



# **SHAPING SUCCESS ACTION RESEARCH PROJECTS**

**FINAL REPORT ON THE SHAPING SUCCESS AR PROJECT –  
USING ON-LINE ASSESSMENTS AND ACTIVITIES TO FOSTER  
INDEPENDENT LEARNING AND IMPROVE TEACHING**  
**Chesterfield College**

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For further information regarding the Shaping Success Action Research programme and this project go to <https://ccpathways.co.uk/practitioner-research/otla-7/>.

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## Contents

Final report - Using On-line Assessments and Activities to Foster Independent Learning and Improve Teaching .....	2
References.....	7
Appendix 1 – The project team .....	8
Appendix 2 – Suggestions and recommendations.....	9
Appendix 3 – Learner Journeys (learners A,B,C,D & E).....	15
Appendix 4 – Class discussions.....	39
Appendix 5 – Colleague experiences .....	59
Appendix 6 – Staff and student surveys.....	61

# Final report - Using On-line Assessments and Activities to Foster Independent Learning and Improve Teaching

## Chesterfield College

This project explored using Drfrostmaths.com to assess students' maths skills, set assessments and homework tasks.

### Summary

Chesterfield College is a further education college in Chesterfield, North Derbyshire. The aim of the project, which involved the whole maths department was to see if online assessment and activities could improve our lesson planning, foster independent learning and improve learner progression.

### Rationale

In an FE environment, teaching GCSE resit is difficult. Time is limited and for most learners, much of the content is being re-taught. It is important that time is used efficiently by identifying what students do and don't know and adapting accordingly. We hoped that an online maths self-assessment tool – Dr Frost Maths (DFM) – would help us to achieve this aim.

Wiliam (2016) states 'When students are the owners of their own learning all other strategies fall into place. Students play a part in deciding what they will learn, so classroom questions are designed not to 'catch them out' but diagnose and support what needs to happen next'. We hoped that using DFM as an assessment tool would aid learners in owning their learning and encourage them to be more independent.

### Approach

For some-time there had been departmental discussion about using online resources to encourage our learners to do more independent-study and to help us identify the 'gaps'.

We discussed various subscription websites such as MyMaths and Mathswatch but decided on DFM. It was free and could do the same things: assess; track learners' progression; videos; past exam questions; and paper resources. The department attended an on-line training with DFM.

Because we had no experience with DFM colleagues were given freedom to implement it as they wished. We hoped this would mean everyone in the department would contribute to the project. I decided to use DFM more heavily with my learners on the Kickstart programme. This is a course with no vocational element designed to reintegrate learners into education. Colleagues used it with: GCSE, Functional Skills learners, A-Level and adult learners.

After exploring the use of DFM for a number of weeks in our individual classrooms and online environments, we decided to create an online formative assessment for our learners. With learners and members of staff isolating in October 2020, we thought this was perfect opportunity to try out an online assessment

We saw the benefit of feedback grids (figure one below) which made it very easy to identify which topics a class was weaker on, and plan feedback lessons accordingly.

← Return to Class Summary		<input checked="" type="radio"/> By Question <input type="radio"/> By Topic <input type="radio"/> Worst Questions 			
Export	Total	Q1: [Edexcel IGCSE(9-1) Jan 2019 1F Q1c]Write in words the number 4309 Put worded numbers into figures or vice versa.	Q2: [Edexcel IGCSE(9-1) June 2018(R) 2F Q6b]Write the number thirty two thousand and forty fr... Put worded numbers into figures or vice versa.	Q3: [Edexcel GCSE June2011-2F Q8a]Lisa buys a pizza and a coffee.Work out the total cost. Add or subtract decimal numbers.	Q4: [Edexcel GCSE(9-1) Mock Set 3 Autumn 2017 1F Q14]Work out172 × 34 Multiply numbers up to 3 digit by 3 digit.
Lfmgreurj, Yocakbahxftzo List Attempts (1) View Progress	15/50 ✓ Complete	✓ CORRECT 1/1 View	✓ CORRECT 1/1 View	✓ CORRECT 1/1 View	✗ INCORRECT 0/3 View
Njzgv Ylijbwto, Ncfqfui List Attempts (1) View Progress	20/50 ✓ Complete	✓ CORRECT 1/1 View	✓ CORRECT 1/1 View	✗ INCORRECT 0/1 View	✓ CORRECT 3/3 View
Llbapbkr, Rxhlx List Attempts (1) View Progress	14/50 ✓ Complete	✗ INCORRECT 0/1 View	✗ INCORRECT 0/1 View	✓ CORRECT 1/1 View	✓ CORRECT 3/3 View
Rsgagpuf, Lcbsvi List Attempts (0) View Progress	-				
Bngyy, Wzbnkq List Attempts (1) View Progress	50/50 ✓ Complete	✓ CORRECT 1/1 View	✓ CORRECT 1/1 View	✓ CORRECT 1/1 View	✓ CORRECT 3/3 View
Fsmoe, Gomquxx List Attempts (0) View Progress	-				
Qidbf, Nrdjif List Attempts (1) View Progress	45/50 ✓ Complete	✓ CORRECT 1/1 View	✓ CORRECT 1/1 View	✓ CORRECT 1/1 View	✓ CORRECT 3/3 View
Dourubnjna, Xxtyyn List Attempts (1) View Progress	2/50 ✓ Complete	✗ INCORRECT 0/1 View	✗ INCORRECT 0/1 View	✓ CORRECT 1/1 View	SEEN View
Hozl Iikioy	11/50	✓ CORRECT	✓ CORRECT	✓ CORRECT	✗ INCORRECT

Figure one

We then moved on to experimenting with using DFM in lessons.

I created some diagnostic questions that covered most of the foundation skills for that topic. Learners completed the questions online and the feedback grids populated instantly. I could see how questions were being answered live and was able to pause a class to model answers using the on-line whiteboard or direct individuals there while others continued answering questions.

We then focused on monitoring and encouraging engagement.

January 2021 lockdown meant all teaching was moved online. DFM exercises proved an excellent way to check if learners were engaged as you could see if they were answering questions. You could then direct learners to the DFM whiteboard to model answers whilst not disrupting the PowerPoint presentation on Microsoft Teams.

Part of our aim of using online assessment was to try and promote independent learning. A major advantage of DFM was that every question answered was put into

a bank attached to the learner by topic. It was easy for staff to identify learners' gaps in knowledge.

The next step was to empower learners to identify their own gaps so that they could engage in directed self-study. I made a video to help learners identify their weaker topics based on all the questions they had answered so far. I then encouraged my learners to work on those topics by watching videos on DFM and completing the relevant topic tests during February half term.

To further encourage self-study we decided to recognise the work learners were doing on DFM for our Kickstart learners in their monthly Kickstart awards ceremony.

## Professional learning: Evidence of changes in teaching, learning and assessment practices

Online assessment has given us the capacity to mix online work and class work. Learners in the classroom can use their devices or college computers to complete online tasks in college as well as at home. This is useful for working on individual targets and targeted extension activities in a lesson. We are currently in the process of buying tablets to help facilitate this, should learners not have appropriate devices.

There were other projects looking at gap analysis; we collaborated and discussed how we analyse gaps and encourage learners to self-study. These discussions are still continuing as we work in an FE environment with so little data on our learners when they arrive. Working to learners' gaps is the most effective way for learners to progress and is more valuable than implementing a 'conveyor belt' curriculum.

I identified the questions that the majority of learners answered incorrectly within an assessment, which is done with the click of a button on DFM, and used them as starters.

## Evidence of improved collaboration and changes in organisational practices

Over the course of the year members of staff have been implementing DFM in new and exciting ways; it is far more than just an assessment tool. It has been rewarding to chat with colleagues about what they have been doing and learning new things from each other. For example, I had mainly used the bank of GCSE questions with my learners, but some colleagues have explored the key skills platform for lower-level learners and functional skills learners. Others created their own worksheets or diagnostic questions using the GCSE bank. The DFM whiteboard was used a lot by colleagues too.

DFM also has a shared area where worksheets created by teachers can be accessed by anyone in the organisation. This has led to members of staff sharing and using each other's worksheets which has cut down on workload.

One of the successes of this project has been staff participation. Every member of the maths department has used DFM in some way. I believe this is due to members

of staff being able to implement as they wished. We have had many discussions in departmental meetings about on line learning and shared experiences. This has led to colleagues learning from each other and trying new things.

A lot of discussions happened informally too. Colleagues would ask each other how do something if they did not know and often figure out new things together.

It was important to keep lines of communication open during homeworking and we used Microsoft Teams to do this. The chat feature was a great way for colleagues to quickly ask questions about how to do something on DFM and receive a quick response. The channels feature allowed us to create troubleshooting threads about DFM and collect any information about glitches. We all saw the benefits of using DFM in an FE environment. I believe the site's ability to cut workload and allow us to use our time more effectively was another reason for staff participation being so high.

### Evidence of improvement in learners' achievements, retention and progression

"I have never revised for a maths exam before now". Many of my Kickstart learners have described a change in how they revise with some learners revising for the first time.

After returning to college in March I stopped on-line learning in class and encouraged learners to use DFM to identify gaps and for self-study. During a class discussion over Teams (Appendix 4) with Kickstart learners it was clear the learners saw value in knowing the names of topics they were weaker on and being able to set targets. Knowing the name of the topic meant that the gap and progress tables made sense to them and they could do internet searches for help if they didn't like DFM videos. This has promoted more independent learning.

Engagement on DFM has varied over the year for Kickstart learners due to trying out different approaches and learners finding out which methods of self-study they preferred. Kickstart learners have often had poor educational experiences consequently have negative attitudes towards mathematics and academic learning. They are often difficult to motivate and rarely work outside the class. The fact that they were evaluating how useful DFM was for them and experimenting with other platforms indicates an increasing confidence and independence.

Some learners showed an increased activity in March and April when revising for assessments but others have decreased activity on DFM, but this may have been because some of them had found sites that they liked more.

### Learning from this project

- We have found that it is really productive to have the whole department being involved with the project and having freedom to experiment and do things in their own way. This has led to colleagues finding out new things

independently which promoted productive departmental discussions about further implementation.

- The data collected by DFM on each learner and for whole classes enables us to know far more about them. In turn we are able to; plan for class/individual feedback, set detailed targets for learners to improve, and adapt schemes of work. This information can also be accessed by catch up or intervention colleagues for effective small group corrective teaching.
- Learners can be empowered to identify their own gaps and use DFM videos to revise and then practice the skills they need. They can see their progress within each topic as they improve. The new 'courses' feature allows learners to find topics and skills covered in lessons easily.
- Learners are encouraged and supported by targeted feedback on DFM. Automated marking allows more time to do this and concentrate on adapting lessons and schemes of work to suit a class.
- Reward and recognition is a motivator to use DFM. Leader boards make it easy to identify the number of points and questions answered per learner. This can be displayed in your institution. The home page lets you know the activity of your learners so it is simple to spot when learners are doing independent practice and praise them.
- Some learners can be disadvantaged using DFM if they are using an old device, mainly when showing working out. This can be remedied by making working out optional when setting a task and allowing learners to hand in written working.
- For equal access, DFM allows paper-based versions of online worksheets to be printed easily.
- The already motivated seem to have benefitted most from DFM. Our challenge is to show all learners the benefits, help them be more independent and to take charge of their learning.

## References

Wiliam, D. and Leahy, S., 2016. *Embedding formative assessment*. Hawker Brownlow Education.

## Appendix 1 – The project team

Project Role	Name	Job Role
Project Lead	Ben Riley	Maths Tutor
Deputy Lead	Sally Drury	Maths co-ordinator
Project team	Christopher Gould	Maths co-ordinator
	Andrew Hartley	Maths Tutor
	Karen Hutchings	Maths Tutor
	Anar Rodriguez	Catch up tutor
	Steven Howarth	Maths tutor
	Mark Booth	Catch up tutor
	Ged Smith	Maths Tutor
	Stuart Riley	Maths tutor/ Catch up tutor
	Lucy Hames	Maths Tutor
	Tracy Floyd-Jones	Maths Tutor
	Gail Redfern	Curriculum operations manager
Project Mentor	Sarah Richards (ccConsultancy)	
Research Group Lead	Gail Lydon (ccConsultancy)	

## Appendix 2 – Suggestions and recommendations

### Ideas for implementation with our experiences

We found that the data collected by Dr Frost is extremely valuable. If we set learners homework and assessments over the year on a broad range of topics, it is easy for teachers to set targets. Learners can also set targets for themselves. By the time learners come to revise for final exams, there will be a wealth of data to identify gaps in knowledge and target revision. This will give us a detailed picture of your learners and can be especially valuable for learners who do not gain a grade 4 in their first year at college.

#### Progress by topic

Each question a learner answers is attached to either an exam skill or a key skill. When a learner answers a question their performance within that skill is recorded. It is possible to look all the skills completed by learners using the 'progress by topic feature' and identify areas for improvement. In the image below you can see a selection of exam topic areas for a learner. You can see that some areas for improvement are solving worded problems, with only 2 questions correct out of 4, and multiplying decimal numbers, with 2 questions answered correctly. Learners are also able to access this information to see their own weaknesses. When a learner clicks on one of their weaker topics on the left they see all questions they have answered on that topic to see where they may have gone wrong. They then have the option to watch a tutorial video and have a go at more practise questions to improve their score for that skill.

Progress by Topic

Dorricott, Ella (GCSE Gp1, Kickstart demo)

Quick Class Select

Exam Qs

KS2/3/4 - Number

 Question Data
  Videos Watched

Export

Basic Arithmetic

Correct: 3/3

Divide numbers.

Basic Arithmetic

100%

Correct: 2/2

Solve worded problems involving a mixture of addition, subtraction, multiplication and division.

Basic Arithmetic

50%

Correct: 2/4

Add and subtract whole numbers.

Basic Arithmetic

100%

Correct: 3/3

Put worded numbers into figures or vice versa.

Basic Arithmetic

100%

Correct: 2/2

Know the place value of digits.

Basic Arithmetic

100%

Correct: 2/2

Use a scientific calculator.

Calculator Use

100%

Correct: 1/1

Add or subtract decimal numbers.

Decimals

100%

Correct: 3/3

Multiply decimal numbers.

Decimals

0%

Correct: 0/2

Select a row on the left.

The screenshot shows the Dr Frost platform interface. On the left is a 'Progress by Topic' sidebar with a list of topics and their completion percentages. The main area displays a question titled 'Multiply decimal numbers.' with a sub-heading 'Decimals'. Question 1 asks for the volume of a triangular prism with a height of 10 mm, a base width of 4 cm, and a length of 5 cm. The correct answer is 10 cm<sup>3</sup> and the user's answer is 100 cm<sup>3</sup>. Question 2 shows a diagram of a trapezium with a top side of 12 m and a left side of 9 m, with a note that the diagram is not accurately drawn.

Topic	Percentage
Multiply numbers up to 3 digit by 3 digit.	100%
Divide numbers.	100%
Solve worded problems involving a mixture of addition, subtraction, multiplication and division.	50%
Add and subtract whole numbers.	100%
Put worded numbers into figures or vice versa.	100%
Know the place value of digits.	100%
Use a scientific calculator.	100%
Add or subtract decimal numbers.	100%
Multiply decimal numbers.	0%

For a teacher in FE I would recommend using DFM to gather data on learners over the course of the year by assessing exam skills/ key skills topics for GCSE and Functional skills learners. You can do this by creating your own worksheets, using topic tests or the key skills platform. This will allow you to identify gaps in knowledge for each learner and plan feedback and intervention accordingly.

Here are different ways I would recommend implementing Dr Frost and our experiences as a college:

### Classwork or homework

If your institution has the technology available or the learners have suitable phones you can use Dr Frost as classwork with making working out optional. We found that some learners have devices that are dated and therefore struggle with screen size/ processing power when answering questions, especially when showing working out. Going forward we will be making working out on Dr Frost optional and give learners the option to do this on paper. We will be purchasing a set of tablets that learners will be able to borrow for self-study and homework should their device not be suitable. The Dr Frost live game is a fun way to gather data from a sessions and creates a competitive element, think Kahoot but with a maths worksheet.

We found it can be easy to overwhelm learners with Dr Frost exercises, especially when target setting so I recommended that only a few tasks are set and are completed before setting new ones.

The feedback feature on DFM can be very useful for creating a dialogue between teacher and learner. Worked solutions on Dr Frost come in the form of a mark scheme. Learners can find this hard to decipher and would prefer worked solutions. This has led some learners to turn to the maths Genie website for worked examples. Modelling answers is recommended for class or individual feedback.

## **Online learning**

If we find ourselves teaching remotely again due to the pandemic or if you teach online I cannot recommend Dr Frost enough. It is fantastic for checking engagement, common errors and very useful for giving individual or group feedback and question modelling whilst still allowing other learners to continue. Each question being answered has a link to the whiteboard feature, where that question will appear, you can share the link and direct a learner there for modelling an answer using a range of drawing and writing tools.

## **Assessment**

With the exception of AQA reforms you have the full choice of past exam papers for learners to practise or to assess them. Using a past exam paper is a great way to test a variety of skills and therefore gather a wealth of information to identify topics for improvement. You can of course edit past papers or create your own assessment.

Another advantage of Dr Frost has been the potential to be paperless. However, the lack of AQA questions has meant that going forward for us, past paper assessments will have to be done on paper. It will still serve to cut down on the use of paper for homework and self-study.

## **Catch up or intervention**

We have found that the 'progress by topic' feature is valuable to 'catch up' or intervention teachers. It allows for them to identify areas for improvement for a specific learner or small group and plan an intervention lesson.

## **Self-study**

By creating a course on Dr Frost you give learners a place to see what skills have been covered in a lesson/half term and allow them to practice in their own time. You group the skills covered in a term together and create a place for learners to access practice questions and videos easily. Using courses, it makes it far easier for the learner to look for the topics they need to practise. This is especially good for your more independent learners and adults.

Courses → Schools → Chesterfield College →  
**GCSE Foundation**  
Assigned Classes: NONE  
Chesterfield College

**Fast Track to November Exam**

- Types of numbers
- Fractions 1
- Percentages 1
- Algebra 1
- Algebra 2
- Averages and range
- Perimeter/ Area
- Circles and Volume
- Angles
- Direct Proportion
- Ratio
- Revision

**Autumn 2 (to Christmas)**

- Probability and relative frequency
- Rounding and estimation
- Ratio 2
- Straight line graphs
- Revision

**Spring 1 (to spring half-term)**

- Graphs (scatter graphs and pie charts)
- Real life graphs incl. compound measures
- Percentages 2
- Standard Form
- Metric measures and scale diagrams
- Transformations (reflections/rotations) and symmetry
- Transformations (translations/enlargements), vectors?
- Algebra 1 and 2 revisit
- Sequences and number machines
- Revision

**Spring 2 (to Easter)**

- Angles revisit
- Bearings
- Fractions - recap and 4 operations
- Decimals/percentages recap
- Revision

The 'progress by topic' feature should also be shown to learners so that they can identify their own weakness and write down the topics as targets.

Another great feature of Dr Frost is the 'clean up' option. This gives a learner 4 questions that they recently got wrong, with the option to watch a video on each topic. This encourages learners to spend a small amount time working on gaps. We are exploring the idea of working with vocational members of staff to encourage learners to try doing this in tutorial if appropriate.

We found learners liked being able to set their own targets using Dr Frost and were empowered to be able to see their weaker topics. This gave them more direction and made what can be an overwhelming GCSE syllabus less daunting. Some learners were not keen on some resources on Dr Frost so after identifying the topics for improvement they would use alternative websites to watch videos and try practice questions.

Other members of staff have observed that it is their more independent learners have made the most out of Dr Frost. A challenge for next year will be to show all learners the value of knowing gaps and being able to set targets.

## **Recognition**

This year we have found that learners like to be recognised for any self-study or homework they do. Using the activity log which is defaulted to the left of your homepage on DFM you can see when learners complete a task. Sending a message or email to give learners a pat on the back is effective encouragement. A visible monthly leader board (learners gain points for each correct answer) is another way

## Appendix 3 – Learner Journeys (learners A,B,C,D & E)

### Context

These learners studied on the kickstart course which is a college course with no accredited vocational element (just English and maths) aimed at reintegrating students into education. I intended on doing two case studies but after interviewing a range of learners in the group I thought it would be valuable to share more stories.

### Learner A

Learner A is studying higher GCSE maths, left school in Year 10 and was home schooled. They didn't sit their exams in Year 11 and dropped out of college last year for personal reasons. This year they joined the kickstart course and in November they sat the foundation GCSE paper and gained a grade 5 with 92% overall. This year they completed their course with a good higher grade.

This learner enjoyed using Dr Frost and used it a lot for self-study using a laptop. They mainly used past papers to practise their skills by writing working out on paper.

*'I liked showing working out on paper to practice for the exam'*

As this learner was studying for higher, which often includes some quite lengthy workings, they preferred practicing using written methods rather than on the Dr Frost whiteboard.

This learner is very independent and has a natural aptitude for maths. They are able to teach themselves topics they have learnt a lot of the higher syllabus independently over the last 3 years. They liked the fact they could identify their weaker topics from classwork and past papers completed on Dr Frost. In their own time they preferred to study using past exam papers on Dr Frost and their preferred site for revising topics is Maths Genie.

*'I prefer the videos and worked solutions on Maths Genie'*

This learner liked that the solutions on Maths Genie were handwritten and could follow them much better than a mark scheme. They preferred the videos on Maths Genie but still often used Dr Frost videos and made notes while watching.

*'Teach students how to use it'*

This learner was asked how he would implement Dr Frost if they were a teacher. They stated that they would teach students how to spot and plug their gaps early on in the year.

## Examples of learner A's work

Question 24 **1 2 3 4** Time Taken: 1 min 57 secs **Correct**

[Edexcel GCSE(9-1) Mock Set 2 Spring 2017 1H Q18]

Fully simplify

$$\frac{4}{\frac{1}{\sqrt{3}} + \sqrt{3}}$$

(3 marks)

Correct Answer:

$$\sqrt{3}$$

Their Answer:

$$\sqrt{3}$$

[Report Error](#)

Provide feedback to student

Override mark

See full markscheme

## Examples of learner A's knowledge gaps

Progress by Topic ▼ (GCSE Gp1) Quick Class Select ▼

Exam Qs ▼ KS2/3/4 - Number ▼  Question Data  Videos Watched Export

Calculate values after compound percentage changes, e.g. compound interest. Percentages Correct: 3/4	75%	Select a row on the left.
Understand power notation and calculate simple powers, e.g. squares, cubes. Powers, Roots & Laws of Indices Correct: 1/1	100%	
Use laws of indices for multiplying powers, dividing powers and raising a power to a power. Deal with a power of 0. Powers, Roots & Laws of Indices Correct: 13/13	100%	
Deal with negative indices. Powers, Roots & Laws of Indices Correct: 6/8	75%	
Deal with fractional indices. Powers, Roots & Laws of Indices Correct: 5/9	56%	

## Learner A's usage summary

DFM Usage Summary				
Start Date:	2020-09-01			
End Date:	2021-05-13			
Name	Points	Qs Answered	Time Spent on Qs	Watch Time
	5825	928	35h 42m	1h 37m

## Learner A usage summary by month

Month	Time spent on Dr Frost
September	44 minutes
October	5 hours and 18 minutes
November	1 hour and 25 mins
December	0 hours 0 minutes
January	10 hours and 40 minutes
February	6 hours and 13 minutes
March	10 hours and 1 minute
April	2 hours and 36 minutes

## Evidence of videos watched for self-study

Videos Watched [Redacted] Quick Class Select

Exam Qs KS2/3/4 - Algebra  Question Data  Videos Watched

Export	Changing the Subject Change the subject of a formula where the subject appears once only.	Changing the Subject Change the subject of a formula where the subject appears multiple times.	Curved Graphs Identify the minimum or maximum point of a quadratic graph by completing the square.	Factorising Factorise the difference of two squares.
<span style="background-color: red; color: white; padding: 2px 10px;">[Redacted]</span>	View Time: 15:45 Sessions: 1	View Time: 5:05 Sessions: 1	View Time: 10:05 Sessions: 1	View Time: 0:45 Sessions: 1

Videos Watched [Redacted] Quick Class Select

Exam Qs KS2/3/4 - Number  Question Data  Videos Watched

Export	Rounding & Estimation Estimate the result of a calculation by first rounding each number.	Rounding & Estimation Calculate the upper and lower bound of rounded values or identify an error interval.	Rounding & Estimation Use lower and upper bounds within calculations to calculate a further lower/upper bound.	Surds Add and subtract surds.
<span style="background-color: red; color: white; padding: 2px 10px;">[Redacted]</span>	View Time: 6:00 Sessions: 1	View Time: 6:55 Sessions: 1	View Time: 7:15 Sessions: 1	View Time: 3:35 Sessions: 1

## Overall yearly college ranking

Videos Watched [REDACTED] Quick Class Select

Exam Qs KS2/3/4 - Shape, Space & Measures  Question Data  Videos Watched

Export	3D Volume, Surface Area Find the volume of a pyramid, cone or sphere	3D Volume, Surface Area Find the volume of a cuboid.	3D Volume, Surface Area Find the surface area of a cuboid or other non-curved solids.	Compound Measures and Units of Measurement Pressure / Density / Rate of Flow	Compound Measures and Units of Measurement Convert between units of area and volume.
<span style="background-color: red; color: white; padding: 2px 10px;">[REDACTED]</span>	View Time: 10:10 Sessions: 1	View Time: 4:15 Sessions: 1	View Time: 2:05 Sessions: 1	View Time: 11:30 Sessions: 1	View Time: 2:50 Sessions: 1

## Overall yearly college ranking

Chesterfield College **#2:** [REDACTED]

Chesterfield College - GCSE Gp1

Points: 5789

## Learner B

Learner B achieved a grade 2 their Year 11 exam. They had a shaky start to their first year at Chesterfield college year in terms of attendance and effort, in the November resit they gained a grade 2 again.

After the November exam this learner showed a big improvement in effort, they decided to do extra maths in December and their attendance improved. I think after being a little overconfident, the November exam was a wake-up call.

This learner was working a part time job whilst studying and found it hard to balance work and college.

*'Lockdown saved me'*

When asked if online learning suited them, they said it 'saved' them. Not only because they were furloughed and had more time to study but because they found there were far less distractions at home.

Learner B liked using Dr Frost for classwork and was able to write their working out for each question easily using his touch screen laptop. They really liked being able to identify their weaker topics using Dr Frost and, like learner A, preferred maths genie because of the rough breakdown of topics by grade.

*'I have never revised for a maths exam before'*

When probed further it was clear that this learner didn't really know how to revise for maths. It has made it clear to me that many other learners feel the same. One shown how to revise I believe maths became a lot less daunting for them and they revised in their own time regularly. In maths GCSE the content is very broad, but spotting gaps in knowledge and plugging them felt efficient and gave this learner much more direction.

## Examples of learner B's work

**Question 7 2** Time Taken: 1 min 4 secs **Incorrect: 0/2**

[Edexcel GCSE(9-1) Nov 2018 2F Q6]

Here are four fractions.

Put the fractions in order of size.  
Start with the smallest fraction.

(2 marks)

Correct Answer:  
the order: " $\frac{5}{7}, \frac{11}{15}, \frac{3}{4}, \frac{19}{25}$ "  
Their Answer:  
 $\frac{19}{25}, \frac{11}{15}, \frac{5}{7}, \frac{3}{4}$

[Report Error](#)

[Override mark](#)

[See full markscheme](#)

 **Mr Riley** 3 months ago

You would have gained marks here for 3 in order Or turning 2 of these fractions into decimals.  
Hint: turn the fractions into decimals to order - [Delete](#)

Type your message here. Use Alt+= to insert mathematical text.

Use same feedback for all students who already have an incorrect answer for this question.

[Submit](#)

**Question 17 2** Time Taken: 4 mins 31 secs **Correct: 3/3**

[Edexcel GCSE(9-1) Nov 2018 2F Q13b]

The diagram shows a right-angled triangle and a parallelogram.



The area of the parallelogram is 5 times the area of the triangle.

The perpendicular height of the parallelogram is  $h$  cm.

Find the value of  $h$

(3 marks)

Correct Answer:

$$h = 12 \text{ cm}$$

Their Answer:

$$h = 12 \text{ cm}$$

16 mult

72 mult

Report Error

Provide feedback to student

Override mark

See full markscheme

## Examples of learner B's knowledge gaps

Progress by Topic ▼ KS2/3/4 - Number Quick Class Select ▼

Exam Qs ▼ KS2/3/4 - Number Question Data Videos Watched Export

Reason about remainders, including even/oddsness. <b>100%</b> <small>Factors, Multiples and Primes Correct: 1/1</small>	Select a row on the left.
Find the prime factorisation of a number. <b>50%</b> <small>Factors, Multiples and Primes Correct: 5/10</small>	
Find factors or multiples of a number. <b>73%</b> <small>Factors, Multiples and Primes Correct: 11/15</small>	
Find the Lower Common Multiple or Highest Common Factor of two numbers. <b>33%</b> <small>Factors, Multiples and Primes Correct: 1/3</small>	
Identify prime numbers. <b>36%</b> <small>Factors, Multiples and Primes Correct: 4/11</small>	
Add or subtract proper/improper fractions. <b>40%</b>	

## Learner B usage summary

DFM Usage Summary				
Start Date:	2020-09-01			
End Date:	2021-05-13			
Name	Points	Qs Answered	Time Spent on Qs	Watch Time
	2886	617	34h 30m	1h 41m

## Learner B usage summary by month

Month	Time spent on Dr Frost
September	48 minutes
October	6 hours and 17 minutes
November	2 hours and 12 minutes
December	6 hours and 49 minutes
January	6 hours and 13 minutes
February	6 hours and 30 minutes
March	5 hours and 59 mins
April	1 hour and 33 minutes

## Evidence of videos watched for self-study

Exam Qs	KS2/3/4 - Number	Question Data	Videos Watched
Export	Factors, Multiples and Primes Find the Lower Common Multiple or Highest Common Factor of two numbers.	Factors, Multiples and Primes Find the prime factorisation of a number.	Rounding & Estimation Round a number to a given number of decimal places.
	View Time: 2:55 Sessions: 1	View Time: 2:10 Sessions: 1	View Time: 6:20 Sessions: 1
			View Time: 7:15 Sessions: 1

Exam Qs ▾ KS2/3/4 - Shape, Space & Measures ▾  Question Data  Videos Watched

Export	Angles Know that the sum of the angles in a triangle is 180 degrees.	Transformations Reflect a shape in a line with given equation.
	View Time: 1:00 Sessions: 1	View Time: 1:25 Sessions: 1

Exam Qs ▾ KS2/3/4 - Algebra ▾  Question Data  Videos Watched

Export	Curved Graphs Identify the minimum or maximum point of a quadratic graph by completing the square.	Sequences Find terms of a sequence given a term-to-term rule.	Solving Equations Solve linear equations where the variable appears on both sides of the equation.	Solving Equations Solve linear equations where the variable appears on one side of the equation only.	Straight Line Graphs Find the gradient of a line given two points.	Straight Line Graphs Determine the equation of a straight line.
	View Time: 16:50 Sessions: 1	View Time: 3:30 Sessions: 1	View Time: 4:45 Sessions: 1	View Time: 2:50 Sessions: 1	View Time: 10:50 Sessions: 1	View Time: 31:20 Sessions: 1

## Overall yearly college ranking

Chesterfield College **#19:** [Redacted]

Chesterfield College - GCSE Gp1  
Points: 2886

## Learner C

Learner C was home-schooled last year and has no GCSE qualifications as yet. They joined the kickstart course this year and have put a lot of effort into studying maths.

This learner preferred attending college in person to see their friends but feels they worked harder at home because there was less of a distraction. They used a laptop or ipad to access Dr Frost and found the set work easy to find and complete but showing working out a little tricky.

*'I am not keen on the Dr Frost videos but like the site for being able to answer questions and see feedback'*

Other learners can feel the same way about the instructional videos on Dr Frost. I don't think this has to do with the quality of videos (I find them perfectly fine for brushing up on my A-level skills) but more to do with how our learners learn. They often prefer things broken down into individual skills then practicing that skill before moving on to the next.

*'I revised once using Dr Frost'*

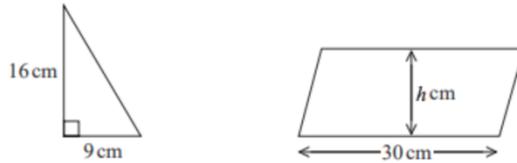
This learner only did maths revision once in their own time but they would do revision in class time when learners were directed to individually.

## Examples of learner C's work

Question 17 2 Time Taken: 2 mins 2 secs Partial Credit: 1/3

[Edexcel GCSE(9-1) Nov 2018 2F Q13b]

The diagram shows a right-angled triangle and a parallelogram.



The area of the parallelogram is 5 times the area of the triangle.  
The perpendicular height of the parallelogram is  $h$  cm.

Find the value of  $h$

(3 marks)

Correct Answer:

$$h = 12 \text{ cm}$$

Their Answer:

$$h = 2.4 \text{ cm}$$

Handwritten student work on a grid background showing calculations:

$$16 \times 9 = 144$$
$$\div 2 = 72$$
$$72 \div 30 = 2.4 ?$$

Override mark

See full markscheme

Mr Riley

Good effort. You found the area of a triangle well. Be careful reading the question... the area of the parallelogram is 5 times the area of the triangle. Your last step of dividing by 30 is correct. - [Delete](#)

Type your message here. Use Alt+Equals to insert mathematical text.

Use same feedback for all students who already have an incorrect answer for this question.

Submit

## Examples of learner C's knowledge gaps

Progress by Topic ▼   Quick Class Select ▼

Exam Qs ▼ KS2/3/4 - Number ▼  Question Data  Videos Watched Export

<p>Find the Lower Common Multiple or Highest Common Factor of two numbers. <span style="float: right;">75%</span></p> <p><small>Factors, Multiples and Primes</small></p> <p><small>Correct: 6/8</small></p>	<p>Select a row on the left.</p>
<p>Identify prime numbers. <span style="float: right;">58%</span></p> <p><small>Factors, Multiples and Primes</small></p> <p><small>Correct: 7/12</small></p>	
<p>Add or subtract proper/improper fractions. <span style="float: right;">75%</span></p> <p><small>Fractions</small></p> <p><small>Correct: 9/12</small></p>	
<p>Multiply fractions/mixed numbers. <span style="float: right;">100%</span></p> <p><small>Fractions</small></p> <p><small>Correct: 1/1</small></p>	
<p>Divide fractions/mixed numbers. <span style="float: right;">0%</span></p> <p><small>Fractions</small></p> <p><small>Correct: 0/1</small></p>	
<p>Understand equivalent fractions. <span style="float: right;">59%</span></p>	

## Learner C usage summary

DFM Usage Summary				
Start Date:	2020-09-01			
End Date:	2021-06-15			
Name	Points	Qs Answered	Time Spent on Qs	Watch Time
	3415	727	50h 27m	1h 12m

## Learner C usage summary by month

Month	Time spent on Dr Frost
September	6 hours and 34 minutes
October	22 hours and 35 minutes
November	10 hours and 39 minutes
December	6 hours and 9 minutes
January	3 hours and 5 minutes
February	1 hour and 38 minutes
March	2 hours and 11 minutes
April	5 hours and 32 minutes

## Evidence of videos watched for self-study

Videos Watched Quick Class Select

Exam Qs KS2/3/4 - Number  Question Data  Videos Watched

Export	Rounding & Estimation Round a number to a given number of decimal places.	Rounding & Estimation Round a number to a given number of significant figures.
Dorricott, Ella	View Time: 7:50 Sessions: 2	View Time: 14:30 Sessions: 2

Videos Watched Quick Class Select

Exam Qs KS2/3/4 - Data Handling & Probability  Question Data  Videos Watched

Export	Probability List a sample space for one event or combined events.
Dorricott, Ella	View Time: 11:30 Sessions: 2

Videos Watched		Quick Class Select				
Exam Qs	KS2/3/4 - Algebra	<input type="radio"/> Question Data <input checked="" type="radio"/> Videos Watched				
<b>Export</b>	<b>Curved Graphs</b> Identify the minimum or maximum point of a quadratic graph by completing the square.	<b>Formulae and Simplifying Expressions</b> Collect like terms.	<b>Formulae and Simplifying Expressions</b> Divide single algebraic terms.	<b>Straight Line Graphs</b> Find the gradient of a line given two points.	<b>Straight Line Graphs</b> Determine the equation of a straight line.	<b>Straight Line Graphs</b> Be able to draw a line using its equation.
Dorricott, Ella	View Time: 29:00 Sessions: 2	View Time: 13:20 Sessions: 2	View Time: 1:40 Sessions: 2	View Time: 22:10 Sessions: 8	View Time: 23:10 Sessions: 2	View Time: 21:00 Sessions: 2

## Overall yearly college ranking

 **#13:** ██████████

Chesterfield College - GCSE Gp1, Kickstart demo

Points: 3415

## Learner D

This learner emigrated to the UK in 2020. They had no prior GCSEs but qualifications from their previous country of residence. They joined the kickstart course this year.

When asked how they found the difference studying in the UK they said they liked the focus on wellbeing of learners in the college and found it refreshing.

This learner found there were as many distractions at home as in college so neither liked or disliked online learning.

*'I liked the computer room lesson'*

This learner preferred to type answers than to draw working out and found working out on paper/ the table easier. Some learners liked the novelty of using a computer to do maths and especially using the tables to show working and for me to model answers using a board pen. When completing Formative assessment 3 on Dr Frost, this learner submitted supplementary written work to gain working out marks.

*'I needed (the direction) to be honest'*

When asked how this learner revised they said they would refer to my instructional video if they forgot how to find gaps and then use Dr Frost videos and questions to practice. If they didn't understand a instructional video they would turn to YouTube for an alternative explanation.

## Examples of learner D's work

Question 13 2 Time Taken: 2 mins 46 secs Correct: 2/2

[Edexcel GCSE(9-1) Nov 2018 2F Q10b]

Here is a number machine.



Work out the **input** when the output is 28

(2 marks)

Correct Answer:  
6  
Their Answer:  
6

6x5-2

[Report Error](#)

Provide feedback to student    Override mark    See full markscheme

### Examples of learner D's knowledge gaps

Progress by Topic    (GCSE Gp1, Kickstart demo)    Quick Class Select

Exam Qs    KS2/3/4 - Number    Question Data    Videos Watched    Export

Calculate values after compound percentage changes, e.g. compound interest. Percentages Correct: 2/3	67%	Select a row on the left.
Find what percentage one number is of another. Percentages Correct: 1/2	50%	
Find a percentage of an amount. Percentages Correct: 11/14	79%	
Find a value after a percentage change. Percentages Correct: 9/11	82%	
Use decimal multipliers to represent finding a percentage of an amount or a percentage change.	0%	

### Learner D usage summary

DFM Usage Summary				
Start Date:	2020-09-01			
End Date:	2021-05-13			
Name	Points	Qs Answered	Time Spent on Qs	Watch Time
	3786	681	50h 59m	3h 27m

## Learner D usage summary by month

Month	Time spent on Dr Frost
September	5 hours and 3 minutes
October	11 hours and 6 minutes
November	4 hours and 44 minutes
December	4 hours and 5 minutes
January	6 hours and 21 minutes
February	6 hours and 17 minutes
March	3 hours and 15 minutes
April	13 hours and 22 minutes

## Evidence of videos watched for self-study

Videos Watched
(GCSE Gp1, Kickstart demo)
Quick Class Select

---

Exam Qs
KS2/3/4 - Number
Question Data
 Videos Watched

	Factors, Multiples and Primes Find factors or multiples of a number.	Factors, Multiples and Primes Identify prime numbers.	Factors, Multiples and Primes Find the prime factorisation of a number.	Fractions Understand equivalent fractions.
Export	View Time: 16:10 Sessions: 2	View Time: 13:10 Sessions: 2	View Time: 16:20 Sessions: 2	View Time: 13:50 Sessions: 2

---

Exam Qs
KS2/3/4 - Algebra
Question Data
 Videos Watched

	Curved Graphs Identify the minimum or maximum point of a quadratic graph by completing the square.	Formulae and Simplifying Expressions Collect like terms.	Formulae and Simplifying Expressions Multiply single algebraic terms.	Solving Equations Solve linear equations where the variable appears on one side of the equation only.
Export	View Time: 24:50 Sessions: 2	View Time: 19:30 Sessions: 2	View Time: 12:30 Sessions: 2	View Time: 23:30 Sessions: 2

## Overall yearly college ranking

 Chesterfield College

#8: 

Chesterfield College - GCSE Gp1, Kickstart demo

Points: 3784

## Learner E

Learner E dropped out of school in year 11 with no GCSE results and joined college for the kickstart course the year after. They described being in bottom sets in throughout year school and not really enjoying it.

*'At the start I had no motivation whatsoever'*

They had a poor start to the year in college and described having 'no motivation whatsoever'. After some self-reflection they realised they didn't want to waste a year and college would help them achieve a successful career.

*'The resources support really helped me catch up, progress and achieve'*

*'An easy way to catch up'*

This learner was playing catch up with Dr Frost activities. Some learners can become overwhelmed with too much work set, especially when they fall behind but this learner liked that the direction and that everything they had to do was in one place.

Learner E did not really like online learning in general but found Dr Frost exercises easily accessible on their drawing tablet. They liked being able to identify their gaps in knowledge later on in the year and used Dr Frost for self-study a lot after Christmas. They also won a prize for their activity on Dr Frost in February.

Their preferred method of self-study was Dr Frost, with Maths Genie and GCSE BBC Bitesize being their alternative. They really liked the power of knowing their weaker topics and being able to choose the amounts of questions to practice on Dr Frost. They weren't too keen on topic tests and chose 'practicing their skill' to try questions.

*'I like the feedback box'*

Learner E liked being able to type messages to me in the feedback box and then being able to respond to my reply or hint.

## Examples of learner E's work

Question 42 Time Taken: 1 min 52 secs Incorrect: 0/1

[Edexcel GCSE(9-1) Nov 2018 2F Q3b]

Change 7.3 m into mm.

(1 mark)

Correct Answer:

7300 mm

Their Answer:

0.0073 mm

$7.3 \div 1000$

[Report Error](#)

[Override mark](#)

[See full markscheme](#)

 **Mr Riley** 3 months ago

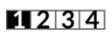
1metre = 1000mm

So you need to do  $7.3 \times 1000$  - [Delete](#)

Type your message here. Use Alt+Equals to insert mathematical text.

Use same feedback for all students who already have an incorrect answer for this question.

[Submit](#)

Question 14  Time Taken: 10 mins 42 secs Incorrect

[Edexcel GCSE Nov2010-2F Q19aii Edited]

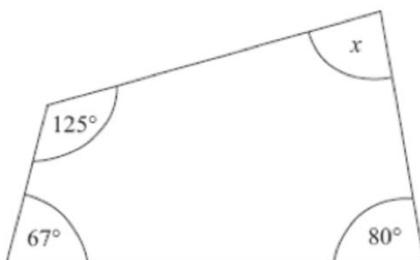


Diagram **NOT** accurately drawn

Give a reason why  $x = 88^\circ$ .

(1 mark)

Correct Answer:  
"angles in a quadrilateral"  
Their Answer:  
 $125+80+67+88=360$

[Report Error](#)

Override mark

See full markscheme

 4 months ago

this is extremely vague, what qualifies as a "reason" - [Delete](#)

 months ago

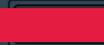
using words... e.g. the angles in a quadrilateral add together to make 360 degrees - [Delete](#)

Type your message here. Use Alt+Equals to insert mathematical text.

Use same feedback for all students who already have an incorrect answer for this question.

Submit

## Examples of learner E's knowledge gaps

Progress by Topic   (GCSE Gp1,Kickstart demo) Quick Class Select 

Exam Qs  KS2/3/4 - Number   Question Data  Videos Watched [Export](#)

Factors, Multiples and Primes Correct: 16/17	
Find the Lower Common Multiple or Highest Common Factor of two numbers. Factors, Multiples and Primes Correct: 4/4	100%
Identify prime numbers. Factors, Multiples and Primes Correct: 11/12	92%
Add or subtract proper/improper fractions. Fractions Correct: 2/4	50%
Multiply fractions/mixed numbers. Fractions Correct: 1/2	50%
Divide fractions/mixed numbers. Fractions Correct: 0/1	0%

Select a row on the left.

## Learner E usage summary

DFM Usage Summary				
Start Date:	2020-09-01			
End Date:	2021-05-13			
Name	Points	Qs Answered	Time Spent on Qs	Watch Time
	3789	706	35h 17m	1h 22m

## Learner E usage summary by month

Month	Time spent on Dr Frost
September	1 hour and 18 minutes
October	2 Hours and 25 minutes
November	20 minutes
December	44 minutes
January	20 hours and 46 minutes
February	2 hours and 50 minutes
March	7 hours and 7 minutes
April	2 Hours and 56 minutes

## Evidence of videos watched for self-study

Videos Watched		Quick Class Select				
Exam Qs	KS2/3/4 - Algebra	<input type="radio"/> Question Data <input checked="" type="radio"/> Videos Watched				
<b>Export</b>	<b>Curved Graphs</b> Identify the minimum or maximum point of a quadratic graph by completing the square.	<b>Formulae and Simplifying Expressions</b> Collect like terms.	<b>Sequences</b> Find the nth term formula for a linear sequence.	<b>Straight Line Graphs</b> Be able to draw a line using its equation.	<b>Straight Line Graphs</b> Find the gradient of a line given two points.	<b>Straight Line Graphs</b> Determine the equation of a straight line.
Sherriff, Kai	View Time: 43:50 Sessions: 2	View Time: 0:50 Sessions: 2	View Time: 17:50 Sessions: 2	View Time: 21:00 Sessions: 2	View Time: 15:30 Sessions: 2	View Time: 20:40 Sessions: 2

Videos Watched		Quick Class Select	
Exam Qs	KS2/3/4 - Data Handling & Probability	<input type="radio"/> Question Data <input checked="" type="radio"/> Videos Watched	
<b>Export</b>	<b>Averages and Range</b> Mean, mode, median, range from listed data.	<b>Probability</b> List a sample space for one event or combined events.	
Sherriff, Kai	View Time: 12:10 Sessions: 2	View Time: 9:20 Sessions: 2	

## Overall yearly college ranking


#9:
[Redacted]

Chesterfield College - GCSE Gp1, Kickstart demo

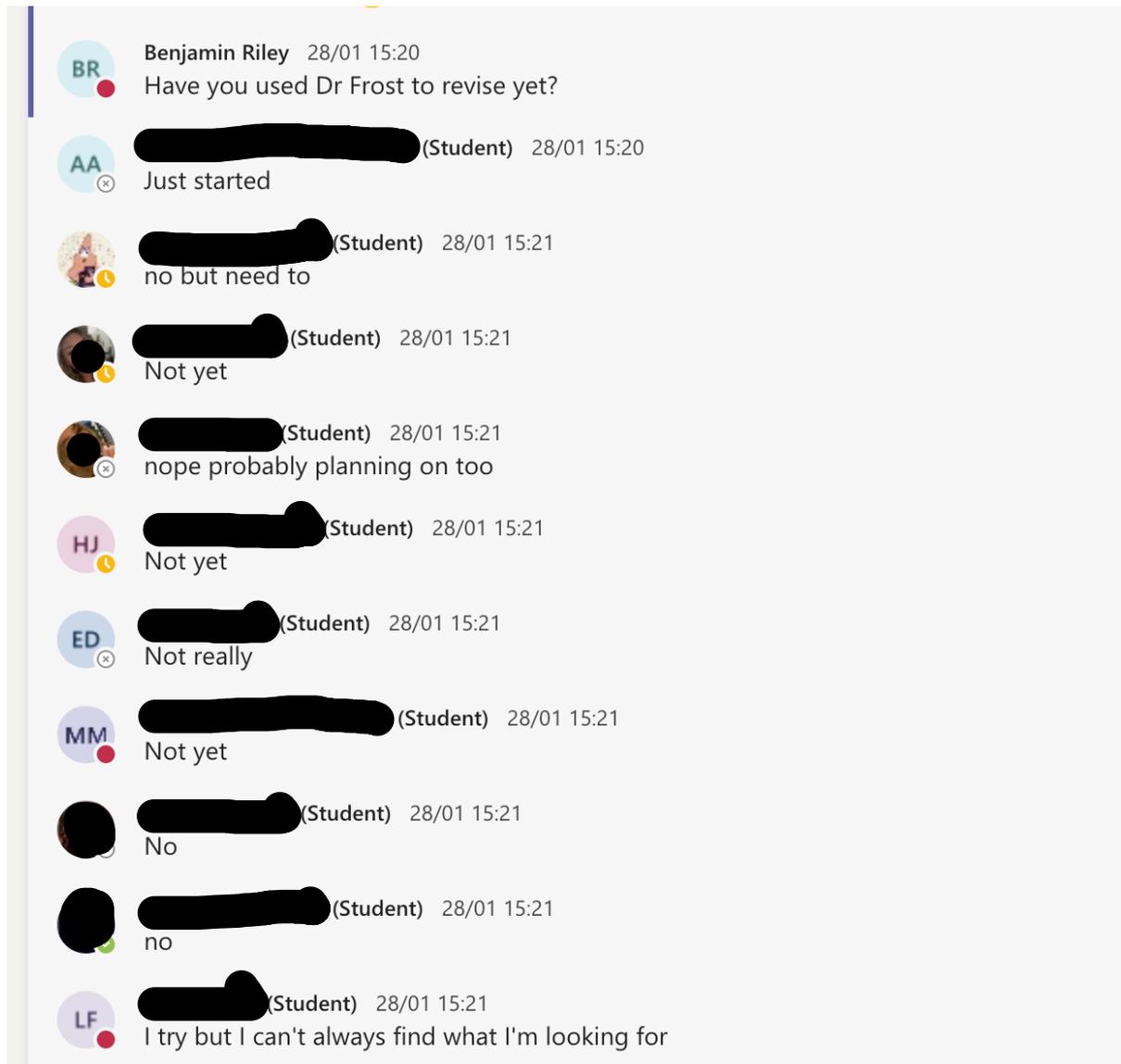
Points: 3780

## Appendix 4 – Class discussions

### Discussion 1 with Kickstart learners about DFM

In January I decided to have a discussion with my kickstart learners about their use of Dr Frost and if they have used it to revise yet.

#### Discussion 1



A screenshot of a chat conversation on a light grey background. The chat shows a sequence of messages from Benjamin Riley and several students. Benjamin Riley asks if they have used Dr Frost to revise yet. The students respond with various answers: 'Just started', 'no but need to', 'Not yet', 'nope probably planning on too', 'Not yet', 'Not really', 'Not yet', 'No', 'no', and 'I try but I can't always find what I'm looking for'. Each message includes a circular profile picture with initials, a name, and a timestamp.

BR Benjamin Riley 28/01 15:20  
Have you used Dr Frost to revise yet?

AA (Student) 28/01 15:20  
Just started

(Student) 28/01 15:21  
no but need to

(Student) 28/01 15:21  
Not yet

(Student) 28/01 15:21  
nope probably planning on too

HJ (Student) 28/01 15:21  
Not yet

ED (Student) 28/01 15:21  
Not really

MM (Student) 28/01 15:21  
Not yet

(Student) 28/01 15:21  
No

(Student) 28/01 15:21  
no

LF (Student) 28/01 15:21  
I try but I can't always find what I'm looking for



Benjamin Riley 28/01 15:22

Do you know how to use Dr Frost to revise?



(Student) 28/01 15:22

nope 😊



(Student) 28/01 15:22

i think so



(Student) 28/01 15:22

Kind of



(Student) 28/01 15:22

yes



(Student) 28/01 15:22

Yes



(Student) 28/01 15:22

Not really



(Student) 28/01 15:22

Think so



(Student) 28/01 15:22

Yes



(Student) 28/01 15:22

kinda



Benjamin Riley 28/01 15:23

Have you watched my video on how to revise using Dr Frost?



(Student) 28/01 15:23

nope not yet



(Student) 28/01 15:23

No



(Student) 28/01 15:23

No



(Student) 28/01 15:23

No



(Student) 28/01 15:23

what video



(Student) 28/01 15:23

No



(Student) 28/01 15:23

No



(Student) 28/01 15:23

no



(Student) 28/01 15:23

no



(Student) 28/01 15:23

No



(Student) 28/01 15:23

no



(Student) 28/01 15:23

No

BR Benjamin Riley 28/01 15:24  
Have you watched any Dr Frost videos?

[Redacted] (Student) 28/01 15:24  
Only in lesson

AA [Redacted] (Student) 28/01 15:24  
Yes

[Redacted] (Student) 28/01 15:24  
yes

[Redacted] (Student) 28/01 15:24  
yes

LF [Redacted] (Student) 28/01 15:24  
No. I don't find them helpfull

CT [Redacted] (Student) 28/01 15:24  
yes

ED [Redacted] (Student) 28/01 15:24  
Only when forced to 😊

[Redacted] (Student) 28/01 15:24  
Or if I have too

HJ [Redacted] (Student) 28/01 15:24  
No

[Redacted] (Student) 28/01 15:24  
Init Ella 😂😂😂

[Redacted] (Student) 28/01 15:24  
No

[Redacted] (Student) 28/01 15:24  
no

[Redacted] (Student) 28/01 15:25  
yes

MM [Redacted] (Student) 28/01 15:25  
Sometimes

[Redacted] (Student) 28/01 15:25  
no

- BR Benjamin Riley 28/01 15:25  
Do you find the videos useful?
- [Redacted] (Student) 28/01 15:25  
No
- [Redacted] (Student) 28/01 15:25  
no
- [Redacted] (Student) 28/01 15:25  
no not really
- [Redacted] (Student) 28/01 15:25  
no i don't like the guy
- ED [Redacted] (Student) 28/01 15:25  
Not really
- AA [Redacted] (Student) 28/01 15:25  
Complicated explanations
- LF [Redacted] (Student) 28/01 15:25  
No
- [Redacted] (Student) 28/01 15:25  
Nope
- HJ [Redacted] (Student) 28/01 15:25  
No
- KS [Redacted] (Student) 28/01 15:25  
Doesnt cover tha actual topic
- MM [Redacted] (Student) 28/01 15:25  
Nope
- [Redacted] (Student) 28/01 15:25  
He's borina

- CT [Redacted] (Student) 28/01 15:25  
sometimes
- [Redacted] (Student) 28/01 15:25  
not particularly



Benjamin Riley 28/01 15:26

Do you find knowing the name of topics you are weaker on helpful?



(Student) 28/01 15:26

Yeah, then i use other websites



(Student) 28/01 15:26

Yes



(Student) 28/01 15:26

Yes



(Student) 28/01 15:26

defo



(Student) 28/01 15:26

Yes



(Student) 28/01 15:26

yes



(Student) 28/01 15:26

Yes



(Student) 28/01 15:26

Yes



(Student) 28/01 15:26

Yeah



(Student) 28/01 15:26

yes



(Student) 28/01 15:26

Not really



(Student) 28/01 15:26

yh



(Student) 28/01 15:27

yeh

BR Benjamin Riley 28/01 15:27  
Would you like more website to be able to revise from when you know the names of the topics?

KS (Student) 28/01 15:27  
Sure

AA (Student) 28/01 15:27  
Yes

(Student) 28/01 15:27  
yeah

(Student) 28/01 15:28  
Yeah

(Student) 28/01 15:28  
no

(Student) 28/01 15:28  
yes

LF (Student) 28/01 15:28  
Maybe

ED (Student) 28/01 15:28  
Yeahhh

(Student) 28/01 15:28  
No

CT (Student) 28/01 15:28  
yes

HJ (Student) 28/01 15:28  
No

(Student) 28/01 15:28  
then u can find which suits you best

(Student) 28/01 15:28  
yes

MM (Student) 28/01 15:28  
Yes

BR Benjamin Riley 28/01 15:29  
Hollie says: dr frost is a bit dull - would like to try something else

Will a competitive element encourage you to do more on Dr Frost?

-  (Student) 28/01 15:30  
yeh
-  (Student) 28/01 15:30  
Whynot
-  (Student) 28/01 15:30  
yes

 (Student) 28/01 15:30  
Probably yeah

 (Student) 28/01 15:30  
Yess

 (Student) 28/01 15:30  
No

 (Student) 28/01 15:30  
meh

 (Student) 28/01 15:30  
Yes

 (Student) 28/01 15:30  
yes

 (Student) 28/01 15:30  
No

 (Student) 28/01 15:30  
not bothered

 (Student) 28/01 15:30  
I dont care 😂

 (Student) 28/01 15:30  
idm

BR Benjamin Riley 28/01 15:31  
Do you look at the feedback given by Dr Frost?

[Redacted] (Student) 28/01 15:31  
yes

[Redacted] (Student) 28/01 15:31  
no

CT [Redacted] (Student) 28/01 15:31  
yes

MM [Redacted] (Student) 28/01 15:31  
Yes

[Redacted] (Student) 28/01 15:31  
Not really

AA [Redacted] (Student) 28/01 15:31  
Yes

LF [Redacted] (Student) 28/01 15:31  
Yes

ED [Redacted] (Student) 28/01 15:31  
Don't know how to 😊

[Redacted] (Student) 28/01 15:31  
no

[Redacted] (Student) 28/01 15:31  
not really

HJ [Redacted] (Student) 28/01 15:31  
No

[Redacted] (Student) 28/01 15:31  
i don't like not knowing where i've gone wrong

KS [Redacted] (Student) 28/01 15:31  
Didnt know that was a thing

BR Benjamin Riley 28/01 15:33  
If you were to use Dr Frost as a teacher how would you use it?

KS [Redacted] (Student) 28/01 15:33  
It should be optional

ED [Redacted] (Student) 28/01 15:33  
Explain how to work it out then let students have a go on doctor frost see how well they understand it

LF [Redacted] (Student) 28/01 15:33  
Teaching first

[Redacted] (Student) 28/01 15:33  
Break it down

CT [Redacted] (Student) 28/01 15:34  
teach first then let them use it

MM [Redacted] (Student) 28/01 15:34  
Teaching first

[Redacted] (Student) 28/01 15:34  
I understand maths more when we're on dr frost in lesson and you write all over the tables

HJ [Redacted] (Student) 28/01 15:34  
Teaching firsts

[Redacted] (Student) 28/01 15:35  
dr frost then work on things people aren't as good on

BR Benjamin Riley 28/01 15:35  
Any other comments...

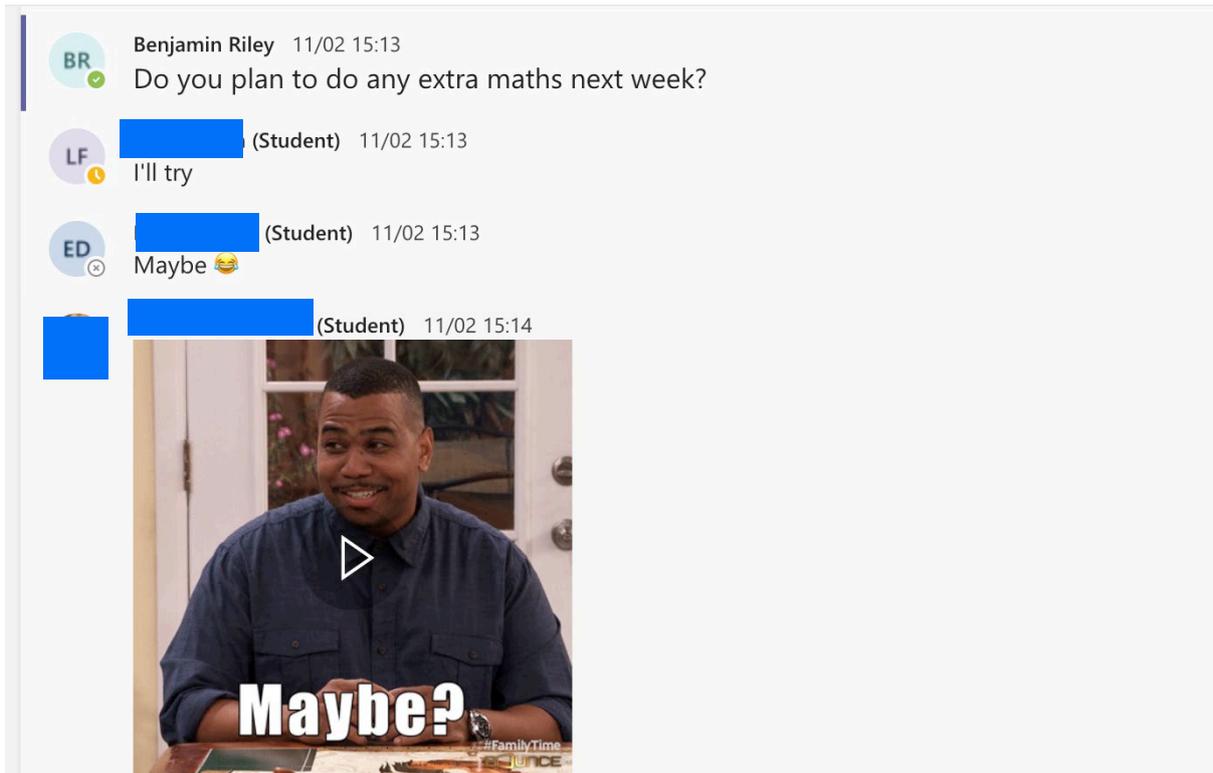
KS [Redacted] (Student) 28/01 15:36  
The questions are sometimes really vague and should be explained

AA [Redacted] (Student) 28/01 15:36  
Is the next exam going to be on dr frost

## Discussion 2 with Kickstart learners about revision resources

After showing learners how to spot gaps in knowledge using DFM we looked at different websites and discussed over Microsoft teams which they preferred. The aim of this exercise was to encourage learners to revise and plug their gaps in knowledge using their favourite resource.

## Discussion 2





(Student) 11/02 15:14



(Student) 11/02 15:14  
probably should



(Student) 11/02 15:14  
YES



(Student) 11/02 15:15





Benjamin Riley 11/02 15:15  
When do you plan to do it?



[Redacted] (Student) 11/02 15:16  
little bit everyday



[Redacted] (Student) 11/02 15:16  
yeh same



[Redacted] (Student) 11/02 15:16  
Evening probably



[Redacted] (Student) 11/02 15:16



[Redacted] (Student) 11/02 15:16  
During the afte



[Redacted] (Student) 11/02 15:16  
During the afte



[Redacted] (Student) 11/02 15:17  
couple times a week  
me and maths everyday wouldn't mix well



[Redacted] (Student) 11/02 15:17  
Evening



Benjamin Riley 11/02 15:17  
What topics will you be working on?



[Redacted] (Student) 11/02 15:18  
the ones i got wrong

no



[Redacted] (Student) 11/02 15:18  
algebra



[Redacted] (Student) 11/02 15:18  
Not sure yet



(Student) 11/02 15:19



alagabra

idk how to spell



Benjamin Riley 11/02 15:19

algebra

Corbett maths videos vs Dr Frost videos. Which are the best?



(Student) 11/02 15:20

Corbet maths



(Student) 11/02 15:20

corbett



(Student) 11/02 15:20

corbett

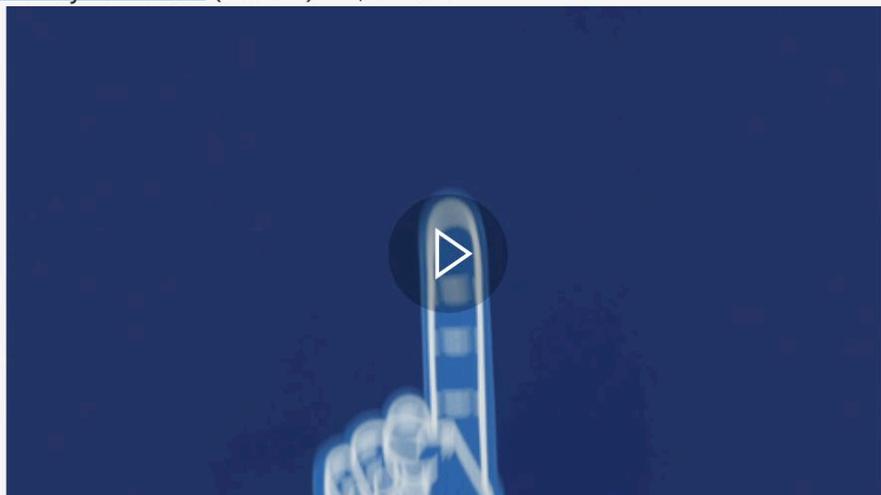


(Student) 11/02 15:20

Corbett



(Student) 11/02 15:20



BR Benjamin Riley 11/03 14:04  
DRFROST: What did you like about the video?

LF (Student) 11/03 14:04  
he gave lots of different examples

AA (Student) 11/03 14:05  
he made it seem possible to do

(Student) 11/03 14:05  
everything for sure 😊 😊

ED (Student) 11/03 14:06  
Explained it well

BR Benjamin Riley 11/03 14:07 Edited  
What did you dislike about the video?

AA (Student) 11/03 14:07  
talking very fast

(Student) 11/03 14:08  
he sound br

she sound bored

LF (Student) 11/03 14:09  
it was too long

HJ (Student) 11/03 14:09  
It was too long

-  Benjamin Riley 11/03 14:30  
Give the video a rating out of 10....
-  (Student) 11/03 14:30  
7
-  (Student) 11/03 14:30  
3/10
-  (Student) 11/03 14:31  
4
-  (Student) 11/03 14:31  
4
-  (Student) 11/03 14:31  
6
-  (Student) 11/03 14:31  
2
-  (Student) 11/03 14:31  
5 video 4 work
-  (Student) 11/03 14:31  
6
-  Benjamin Riley 11/03 14:31  
Give the topic test a rating out of 10...
-  (Student) 11/03 14:31  
7

-  (Student) 11/03 14:31  
1
-  (Student) 11/03 14:31  
6
-  (Student) 11/03 14:32  
0
-  (Student) 11/03 14:32  
4
-  (Student) 11/03 14:32  
4
-  (Student) 11/03 14:32  
5
-  (Student) 11/03 14:33  
4



Benjamin Riley 11/03 14:59  
Corbett maths: What did you like about the video?



[Redacted] (Student) 11/03 15:00  
slower



[Redacted] (Student) 11/03 15:00  
Found this little bit easier to follow



[Redacted] (Student) 11/03 15:00  
It was short and explained easily



[Redacted] (Student) 11/03 15:00  
yeah slower



Benjamin Riley 11/03 15:00  
What did you dislike about the video?



[Redacted] (Student) 11/03 15:01  
not sure



[Redacted] (Student) 11/03 15:01  
Nothing I can think of



Benjamin Riley 11/03 15:04  
<https://corbettmaths.com/wp-content/uploads/2017/12/area-of-a-circle.pdf>



[Redacted] (Student) 11/03 15:11  
I would definitely watch that 😄



Benjamin Riley 11/03 15:13  
Thoughts on the exercise?



[Redacted] (Student) 11/03 15:14

It was good



[Redacted] (Student) 11/03 15:14

Found this easier



[Redacted] (Student) 11/03 15:14

It was better to build up to more difficult questions



Benjamin Riley 11/03 15:15

Rate the video 1 -10...



[Redacted] (Student) 11/03 15:15

8



[Redacted] (Student) 11/03 15:15

easy to navigate through and easy to learn the style and methods



[Redacted] (Student) 11/03 15:15

7



[Redacted] (Student) 11/03 15:15

3



[Redacted] (Student) 11/03 15:16

6



[Redacted] (Student) 11/03 15:16

7



[Redacted] (Student) 11/03 15:16

5 1/2



Benjamin Riley 11/03 15:16  
Rate the exercise 1- 10



[Redacted] (Student) 11/03 15:17  
7



[Redacted] (Student) 11/03 15:17  
6



[Redacted] (Student) 11/03 15:17  
7



[Redacted] (Student) 11/03 15:17  
was ok



[Redacted] (Student) 11/03 15:17  
4



[Redacted] rd (Student) 11/03 15:17  
5



Benjamin Riley 11/03 15:24  
Maths genie: What did you like about the video



[Redacted] (Student) 11/03 15:24  
It was clearly explained



[Redacted] (Student) 11/03 15:24  
Shorter so easier to concentrate



[Redacted] (Student) 11/03 15:24  
not paper

 (Student) 11/03 15:25  
easy to look at

 BR  
Benjamin Riley 11/03 15:25  
What did you dislike about the video?

 (Student) 11/03 15:25  
i didnt dislike anything

 (Student) 11/03 15:26  
less examples

 (Student) 11/03 15:26  
Nothing

 BR  
Benjamin Riley 11/03 15:28  
Rate the video 1- 10

 (Student) 11/03 15:28  
7

 (Student) 11/03 15:28  
8

 (Student) 11/03 15:28  
8

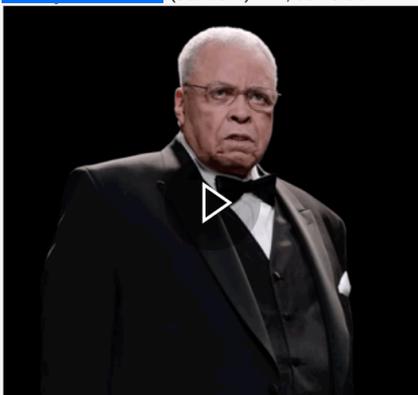
 (Student) 11/03 15:29  
7

 (Student) 11/03 15:29  
6

 BR  
Benjamin Riley 11/03 15:29  
Did you find this lesson useful?

 (Student) 11/03 15:30  
Yes

 (Student) 11/03 15:30



 (Student) 11/03 15:31  
Yes

## **Appendix 5 – Colleague experiences**

### **Andrew Hartley – Maths Tutor**

Apart from Formative assessments I used DFM to give topic practice based on recent lessons. Initially I feel I over cooked the amount of questions using generic topic tests and changed to self-created selected questions to condense students work load.

This was used to assess students' gaps and they were encouraged to repeat via videos etc. or catch up on these areas. I also tried to target self-revision using the activity button which RAGs their previous attempts at all topics.

Dislikes - Students could 'cheat' if at home.

Likes - Immense amount of resources for students to use. Immediate marking (sometimes not as fully accurate as would like) - two way feedback on questions between myself and students- Perfect for independent learning with shepherding from myself.

Those students that bought in to regular use of all aspects definitely improved.

CPD - We are continually improving but I feel we need to work together as a team to to decide how best to implement. Especially for students who struggle and have poor development of independent learning. It will be interesting to find out how this year goes - should be better.

### **Anar Rodriguez – Catch up tutor**

Good online platform, some excellent teaching resources, video and bank of questions. Formative assessment set by college were easy to access and set.

I liked that DFM was free. It has nice, easy accessible worksheets and good place to store work completed. A good evidence storage space for teachers. Also students can access work at any time and watch PowerPoints and videos to get support. Points based is excellent, really motivates students in my higher ability group.

Students who are low ability found some of the later homework questions difficult.

I had to invest a lot of time to use it and feel I need more time to fully understand it full potential (Just me maybe).

The majority of the students in catch-up said they liked it, less able students not so keen. One or two put in correct answers and they needed an override from teacher on homework. If internet is weak at home, their assessment disappeared and not stored.

Students found it difficult to input symbols and notation.

I need to learn more on using white board but mainly need time to play about with.

Students need more interactive training and a summary page to access easily online on College portal.

### **Tract Floyd Jones – Maths tutor**

I used Dr Frost mainly to set topic tests. I sometimes used the Key skills questions. I could look up my groups to see who had completed the work set and how each learner fared. I liked that I could see and feedback to the whole group or individual students. I loved that the work was marked for you. The only thing that I did not like was that the marking did not allow for part correct answers but I could override this. The majority of my learners really liked Dr Frost as they could get instant feedback

### **Christopher Gould – Maths coordinator**

I used Dr Frost with my GCSE students. I mainly used it as short homework sheets on topics we had covered in class, as well as the 2 formative assessments we completed on Dr Frost as a department. I liked being able to set work to students and see their progress, as well as their working out. I liked being able to give feedback to students, and set them additional work to develop their individual needs. Overall, I found the website very difficult to navigate as a teacher and often found it frustrating to set work. I think if the website was more user-friendly, I would have used it a lot more. I think I will need a refresher on how to use it more effectively before next academic year, and I want to explore how the key skills can be used with Functional Skills.

# Appendix 6 – Staff and student surveys

## Staff and student surveys after formative assessment 1

After using Dr Frost for our first formative assessment, colleagues and students were asked to complete a survey about their experiences. Here are surveys and the results.

### Staff survey 1

#### Dr Frost online assessment - staff feedback questionnaire

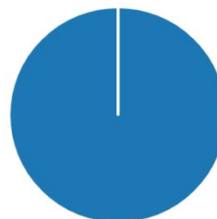
7 Responses      09:44 Average time to complete      Active Status

[View results](#)       Open in Excel

1. Did you use the Dr Frost online assessment for FA1?

[More Details](#)

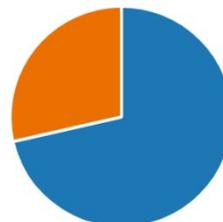
 Yes	7
 No	0



2. Did you use a combination of online/ paper assessments?

[More Details](#)

 Yes	5
 No	2



### 3. Roughly what percentage of those assessments did you set online?

6 Responses

ID ↑	Name	Responses
1	anonymous	100
2	anonymous	95%
3	anonymous	90
4	anonymous	95%
5	anonymous	30%
6	anonymous	30

### 4. Would you use Dr Frost to do a formative assessment in the future?

[More Details](#)

<span style="color: blue;">●</span> Yes	4
<span style="color: orange;">●</span> No	0
<span style="color: green;">●</span> Maybe	3



### 5. Any comments?

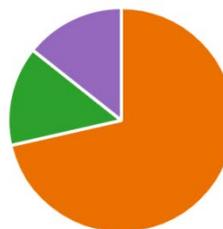
6 Responses

ID ↑	Name	Responses
1	anonymous	I don't think the students took it as seriously. Hard to tell if they just googled answers.
2	anonymous	I prefer to see how the student has answered questions. I know I can do that with Dr Frost; but just easier to see all answers together on paper.
3	anonymous	quick results we could do more assessments this way
4	anonymous	Pro - Easy to mark and give feedback. Easy to see gaps and common errors. Fast feedback. Con - doesn't show working as well as paper versions.
5	anonymous	I would only use this again for a formative assessment if students are supervised.
6	anonymous	I would use it more if the questions were more reflective of real AQA exam questions and therefore form a more realistic mock examination.

7. How useful do you find the feedback given by Dr Frost for FA1?

[More Details](#)

- Extremely useful 0
- Somewhat useful 5
- Neutral 1
- Somewhat not useful 0
- Extremely not useful 1



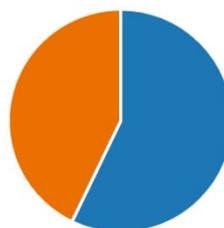
8. How will you use the formative results from Dr Frost to inform your teaching?

7 Responses

ID ↑	Name	Responses
1	anonymous	It helped me to see gaps which can be covered in the future.
2	anonymous	Refer students back to incorrect answers
3	anonymous	It highlights strengths and weaknesses and can be used for gap analysis and catch me up/ or Ion DR FROST could use this data to fill gaps immediately
4	anonymous	Revisit common errors. Later in the year I hope to set more individual tasks.
5	anonymous	It will identify gaps in students' learning that may need revisiting. it could link into shorter activities if
6	anonymous	Look at common errors
7	anonymous	It provide clear gap analysis on the topics in the assessment.

9. Have you set Dr Frost tasks to assess learning in class?

[More Details](#)



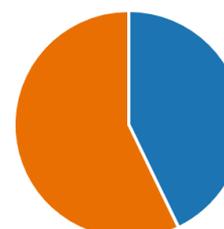
10. Have you used Dr Frost to set homework?

[More Details](#)



11. Have any of your learners used Dr Frost for self study or revision?

[More Details](#)



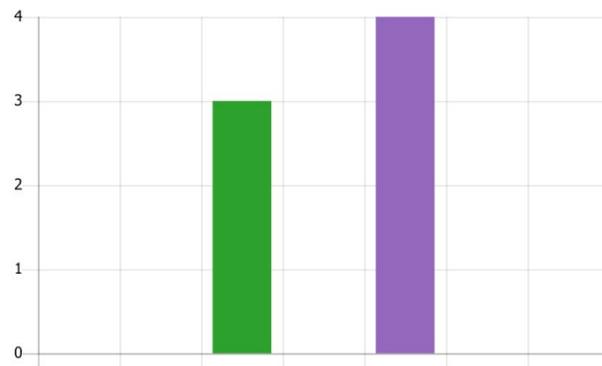
12. Please add any comments

5 Responses

ID ↑	Name	Responses
1	anonymous	Engagement with homework activities is poor.
2	anonymous	Students not keen on Dr Frost (maybe because they did not use it at school)
3	anonymous	Better students have used it well and benefitted. I feel I have perhaps set too many tests and need to look at it more to get the best out of it.
4	anonymous	Only work I've set.
5	anonymous	I need more time to invest in navigating the platform to use it to its full capacity.

### 13. How would you rate learner engagement with Dr Frost?

[More Details](#)



### 14. Any comments on learner engagement?

4 Responses

ID ↑	Name	Responses
1	anonymous	overall they find it easy to use but need to be motivated to use it (as any other form of learning)
2	anonymous	Apart from FA1 I only set Dr Frost as independent study work. This is optional for students.
3	anonymous	In some cases, students tend to engage with this as an alternative to workbook style resources.
4	anonymous	Some groups are using it a lot. Has improved since I have been choosing the questions.

## 15. How do you think we could improve the implementation of Dr Frost?

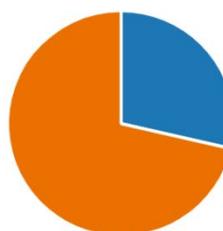
5 Responses

ID ↑	Name	Responses
1	anonymous	Prize incentive? Allow time to do in class/access to tech in class.
2	anonymous	Everyone doing the same thing and invoking the competition element with prizes
3	anonymous	A more thought out method of setting work across the classes and acting on the results immediately i.e catch up. Should it be part of the lesson so they can watch video as and do topic tests on areas they have struggled? We need a whole dept plan not lots of individual attempts. re Q16 A little support/ more sharing best practice to help get the correct
4	anonymous	We could have a limited compulsory home study element to the maths course, which students would be informed of at the start of the year, just like assignments. Students have not had this in schools and would consider it a normal aspect of college study.
5	anonymous	Implement it in to group activities more.

## 16. Do you need support using Dr Frost?

[More Details](#)

<span style="color: blue;">●</span> Yes	2
<span style="color: orange;">●</span> No	5



## 17. What are your support needs?

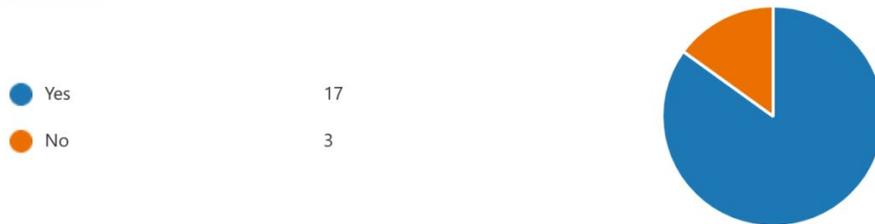
2 Responses

ID ↑	Name	Responses
1	anonymous	General usage.
2	anonymous	How to set assessments and analyse results more confidently.

## Student survey

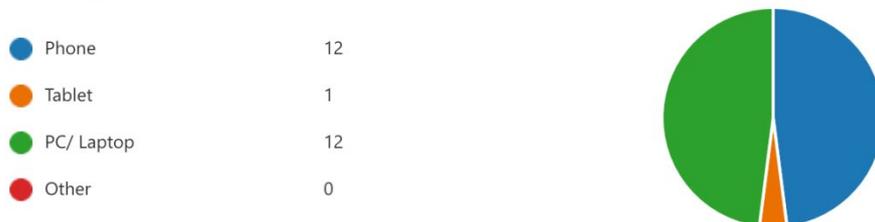
1. Have you used Dr Frost to complete any classwork, homework, or assessments?

[More Details](#)



2. How do you usually access Dr Frost? You can select more than one option

[More Details](#)



3. How easy do you find Dr Frost to access?

[More Details](#)



4. If you find it difficult to access please explain why

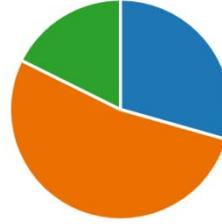
2 Responses

ID ↑	Name	Responses
1	anonymous	Because there is notifications and quite difficult to find a subject
2	anonymous	so much stuff on the screen

5. How easy do you find it to input answers on Dr Frost?

[More Details](#)

Extremely easy	5
Somewhat easy	9
Neutral	3
Somewhat not easy	0
Extremely not easy	0



6. If you have had issues inputting answers please explain why

[More Details](#)

0

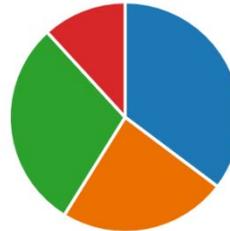
Responses

Latest Responses

7. How much time do you spend on Dr Frost per week?

[More Details](#)

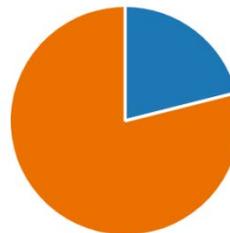
0 - 30 minutes	6
30 minutes - 1 hour	4
1 hour - 2 hours	5
More than 2 hours	2



8. Have you used Dr Frost for self study?

[More Details](#)

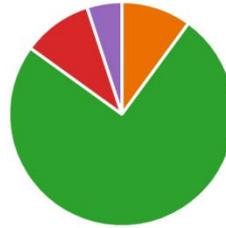
Yes	4
No	15



9. How would you rate Dr Frost for self study?

[More Details](#)

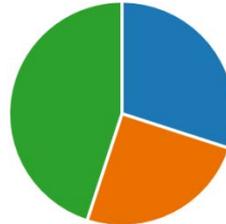
Very poor	0
Poor	2
Okay	15
Good	2
Very good	1



10. Would you consider using Dr Frost for self study or revision in the future?

[More Details](#)

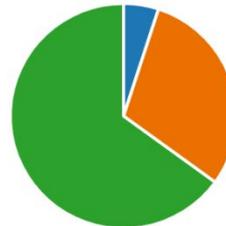
Yes	6
No	5
Maybe	9



11. If you had the choice which would you use for self study?

[More Details](#)

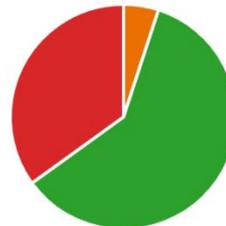
BKSB	1
Dr Frost	6
I don't know	13



12. How would you rate the feedback given by Dr Frost?

[More Details](#)

Very poor	0
poor	1
Okay	12
Good	7
Very good	0



---

13. Do you know how to use Dr Frost for self study or revision?

[More Details](#)

● Yes	9
● No	3
● I'm not sure	8

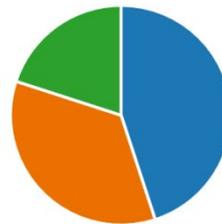


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14. Would you like more guidance on how to use Dr Frost for self study?

[More Details](#)

● Yes	9
● No	7
● Maybe	4

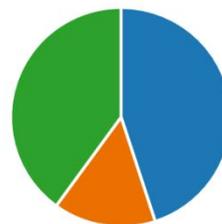


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13. Do you know how to use Dr Frost for self study or revision?

[More Details](#)

● Yes	9
● No	3
● I'm not sure	8

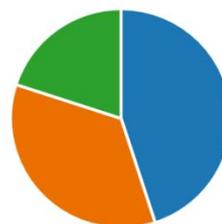


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14. Would you like more guidance on how to use Dr Frost for self study?

[More Details](#)

● Yes	9
● No	7
● Maybe	4

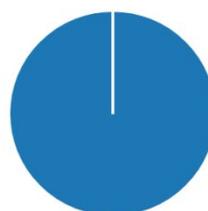


## Staff survey 2

1. Do you think we should use Dr Frost in the next academic year?

[More Details](#)

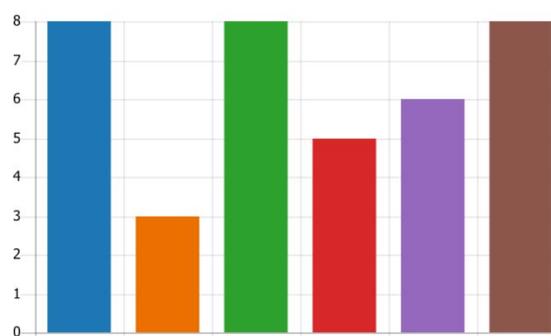
● Yes	8
● No	0
● Don't know	0



2. Assuming teaching will be face to face from September, how would you use Dr Frost with our learners? (you can choose more than one option)

[More Details](#)

● Homework	8
● Classwork	3
● To assess work at the end of a ...	8
● To do our usual 'formative' ass...	5
● For catch up	6
● To encourage self study	8



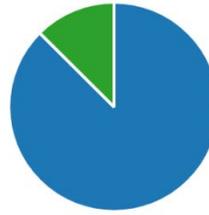
3. Any comments about implementation in the next academic year?

7 Responses

ID ↑	Name	Responses
1	anonymous	I think it will be easier to introduce to students at the start of the year as we are more familiar with it
2	anonymous	assessments( definitely unit assessments monthly? basis but also interimFA's ) would be fine if done in class giving everyone immediate feedback especially if we put some time into providing suitable papers
3	anonymous	Make it compulsory for all students, I have some students who have done very little.
4	anonymous	I think students should take responsibility for their own Dr Frost progress and be proactive (hopefully) and be allocated work to complete topics as an end of topic assessment model.
5	anonymous	It is a valuable resource for students to review topics and useful assessment tool as evidence of work and a chance to RAG work.
6	anonymous	Have a look more carefully at the topic tests that are set. The pre existing tests often go to a level on some questions that students find too difficult. This means the maximum marks they can often achieve is 6/8. Maybe create a set of own built tests for each topic

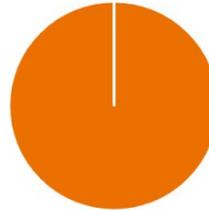
#### 4. Has using Dr Frost reduced your workload?

[More Details](#)



#### 5. Do you feel that using Dr frost has the potential to reduce your workload?

[More Details](#)



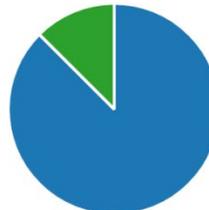
#### 6. Any comments about workload?

5 Responses

ID ↑	Name	Responses
1	anonymous	Dr Frost questions are quick to generate and set to students, then a quick glance tell you whether the student has grasped the skill
2	anonymous	It is quick to set work and get it marked and easy to give feedback though i'm not sure i used this as effectively as i could have.
3	anonymous	It really helps that it is self marking and also that we can adjust the marking too
4	anonymous	It can be easy for students to access work and reduces teacher time to chance up work.
5	anonymous	As I would aim to use it next year as additional work/homework, I think it might increase workload minimally, as currently homework is not wisely used. If we were to set homework for all students, then the use of Dr Frost would decrease this added workload.

#### 7. Do you feel Dr Frost enables you to identify gaps in knowledge more easily?

[More Details](#)



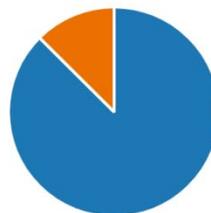
## 8. Any comments about identifying knowledge gaps?

6 Responses

ID ↑	Name	Responses
1	anonymous	The colour code system make it a quick visual guide as to the students topic gaps
2	anonymous	The more work completed the more useful and accurate the analysis.
3	anonymous	I would like to know how to do this
4	anonymous	Identification from a diagnostic tool initially is a good starting point or from topic diagnostics.
5	anonymous	Set specific tests with lots of repetitive questions all focussing on the same knowledge gap. For example a test could be created for "Solving Simultaneous Equations" by just including equations which have to be added or subtracted to eliminate a term. Another DFM test could be created with more complex questions which involve multiplying one of the equations first.
6	anonymous	It can definitely identify gaps, but I do find the system itself quite "clunky".

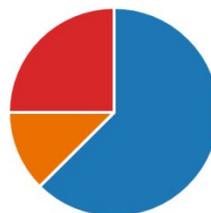
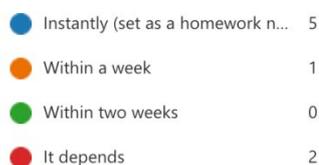
## 9. Are you able to give feedback easily using Dr Frost?

[More Details](#)



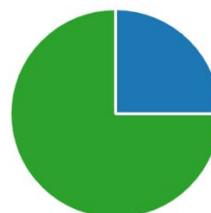
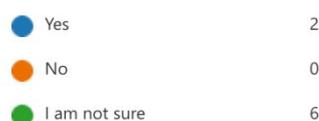
## 10. When should feedback be released to learners when completing a Dr Frost activity/assessment?

[More Details](#)



## 11. Do your learners know how to access their feedback?

[More Details](#)



## 12. Any comments on feedback?

2 Responses

ID ↑	Name	Responses
1	anonymous	Some do some dont. Is it the generic feedback from DF or personalised question feedback from tutor?
2	anonymous	How do you provide overall feedback on an assessment?

13. For completing this project as part of OTLA 7 we receive £5000 in funding to spend in the maths department. How do you think that would be best spent?

7 Responses

ID ↑	Name	Responses
1	anonymous	photocopying
2	anonymous	Wisely. ipads for use in class though there could be competition due to quantity, could they be loaned to needy/worthy students for homework ?
3	anonymous	Staff team building day and resources
4	anonymous	Resources for the department to provide the best opportunity for our students e.g. tablets, wifi access or even printing,
5	anonymous	iPad for catch up students.
6	anonymous	More equipment for students. A set of Android tablets with stylus would really benefit students in class using DFM.
7	anonymous	A bank of devices (tablets)



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**THANK YOU**

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