Students As Researchers (STARs)- 'Enhancing classroom challenges'

Mr Shah Muhammed Wahiduzzaman
Central Foundation Girls' School
London

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Aims of the project

The main aim of this project is to explore messages from student-led research into classroom challenges and attitudes. This project on enhancing classroom challenge aims to understand our learners better and to develop our approach towards learning and teaching processes in relation to raising achievement.

Objectives:

- To discover students' views about approaches to teaching and learning designed to engage and challenge them in the core subjects
- To promote students' sense of agency through their role in the project as researchers and planners

Dimensions of the study

The study was carried out at Central Foundation Girls' School (CFGS), a voluntary-aided secondary school and sixth form college. One of the school's specialisms is Citizenship. Student voice is well-established here and we have a strong student council. Students are from different ethnic backgrounds although a majority of them are Bangladeshi Muslims. Most of the students come from poor socioeconomic backgrounds. Improving students' achievement by raising their aspiration, motivation, belief, building their confidence and self-esteem are the biggest challenges in this school.

This research took place at the Central Foundation Girls' School and Wellington Primary School. It was carried out by 12 student researchers (ages from 14 – 16). It also involved three teachers from Science, Mathematics and English in the secondary school and one teacher from the primary school. The student researchers interviewed 40 Year 7 students and 10 Year 6 students from a local primary school, Wellington School. All these students were under-achievers.

Summary of main findings

The research produced suggestions about approaches to raising achievement in the core subjects including:

identifying key strategies for producing more challenge in lessons in the core subjects, for example:

- constructive fun activities *[e.g. games, role plays, project based learning etc.];*
- more discussion time and group work;
- 'no hands up' rule (opportunities for everyone to speak);
- teachers using questions to generate ideas *[e.g. questions with 'what if…what else…how does…' etc];*
- teachers asking students to formulate questions; and
- teachers' feedback that promotes thinking.

Involving young people in research and drawing on their sense of agency encouraged their motivation and involvement in their whole educational experience as well as providing them with research skills.

Background and context

The key feature of this multi-layered project was that it involved training students as researchers (STARS). The students were taught how to collect data from other students and staff relating to raising achievement and motivating students in learning and enjoyment of the core subjects. The project was underpinned by the belief that by involving young people in research, their sense of agency, their own motivation and their involvement in the whole educational experience will be enhanced.

Becoming researchers into learning is an important part of the process of involving students in their own learning. A goal for the future is for more teachers in the school to take part in working with the students in their lessons to conduct investigations into how learning is progressing.

Teachers' views about student-led research

One of the key issues the project faced was the willingness of staff to engage in critical reflection relating to challenge in their classroom teaching. This was mitigated by asking for teachers to volunteer to take part in this project and by involving those who were enthusiastic about the possibilities for change. Another risk was staff feeling threatened by students observing their teaching. Teachers' concerns were overcome through discussion that emphasised the fact that students were looking for positive examples of practice and student engagement, rather than negative ones. Teachers observed in this research were very open and they enjoyed and valued the whole process of learning from students and vice versa.

Comments made by the teachers observed:

"I was intimidated at first; however after contemplation I was intrigued and excited to find out how students would evaluate my performance. It was refreshing to receive feedback from the students' perspective. I was impressed with their constructive feedback. They are obviously well trained, and know exactly the components of what a good lesson should look like. I enjoyed the collaborative work with the students, as well as visiting the primary school. I have learnt new effective strategies to raise girls' achievement. … I hope to see this type of project continue and develop in the years to come. I think it allows teachers to

evaluate and improve their own teaching, putting the students' needs above everything else. I would advise teachers to get involved as much as they can and try and get the most out of the students. It is a very good opportunity to liaise and get to know the students better. …"

"I had a mixed feeling about this. On the one hand I wasn't sure about students' capability of carrying out an observation as part of such a project. On the other hand I thought it would be good to see what students think and hear their opinions. I have to say I was impressed with how professionally students carried out their responsibilities. They were considerate towards those pupils who had to be interviewed and pointed out some very interesting ideas. It was clear that they were mostly interested in the project and were taking it very seriously. The whole experience was very enjoyable. The parts I enjoyed most were the feedback from the students' observations. … Talking to students and hearing their remarks has helped my own professional development a lot. I sincerely hope that this project can help find a solution (perhaps) or the reason why some pupils who move to secondary school fall behind. I hope that this project will be able to enhance classroom challenges to help raise children's achievement. …"

The findings

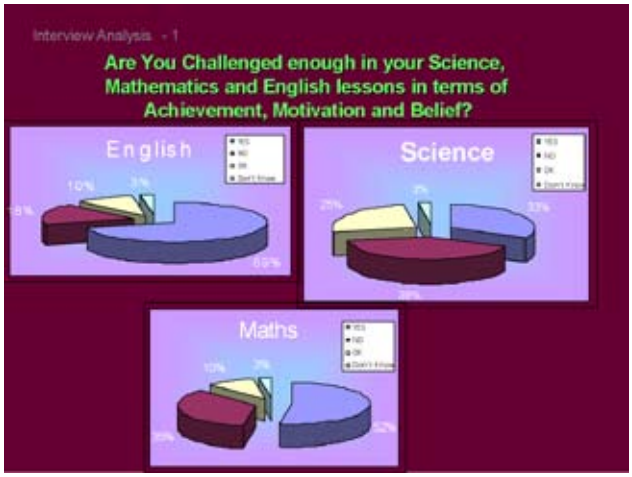
Following interviews, lesson observations, analysis and discussion with the teachers observed, STARs and teachers recommended strategies that were effective in enhancing classroom challenges in the core subjects in four areas:

- Learning activities (e.g. constructive fun activities, more group work etc)
- Questioning (e.g. questions to generate ideas, asking students to generate questions etc)
- Assessment and monitoring progress (mini plenary to review learning, mini tests, quizzes etc)
- Motivation and behaviour for learning (e.g. provide feedback that promotes thinking, realistic target setting shared between teachers and students, teachers challenging behaviour based on school rules)

STARs also developed their skills as researchers in a number of ways which are evident from the students' evaluations (a DVD containing targeted students', STARs' and teachers' evaluation and feedback was produced). STARs learned how to observe lessons and give constructive feedback, devise interview questions/ questionnaires, collect and analyse data (both quantitative and qualitative), and make recommendations based on their analysis, ensure confidentiality and disseminate findings.

The following comparative pie chart shows students' perception of classroom challenges in secondary and primary schools. Students gave their opinion in 4 words – Yes, No, Don't know and OK (their comfort zone).

Two-thirds of our Year 6 sample of students said they were challenged in Science and eight of the ten students mentioned that lessons are challenging in Mathematics but only one-third said that they were challenged in English. Interestingly Year 7 students' perception of challenge declined heavily in science and slightly in mathematics but showed a sharp rise in English. At the same time they felt less challenged in science and mathematics. At secondary level some students reported that they did not feel challenged at all. This was less true of English (18% felt not challenged,) while 35% of students felt mathematics wasn't challenging at all, and the figure for science was 40%.



Students in Year 7 mentioned various reasons for why they didn't feel that they were challenged enough, e.g. students were chatty and disruptive sometimes, no fun activities, the work wasn't interesting or was work they had done already, sometimes it was too hard, they had difficulty understanding questions, they couldn't make any links between their learning and real life etc.

Research methods

The student-researchers (STARs) used interviews and lesson observations to identify effective strategies for enhancing classroom challenge that encouraged active participation of all learners.

The research involved training students as researchers. They were shown how to design, conduct, analyse and present their findings to teachers and governors.

Interviews: [both quantitative and qualitative data]
Six students were selected to take part in a one-day training course for student-researchers. The lead teacher for the project and the primary school teacher identified 40 Year 7 (age 11-12) and 10 Year 6 students (age 9-10) who were performing below their achievement level. The 6 STARs (interviewers) designed an interview schedule. Interviews were focused on factors affecting motivation, enjoyment and perception of challenge. STARs devised a set of questions to find about students' perceptions of classroom challenge, their reflections on their experiences in learning the core subjects and their teachers' expectations of them. They shared discussion with the students about effective teaching strategies that the students believed could enhance

classroom challenge. The STARs then analysed and presented the data to the lead teachers for the core subjects.

Lesson observations:
Six students from Year 11 and Year 9, who were previously trained specifically in lesson observations and feedback, worked with the lead teacher responsible for student-led research, to identify a teacher in each of the core subjects for lesson observation. In pairs, the STARs met the teachers individually to discuss how the teacher planned to challenge Year 7 pupils in the lesson. They then observed that lesson, and met after the lesson for feed back. The 6 STARs met together to collate their findings which was fed back to the teachers observed.

The same three teachers who had been observed went with the same STARs to observe lessons in the primary school (Wellington). They observed a lesson in their own subject area. The three teachers and the STARs met together to collate their observations and recommended strategies to enhance classroom challenge. This was fed back to the primary teachers for discussion. All 12 STARs collected data from one another about the impact which taking part in the research had had on them. This was analysed and recorded (including teachers' evaluation mentioned in the *'Teacher's views about student-led research'* section above).

Conclusion

Findings on enhancing classroom challenges from both the perspectives of students and teachers were presented in a staff meeting, governors' meeting, DCSF innovation unit presentation and AMGS (Association of Maintained Girls Schools) conference. STARs also led a training session with the PGCE students at London Metropolitan University and with the trainee teachers in school this year.

A three-part written action plan produced by the students (class teachers-students actions, departmental actions and whole school actions) was also given to the teachers. Teachers are now using the strategies which were identified and suggested by the students. We hope this research will expand as the STARs are keen to investigate how teachers and departments are planning to implement their findings.

We hope that one of the effects of this project will be to encourage more teachers to take part in the process of involving students in discussion and investigation into their learning. Part of the project leader's role in is now to support and mentor those involved in this development.

Overall these research outcomes raise two questions for the teachers. One is how do we support students to build their self-esteem and confidence towards achievement? and the other one is how do we design our transition plans (moving from primary school to secondary school) in order to maintain and enhance challenge in the secondary school? The Science department has taken immediate action and is working on co-constructing Year 7 lessons with trained Year 7 students and teachers, along with teachers and pupils from primary schools. Other departments are reviewing their transition modules. In addition our *Aim Higher* coordinator in school has set up a working party to maximise opportunities for the students to experience work-related learning from the very beginning of Year 7.

Suggestions for further reading:

Michael Fielding, University of Sussex, UK and Jean Rudduck, University of Cambridge, UK. *The Transformative Potential of Student Voice: confronting the power issues* - www.leeds.ac.uk/educol/documents/00002544.doc

Macbeath,J, Demetriou,H, Rudduck,J, and Myers,K (2003) - Consulting Pupils: A toolkit for teachers . Cambridge, Pearson Publishing

McIntyre,D, Pedder,D, and Rudduck. J (2005) Pupil voice; comfortable and uncomfortable learning for teachers *Research Papers in Education* 20 (2) pp.149-168

A copy of the BPRS report (Level 2). This is also available at: http://www.teachernet.gov.uk/_module/bprs/level2/docs/Frost%20Barry.doc

Author's contact details:

Mr Shah Muhammed Wahiduzzaman
Central Foundation Girls' School
London E3 2AT
e-mail: wzaman@central.towerhamlets.sch.uk

Appendix:
All resources, PowerPoint Presentation, DVD, School Action Plans will be put on the school website http://www.central.towerhamlets.sch.uk/ (under the training school tab).

This summary was commissioned by the National Teacher Research Panel for the Teacher Research Conference 2008, which explored and celebrated teacher engagement in and with research.

All conference materials are available at www.standards.dfes.gov.uk/ntrp

This publication has been supported by the DCSF Gender Agenda.

To find out more please email: research.summaries@dcsf.gsi.gov.uk

National Teacher Research Panel
engaging teacher expertise