

Forced GCSE mathematics resits: Students' voices

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Since the introduction of forced resits in Further Education (FE) colleges, current policy-informing research and reports have been centered on employers, teachers and colleges. As a practitioner-researcher, I concentrate on those most affected by the policy, yet voiceless in the policymaking context – the students. In this paper, I will present some initial findings, gathered in 30 student interviews at three FE Colleges. Personal mathematical histories have been examined, alongside the effects that forced GCSE resits have had on the students and their lives, in the context of – but not limited to – mathematics education.

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Introduction

Prior to 2015, GCSE Mathematics was predominantly a school qualification, taken at the age of 16, with voluntary opportunities for retakes offered, mostly in the form of adult evening classes. The change in government policy in 2015 created a new classroom reality for 16+ providers, where all students aged 16-18 who did not pass their GCSE Mathematics at school are now obliged to work towards retaking the qualification at college.

Since then, several reports have been published, concentrating on the colleges, teachers and employers (see notably Creese et al. 2015; DfBIS 2016; Hayward & Homer 2016; IOE 2015a, 2015b; Robey & Jones, 2015). Note that the new Smith report was to review the feasibility of mathematics education for all until age 18. It was expected at the beginning of 2017, however we are still awaiting its publication.

Current policy-informing research and reports are centred on employers, teachers and colleges. As a practitioner-researcher passionate about teaching both students and mathematics, as well as social justice, I concentrate on those most affected by the new policy yet voiceless in the policymaking context – the students. This paper presents some initial findings, along with possible lines of enquiry, of the project I have been working on over the last two years. It consists mainly of raw data, however, this raw data is rarely seen in the policy-making context. Therefore, let me present the core of it all – the students' voices.

Methods

I have conducted 30 semi-structured student interviews for this project, looking at students' personal histories of mathematics education and their current relationship with the subject and its teaching. The students came from a variety of backgrounds, but they all had three aspects in common: firstly, they got a grade D or below in their GCSE Mathematics exam at some point in their lives; secondly, they were aged 16 to 19; and thirdly, they were studying for a vocational qualification in a large general FE college - for all of them, studying mathematics was an "add-on" to their main course.

Prior to the interviews, 700 16-19-year-old students on full-time vocational courses were asked to answer a survey comprising 27 questions. The students were not chosen in any particular way, other than forming a full cohort of mathematics GCSE learners in a large general FE college in south-west of England, with three campuses in varied locations (city, town, rural environments). The purpose of the survey was essentially to inform and shape the interviews, and in particular to begin exploring students' relationships and attitudes towards mathematics in the college. The evening cohort of 50 mature students, who were studying only GCSE mathematics at the college, was also asked to fill in the survey to help underline the issues specific to the 16-19 year old cohort. The response rate for the student survey was over 50%, far beyond what was expected, which might indicate a strong need to be listened to – and to be given a voice.

Initial findings

Teaching GCSE resits in an FE college is very different to delivering the same material in a school: firstly, the position of mathematics within a college's curriculum is peripheral, compared to the role it plays in secondary schools – and the students are very aware of that. Secondly, the discourse surrounding being in a college – and doing mathematics there – is far from simple. The students attend their main vocational course out of interest and choice (in theory at least), and are treated like young adults who choose to pursue a particular vocational path. However, this is in direct contrast with the mathematics education they are being offered, which is an obligatory qualification intended for a school context. Functional Skills come with their own baggage of issues, but this is beyond the scope of this paper. Thirdly, FE GCSE mathematics teachers come with a variety of qualifications and experience (Hayward & Homer 2016), which in turns makes GCSE resits teaching a very varied practice.

Most importantly, GCSE mathematics resits learners are older, which brings with it a degree of responsibility for their families and communities that we do not associate with school children. 27% of the students who took part in the survey had more than 10 hours of caring responsibilities every week, while 47% worked more than 10 hours a week. This, combined with the fact that mathematics does not form an integrated part of their main vocational course, partially explains students' attitudes to studying mathematics in the college. Students were asked to rate the following statement: "If I had a choice, I'd study mathematics this year" on a scale from 1 (strongly disagree) to 10 (strongly agree). 42% of the students chose "1 – strongly disagree", with over 70% preferring not to do mathematics overall. This strongly charged response invites an equally strong and snappy judgment: *teenagers don't want to do mathematics, what's new?* However, this data must be seen - and understood - in the context of the fact that only 55% of students surveyed had access to a quiet study space at home, with only 48% having space to store their books and notes. Combined with the high proportion of students in employment and with caring responsibilities, the negative attitude towards studying mathematics may be explained as a matter of sensible time management, rather than being mathematics-centred.

The perceived relevance of mathematics and a mathematics qualification was further explored in the survey. 41% of the students did not have a clear idea about their post-college future, yet 34% considered going to university as one of the possible options. As one of the participants put it:

(In the future, I want to) go to university, just feel a sense of achievement and not to feel dumb any longer.

Students were also asked about their perception of the “usefulness” of mathematics and mathematics qualifications in their lives. Somewhat surprisingly, although the distribution looked very similar, far more students thought they would need a C-grade (yellow bar) than mathematics (blue bar) in general:

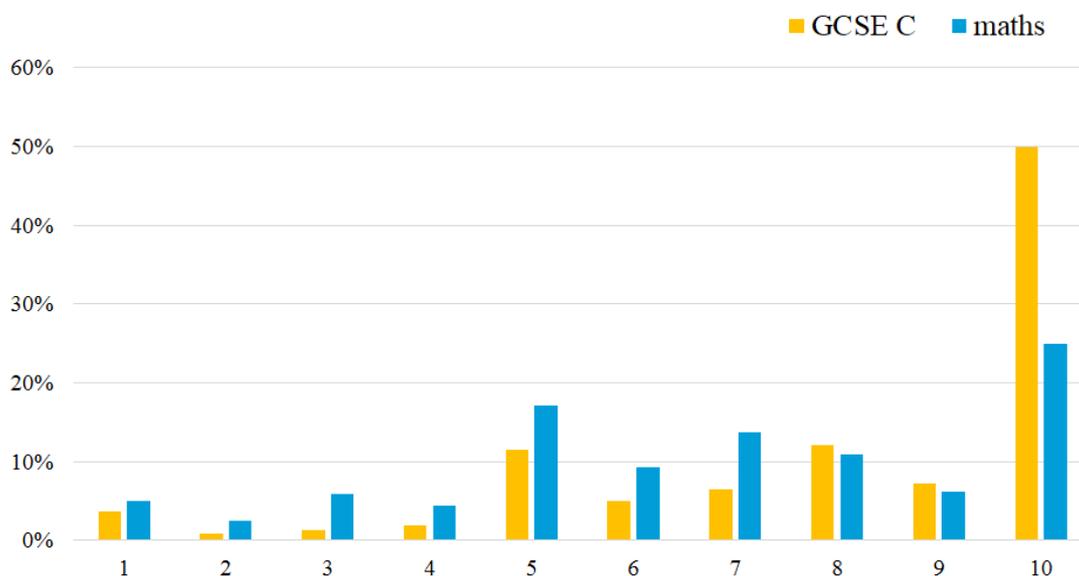


Figure 1: Students’ responses to two questions: “I will need mathematics in real life” and “I will need a C in mathematics in future”. 1 – strongly disagree, 10 – strongly agree.

Attitudes towards mathematics were further explored in one of the open questions in the survey – “When I think about mathematics, this comes to mind”:

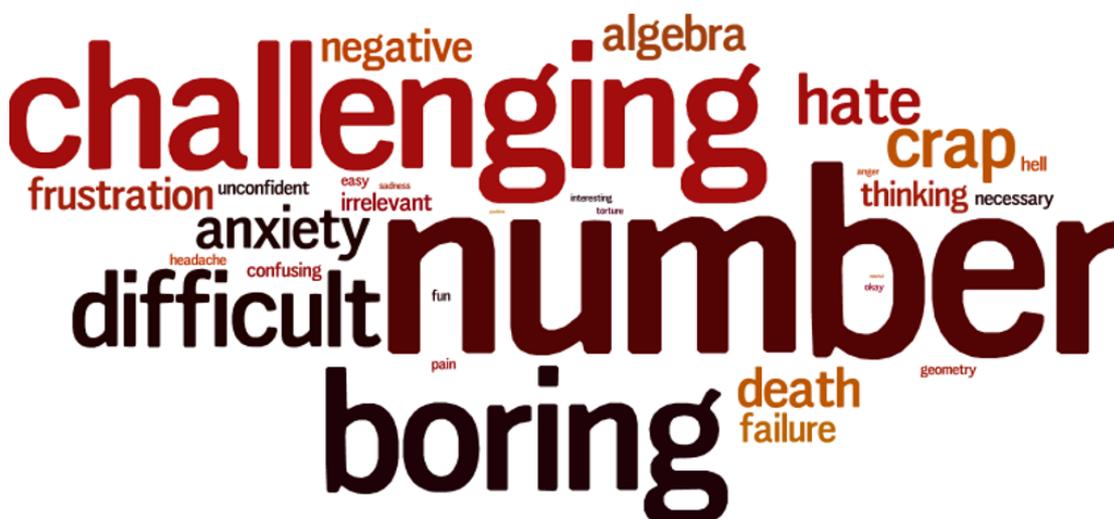


Figure 2: Students’ responses to the open question: “When I think about mathematics, this comes to mind...”. Some responses were consolidated, for example all swear words was put under an umbrella of “crap”.

The number of students who took a positive or neutral position towards the subject (including those describing mathematics as “challenging”) was higher than expected at 45%, however, it was overshadowed by those students putting “death” or “suicide” as their response (3% of students, i.e. 11 individuals). This question was followed by and

expanded on in the student interviews, when it was phrased as “When you think about maths, what comes to mind?”:

Jake: I was ace in maths in primary school. I got 6s and then went to secondary school and it all went tits up and I ended up in the bottom set at the end of year 10.

Liam: I was better than most kids in the class, but I didn't get an opportunity to answer anything because they all used to talk over me. Top set Y7, second set Y8, fourth set in Y9. It was homework, deadlines, attitude. It wasn't solely on grades, it's how you act, if you were acting like the third set, that's where they would put you.

Luke: Primary was alright, then I went to secondary and I was in the top set, and I got kicked out because I never used to do anything. I got moved to the bottom set and all my mates were in there and everything went from bad to worse. [In the top set] I got distracted easily. Some of the work was interesting, but some of it was boring, that's the trouble. In the bottom set everyone just used to mess around and sent out basically. It's just hard to get on with, it's one of these things. You're either good at it or you're not. In the later years the classes that I was in were loud and rowdy, so I didn't get much concentration.

Lucy: We had five teachers in Y11 - you're used to one staff member and then they're gone. So you had to do it again. What I don't like... is possibly working on the weaknesses, because I have all of them. It doesn't really go in. I don't really know how to make it go in.

Holly: I was a really good student in maths... I mean, my grades weren't brilliant, but I never got into trouble or anything.

Since it was made very clear to the students at the beginning of the interview that we would be talking about maths in general, not just at school or college, the frequency of the attainment grouping being mentioned was striking. For almost all my interviewees, what defined their relationship with maths in their eyes, was the set they were put in. The debate surrounding attainment setting is one of the liveliest in the mathematics education research at the moment but it is beyond the scope of this paper to engage with it sufficiently (see, for example, Mendick & Leslie, 2013). However, all the students interviewed “failed” mathematics. For all of them, the set they were put in was at the forefront of what they thought of mathematics and how they positioned themselves within in; not the grade they got in their GCSE exams, or the most recent experiences they had had in college. This seems to be in line with Boaler's (2005) notion of “psychological prisons”, however it requires further careful exploration.

The last survey question I will discuss in this paper was the one that informed the interviews the most, although it appeared not to have generated any significant data. Students were asked to rate the following statement: “Everyone can be good at maths”, with 1 representing “strongly disagree” and 10 “strongly agree”, yet the results were inconclusive. When asked about this directly during the interviews, all students' interviews mentioned the importance of being self-driven and dedicated:

Luke: Yes, anyone, if you just put your mind into it; if you don't care about it then you're not gonna get it. Listen properly, do all the work and don't give up when I can't do something straight away, but most times, 9 out of 10 I just give up, I just get annoyed with myself. I don't know why. I just do.

Lucy: Yes, I think so. Concentration, commitment, perseverance. I can be good at maths, eventually. I just need to be committed and get on with it.

Liam: Yeah, if they put their mind to it and learn about it, because everyone learns. If you learn it then you get it. But I reckon it's laziness. Because I can be quite lazy sometimes. I don't want to learn, but I can do it, I just don't want to, I choose not to.

Luke: It depends on the person, whether they have the motivation to become better, or not. I was happy with my D, I thought that was good for me. I never used to pay attention, I was so naughty, so I didn't really know what to write. Now, you just need to be sensible because otherwise it's gonna get you nowhere.

The initial reaction to these findings was positive – after all, the awareness of “what it takes” to succeed at something can only be a good thing. However, it led to a simple question: if the students know what to do to be good at maths, then why do they keep failing their maths exams? The importance of individual responsibility, pointed to by all interviewed students, may be the product of neoliberal culture, rather than a deeply held belief in individual agency. This will require further exploration, especially since factors such as gender and social class cannot and will not be ignored, as demonstrated in this last quotation from a student interview:

Interviewer: Did you ever think about going for a higher grade, like B, or A, or A*?

Jake: No, because we're boys. We only go for the bare minimum. It's a bit weird. If I put the work in. But I have no motivation to put the work in.

Further questions

Eventually, this project will lead to an examination of the dominant discourse in post-16 education policy, its underlying principles, its explicit and implicit intended outcomes, and contrast them with the actual effects this policy has on the students and their lives, in the context of – but not limited to – mathematics education. Additionally, my research will highlight the long-term consequences of setting at schools, since this study indicates that the retake students' mathematical identity cannot be examined without engaging with the “ability” grouping debate. In turn this will require an examination of the gatekeeping role of mathematics education in social (class) mobility, and a broader view of the role of social class in navigating educational systems (Ball 2003).

The richness of the data collected in the survey and during the interviews cannot be sufficiently explored in a short paper such as this and I ask you – my reader – to remember that the purpose of this paper is to share some initial findings about forced GCSE resits, since there is very little literature available that would be fully applicable to this relatively new approach. For example, Malcolm Swan's (2000) work concentrates on adult students, and Diane Dalby (2015) talks about 16-19 year old students, but studying for a different qualification.

I am a practitioner-researcher. As such, I want to start the discussion where the question of “what are we actually doing to these students?” is asked loudly and clearly. Perhaps we could borrow from another profession and put “First, do no harm” at the heart of our education policy debate.

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