	Wednesday 20 September
<a href="#">Trigonometry</a>	1 week	last week of August	Monday 25 September
<a href="#">Exponentials and logarithms</a>	1 week	first week of September	Wednesday 27 September

# Numbers: integers, fractions, surds and indices

Not available unless: The activity [Numbers: integers, fractions, surds and indices](#) is available (hidden otherwise)

Try this quiz first

---



**Numbers quiz**

---

Revise and refresh Numbers

---



**BIDMAS**

---



**Negative numbers**

---



**Numerical fractions**

---



**Rounding**

---

---



## Numbers quiz

Use this quiz to test yourself on numbers.

You can attempt this quiz as many times as you like, and will usually get different questions each time.

You are allowed three attempts at a question before a full solution is displayed.

Once you have completed a question, you can try another similar question if you wish by clicking the "Try another question like this" button which will be shown at the end of the worked solution.

At the end, remember to click "Finish attempt" below the grid of question numbers, then the "Submit all and finish" button at the bottom of the page.

# Numbers: integers, fractions, surds and indices

Not available unless: The activity [Numbers: integers, fractions, surds and indices](#) is available (hidden otherwise)

Try this quiz first

---



**Numbers quiz**

---

Revise and refresh Numbers

---



**BIDMAS**

---



**Negative numbers**

---



**Numerical fractions**

---



**Rounding**

---

---

# BIDMAS

*Restricted: Not available unless: The activity **BIDMAS** is available (hidden otherwise)*

**Refresh**

---



**Revise**

**Where to find BIDMAS in MU123**

Unit 1 Section 2.1: *Getting the order right* (page 12-14)

**Where to find BIDMAS in S111**

Topic 4 Maths, Maths Skill: BEDMAS or BIDMAS



---

## Practice Numbers

---



[Practice Numbers: set 1](#)

---



[Practice Numbers: set 2](#)

---



[Check that you really do understand Numbers](#)

---

**Get help and Go back to main page**

---



[Forum: Revise and refresh for MST124](#)

Use this forum to get help with this topic.



### Forum: Revise and refresh for MST124

*Not available unless:*

- *It is on or after **28 Oct 2017***
- *It is before end of **31 Jan 2018***



### Online room: Revise and refresh for MST124

*Not available unless:*

- *It is on or after **28 Oct 2017***
- *It is before end of **31 Jan 2018***



### Ready to start MST124?

Once you've revised and practised the topics above, click here to make an early start on Essential mathematics 1 (MST124)

## For Oct 2016, how many students used the facility?

- 489 students tried at least one of the interactive quizzes
  - With 87 students doing all 6
  - 449 started MST124 (with 40 students changing their plans)
- 29 students posted in the forum
  - 36 different topics
  - Many students make multiple posts

As a guide, at the final registration point there were 2411 students currently registered on MST124

# Bootcamps to revise for MST124

Hilary Holmes

Sue Pawley

## Tutors

Luay Salman

Richard Williams

John Armitage

Colin Fulford

# Format

6 tutorials

Two tutorials a week

In the three weeks before  
module start

Two tutors per tutorial

– one presenting, one manning the text chat

Senior Academic lurking in background

# Oct 16 – Before the start of MST124

170 students attended at least one bootcamp

87 also completed some quizzes on the revise and refresh website

2 changed their study plans

85 have stayed registered on MST124

3 decided to study MU123 instead

1 postponed till 17B

77 have stayed registered on MST124

83 didn't do any R&R quizzes

2 withdrew

# Oct 16 – At the start of MST124

162 students still registered

87 also completed some quizzes  
on the revise and refresh website

2 changed their study plans

85 have stayed registered on MST124

3 decided to study MU123 instead

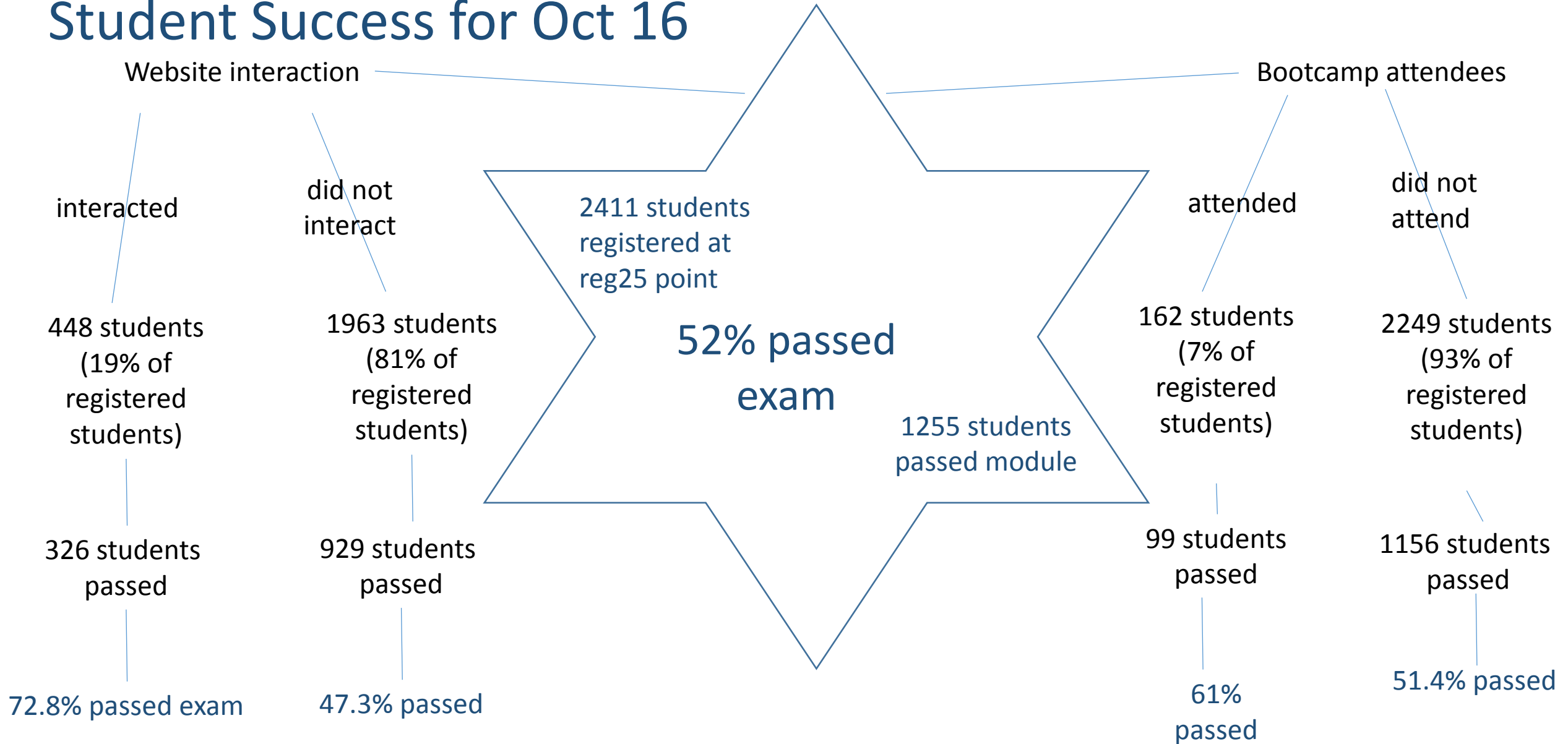
1 postponed till 17B

77 have stayed registered on MST124

83 didn't do any R&R quizzes

2 withdrew

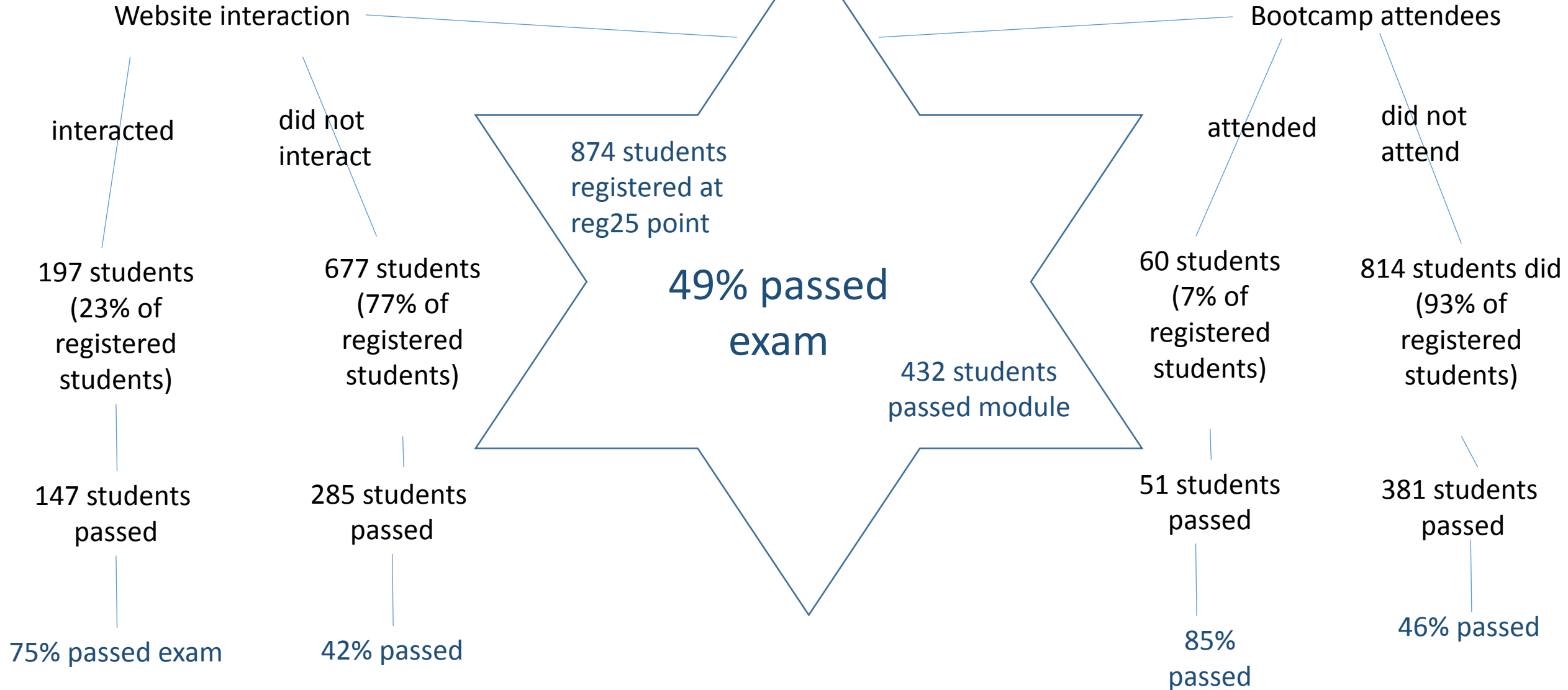
# Student Success for Oct 16



MST124 Oct 16



# Student Success for Feb 17



MST124 Feb 17

305 students attended boot camps  
(14% compared to 7% in Oct 16)

87 students were active on the forum  
(compared to 29 in Oct 16)

## How did Oct 17 go?

2211 currently register for Oct 17  
(compared to 2411 in Oct 16)

927 students attempted the R&R quizzes  
(42% compared to 19% in Oct 16)

# Extensions

- For Oct 17 we opened an R&R site for MST224 (a second level applied maths module)
  - chosen as many degree pathways require a break in studying mathematics prior to commencement
- For Oct 18 further maths and stats R&R sites will be produced building on the resources used for MST224
- Opportunities to increase links with Science additional maths support
- Opportunities to extend sites to cover other modules, potentially in other Schools with practical subjects that rely on prior knowledge

## Student Feedback

In my opinion the revise and refresh website was actually very refreshing in the sense that it not only helped me to revise but also managed to help raise my moral before MST124 started in earnest. Actually the same principle could be applied on many OU modules.

The site was insightful and helped me find the areas I needed to concentrate on to prepare for the course. When I found a subject that I didn't understand I looked for additional resources to learn it. Both are very useful. I had done MU123 so I treated them as another revision and preparation resource.

I started and deferred MST124 the year before, and the new site for 2016 was an obvious big improvement.