



EDUCATE TO ELEVATE
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Educate to Elevate 2015 Final Report 310815

Introduction

Educate to Elevate is a programme devised by the Kajans Women's Enterprise Ltd based in Aston, Birmingham B6 5NU. The programme is investigating and reporting on the impact of Supplementary Education for the advancement of learning and attainment levels of students aged 14-15 years, many from a disadvantaged background. It is specifically concentrating on GCSE Mathematics and English tuition and on raising self-esteem and confidence in order to meet their maximum potential. This E2E pilot is designed to assess, deliver and measure the impact of supplementary education on attainment levels over six months. After consultation with schools and parents the programme was configured to run for an intense six day period in the Easter holidays followed by weekly half-day tuition for six Saturdays.

Kajans secured funding from the National Lottery programme, Together in Service with minimal donations from parents to meet the cost of two well qualified and experienced subject teachers, two subject specialist class assistants, a programme coordinator, a programme administrator, an external evaluator, materials and premises. Publicity was launched on radio, direct mail, telephone and meetings with Local schools and community groups were approached and invited to send students, parents and students were also encouraged to make self-referrals. The aims of the programme as described to them are set out below.

- Develop a working partnership with mainstream educators to establish the student's current levels and predicted grades and identify areas for improvement
- Develop a Personal Learning Plan for each student with agreed targets
- Deliver extra tuition presenting different approaches to reinforcing aspects of their academic learning
- Devise alternative approaches to curriculum delivery and provide reinforcement and revision with regular parent and student feedback
- Aim to improve the GCSE results for the examinations taken in the student's mainstream educational setting.

Parents were informed that the programme is free and would initially run for one week during the Easter break. They were also informed that during the programme the students would undertake two assessments and receive forty seven hours of intensive teaching focusing on English and maths in an attempt to raise their attainment levels. It was later decided to also re-test the students at the end of the six-week weekly tuition period to compare these results with the first and second test results. Parents were kept engaged and informed of the students' progress throughout the seven week programme and were also encouraged to meet with the Programme Co-ordinator throughout the period (and on one occasion with the external evaluator) to discuss the programme and the test results. Parental comments and feedback are examined in the section of this report entitled, 'Parents'.

The offer was taken up by three schools, which provided twenty eight referrals and, in addition, we had one direct referral from a parent. Unfortunately 15 students dropped out leaving just 14 to start the programme. Eight of these were identified by the schools as students who would benefit most from the programme and six were to be tested with the others before and after the programme to act as a control group. The cohort to be taught therefore comprised eight students. Although the programme was not aimed specifically at girls, the students referred were all female. With parental consent their schools were asked to provide details of their end of KS2 SATs, their CAT scores, their projected GCSE grades using all data and their current expected results.

The data the schools had provided enabled the teaching staff and the external evaluator to determine the levels at which support and tuition was required in order to set appropriate learning goals for each student. With such small groups, it was possible to adapt teaching methods and subject content quickly to ensure all students were engaged and working at a level that was sufficiently challenging but not unattainable. Some of the comments from parents, teachers and students have been included in this report in addition to the quantitative data. (All comments are verbatim and as such, some may contain grammatical errors).

The Students

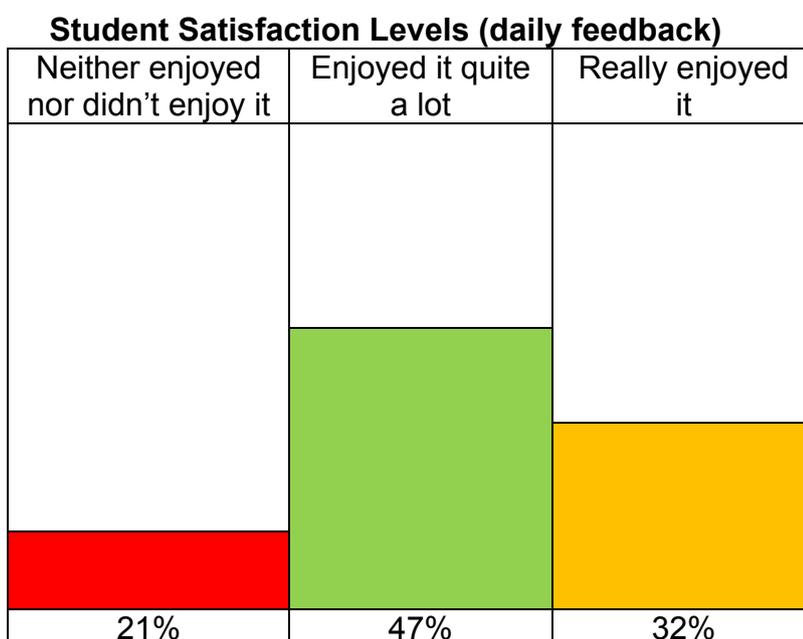
The programme is focused on students who are currently not performing at their expected levels but who could potentially do so with additional support and intense tuition. It was initially anticipated by the programme staff that the students would be functioning at around a current GCSE level D with the aim of raising them to a level C or above. However, the abilities of the students that the schools referred to the programme was very different (see below). The spread of abilities was much greater than anticipated with some students not having mastered quite basic concepts in the subjects, especially in mathematics. (This was noted from their responses in the first set of WRAT4 testing.) This could of course be part of the reason why the students were underperforming, as studies show that gaps in basic concepts frequently mean that later and higher level learning cannot be fully assimilated and applied. During the programme the students were giving immediate responses to the teachers throughout the day using both verbal and written formats and the resulting information was used formatively to ensure the teaching and learning activities responded rapidly to individual need. Any misconceptions or gaps in knowledge could therefore be quickly identified and tackled. When necessary students had one-to-one tuition to sort out any difficulties.

As can be seen from the data, some of the students were underperforming quite significantly when their current levels were compared with their projected grades based on the school held data. Two of the students were identified as having Special Educational Needs, which required extra time to complete work, small group teaching and additional support. It was considered that their needs could be met with the staff and numbers of students in the group. The chart below shows how large the discrepancy was in many instances, with many of the students significantly underperforming. It was interesting to note that these students had not sat the Cognitive Ability Tests in Year 7 and therefore the data used to calculate their projected grades was influenced heavily by their Year 6 Standard Attainment Tests results. The use of the non-verbal CAT score as a measure of potential is well recognised (e.g. as outlined in Cognitive Ability Tests Digital publication 2008) and can help to give a more realistic target grade for a student who may have scored higher in their KS2 SATs than their actual ability level, perhaps because of practice.

Table 1.

| Student No. | Projected grades from previous student data | | Current estimated grades | |
|-------------|---|-------|--------------------------|-------|
| | English | Maths | English | Maths |
| 1 (Control) | B1 | B1 | C2 | C2 |
| 2 (Control) | A2 | B3 | B3 | E2 |
| 3 | B1 | B3 | C3 | E2 |
| 4 | B3 | B3 | D2 | B3 |
| 5 (Control) | B3 | C2 | D2 | E1 |
| 6 (Control) | B3 | B3 | B3 | B1 |
| 7 | B3 | B3 | C3 | E1 |
| 8 (Control) | B1 | B3 | C3 | F1 |
| 9 (Control) | A2 | B3 | D2 | E2 |
| 10 | B3 | B3 | B3 | E2 |
| 11 | C3 | D2 | D2 | F3 |
| 12 | B3 | B3 | B3 | E1 |
| 13 | A | C | C2 | F2 |
| 14 | C | B | C | D |

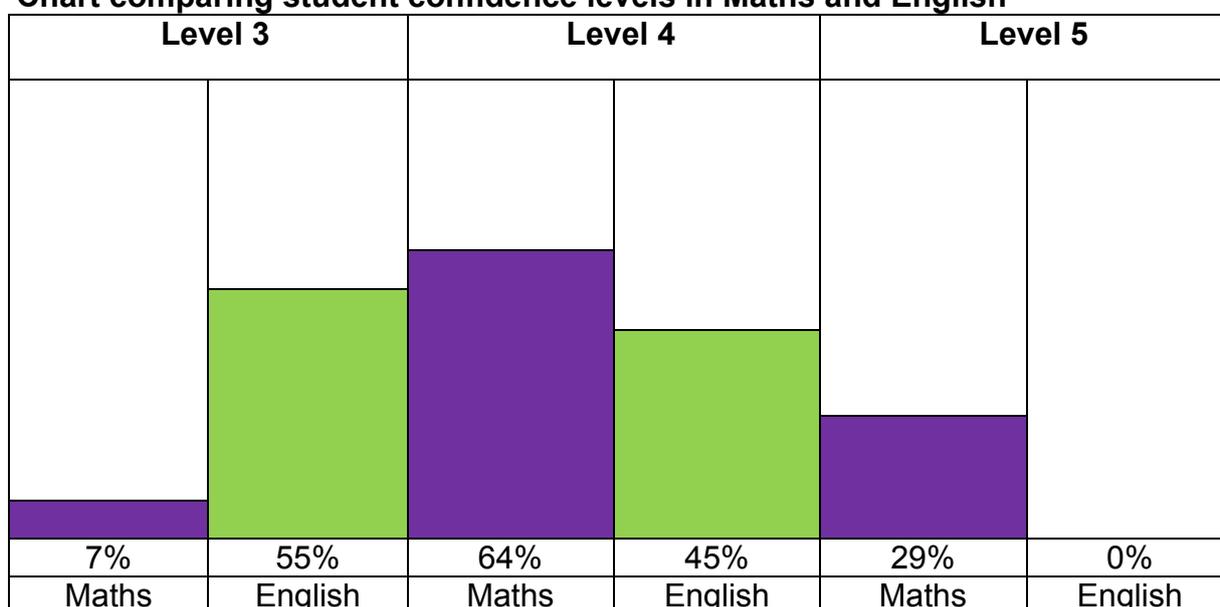
Table 3.



As can be seen from the chart a large majority of the sessions (79%) were graded as enjoyable or really enjoyable by the students. Their enjoyment became more obvious as their confidence grew, responding to very small tutor groups, occasional one-to-one tuition, fast paced and interactive lessons and a high level of communication with all the programme staff. The teaching styles used in the programme will be discussed in a later section but it was obvious from the students' comments how much they valued the attention and the opportunities to achieve and make progress that were given to them in a manner they often described as, 'Fun.' The later daily evaluation sheets with the numerical data also allowed an analysis of how confident the students felt about maths and English after the first few weeks of tuition. A scale of 1 to 5 allowed them to rate their confidence with 1 being the least and five the most confident. None of the students used the lower levels of 1 and 2 and the results for the other 3 levels are shown in a bar chart below.

Table 4.

Chart comparing student confidence levels in Maths and English



Student motivation was varied at the very start of the programme with some students being initially slightly negative about having to give up a large part of their Easter break. The initial meeting and first round of testing was on a Saturday morning with all the staff present; the external evaluator, programme co-ordinator and administrator, teachers and teaching assistants. Initial observations were made about attitudes and confidence and it quickly became apparent that some of the girls were displaying a lack of enthusiasm for the programme. Body posture was closed and shoulders down with some students actually slumped onto the tables. Others lacked the confidence to join in group discussions about their aspirations for the future and could barely produce a few words. In the handwriting speed test where a set of sentences had to be completed there was further evidence of low self-esteem and negativity. Maths seemed to be a focus for quite a lot of negative statements and some examples are given below.

- Maths is hard
- Maths is stressful

By the end of the seven week programme these student comments had changed.

- Maths is getting easier because of this (the programme)
- Maths is starting to get better for me.

During the seven week period the external evaluator was able to observe changes in the students on the three occasions that she met them to oversee the administration of the WRAT tests. The growth in confidence and change in attitude was quite marked with the students proudly talking of their achievements at the end of the programme, sitting in more confident poses and making good eye contact. They all could articulate their hopes for the future and it was clear the group were now positive and energetic. Two of the students in particular showed perhaps the most dramatic change over the course of the seven week programme. Comments from the students' schools and their parents again describe not just their improvement in subject performance at school but also in their attitude and behaviour.

The rise in confidence and motivation that was seen in the students and also reported by the staff, their home schools and their parents was not so evident in the self-esteem tests the students completed each of the three times they were tested by the external evaluator (see page16). These scores saw some students remain the same or, indeed, in some cases go backwards. In this instance the ten statements that make up the Rosenberg Self Esteem Scale were graded online by the students in silence and there were indications that some students did not understand the statements or, in at least one case, could not read them accurately. The Rosenberg Scale was originally developed for use with adolescents but it is a generalised test and not related specifically to self-esteem and motivation with regards to learning. It is however noted that many of the students needed more support than merely having access to extra teaching and learning sessions and in some cases, whole families were involved in working together on specific issues. This is covered in more detail in the 'Parents' section of this report.

Observations from the teaching staff and their assistants during the programme confirm that many of the students were quite insecure and withdrawn during the initial stages but grew in confidence as the programme went along. Some of the comments are below;

- Worried about spelling
- Does not like to read out loud
- Shy, initially a slightly awkward manner
- Quietly reserved.

However, these observations changed as the programme progressed and some later comments from the teachers' notes indicate this.

- (Student name) has more confidence
- Enjoyed the one to one support
- (Student name) is getting better
- Gained confidence in maths.

In addition to the changes in attitude and confidence seen in the students taking part in the programme the main improvement was in their subject performance. This could be seen by their programme teachers but for this programme to be judged a success, these improvements needed to be seen back in their home school. It is too early to examine the school predicted grades for 2016, however four of the students reported that they had been moved up a set in maths at school and they were very pleased by this, as were their parents. The projected grades will be collected in 2016 so the external evaluator can make a comparable chart to the one on pages 2 and 3. We will also be recording any comments from the home school teachers shared with us by parents from the students' school reports.

Subject Content and Delivery

The timetable for the initial week of tuition is shown below. This was altered for the six half day sessions and in response to parent and pupil feedback. (More details about these changes can be found in the section of this report entitled, 'Parents'). The students were provided with meals and hot and cold drinks and there was no charge to them for use of equipment or materials. The teaching sessions were held in the rooms at the Albert Hall, Aston, Birmingham, which is a large, secure building that has been previously used as a teaching space. Some technology was available though in the main the teachers used exercise books and large and small whiteboards for the teaching and learning activities. Several educational games were invented and used (detailed below) but again these did not require any specialist equipment. It is important that the students are able to hand write fairly quickly and accurately as this is how they will be assessed during the GCSE examinations. None of the students showed a particular difficulty with writing at speed as shown by the results of the hand writing speed test that was carried out (see page 18) which indicated they were all within the normal range.

Table 5.

| EDUCATE TO ELEVATE - TIMETABLE - W/C: 4TH APRIL 2015 | | | | | | | | |
|--|----------|-------------|-------------------------|-------------|-------------|-------------------------|-------------|-------------|
| | 09:00 | 09:05-10:00 | 10:00-11:00 | 11:00-11:15 | 11:15-12:15 | 12:15-13:15 | 13:15-13:45 | 13:45-15:00 |
| SATURDAY 4TH | | | | | | REGISTER AND ASSESSMENT | | |
| TUESDAY 7TH | REGISTER | MATHS | MATHS | BREAK | ENGLISH | ENGLISH | LUNCH | MATHS |
| WEDNESDAY 8TH | REGISTER | ENGLISH | ENGLISH | BREAK | MATHS | MATHS | LUNCH | ENGLISH |
| THURSDAY 9TH | REGISTER | MATHS | MATHS | BREAK | ENGLISH | ENGLISH | LUNCH | MATHS |
| FRIDAY 10TH | REGISTER | ENGLISH | ENGLISH | BREAK | MATHS | MATHS | LUNCH | ENGLISH |
| SATURDAY 11TH | | | REGISTER AND ASSESSMENT | | | | | |

There was an initial test session at the beginning of the first week where the students undertook a series of tests (outlined in the section 'The Tests'), which were administered twice more; at the end of the first week and at the end of the programme, in the same order by the same people. The first round of test results for each student were analysed and from their responses the external evaluator was able to provide an overview of the strengths and weaknesses indicated in the written answers for both subject areas. These were produced the day after the tests and so were available to support the planning and delivery of appropriately levelled teaching. This will be examined more closely in the next section.

During the first week of tuition the teachers were able to assess and respond to specific areas of weakness in individual students. Some lack of understanding of quite basic topics (e.g. multiplication and long division in maths) seemed to be common to quite a lot of the students and so whole group work could be used when these were taught. This was however done in a way that ensured no student was left behind and a system of checking frequently that students were on track was implemented. This involved the use of small whiteboards, which the students were asked to write or draw on to demonstrate their understanding of the topic being taught. The very small numbers in each group and the high staff to student ratio also helped to ensure all students were engaged with appropriate learning challenges that tackled the areas where they had previously been failing and provided sufficient challenge to keep them motivated and focused. The largest teaching group was all nine students together with two members of staff with them for most of the time.

Smaller groups were also common especially in the first week of intensive tuition when two teaching staff and two teaching assistants were available for the nine students. Where real difficulty with understanding became apparent, the students were offered one-to-one intensive tuition, which would tackle the individual problems they had with certain concepts and topics. The students responded to this very positively.

Teachers worked hard to provide learning experiences for the students that were interactive and fast paced. A variety of multi-sensory teaching and learning styles and activities were employed including;

- Team competitions used to re-inforce learning
- Treasure hunts for learning by discovery
- Demonstration to peers i.e. students taking the role of teacher
- Group discussion
- Displays to act as visual aids
- Relay races sharing and passing on information
- Checking and pairing games.

This ensured everyone was engaged and that a strong team spirit was developed. This was also enhanced by the group discussions and question and answer sessions held at the start of each day which are outlined below. Although most of the students were from the same school, they were not in any friendship groups before the programme but this has changed and there is a strong ethos of teamwork and support for each other, which they respond well to. Staff are very open with the students about their real desire to help them overcome any weaknesses in their subject knowledge and understanding and are really passionate about improving the students' outcomes and self-confidence. At the end of the first week one student remarked in the end of day assessment,

'It was so sweet, hearing how our teachers thought we do, they honestly have the best intentions for us. Thank you, for believing in me'.

From the outset the students were encouraged to talk as a group about any issues that were affecting their learning and their ambitions for the future. In the first instance prompt cards were used and the student had to complete the sentence on the card. Initially some students found this extremely difficult and could barely articulate two or three words but with encouragement and an openness on behalf of the adults to discuss their own experiences and answer questions, the students gradually gained confidence. This discussion session became an important part of the programme and was held daily before any subject teaching to ensure any news was discussed and the students were settled, calm and in a positive frame of mind before tackling their learning for the day. Other group meetings were held to celebrate achievement and landmarks throughout the programme and the students were given refreshments during these periods to help make them feel more included and valued. This approach has similarities to the well tried and tested Nurture Group approach which has been used successfully to help students in both primary and secondary schools to develop their confidence and ability to interact with others. It can also help to accelerate learning and age appropriate behaviour with adults modelling responses and actions.

As mentioned previously the students became more specific in their feedback as the programme developed, showing they were reflecting on their progress and also the things they needed to consolidate. Comments on what they had enjoyed in English from the day included;

- Creative writing smaller groups
- Learning about syntax
- We improved our paragraphs together
- I enjoyed looking at one of Shakespeare's writing and picking out words to describe Sycorax
- Finalising my description of the theme park.

Comments about what the students felt most enjoyable in Maths included;

- Participating in questions
- That we all learn different topics
- I enjoyed learning lots of new things in maths
- The activities
- That in the lesson we work together in little groups.

The teaching and learning rated by the students as the most useful included;

- Using descriptive writing
- Writing and improving grammar
- Learning new words
- Describing a character
- Pythagoras
- Frequency graphs
- Ratio and median, mean and mode
- Factorising, expanding indices
- BODMAS
- Everything.

Using past GCSE papers was a technique that helped the students to gain confidence that their learning had real application and helped to alleviate the fear of being tested to GCSE level rather than just being assessed internally by the programme teachers. The teachers went through the question papers with the group, talking them through the questions, encouraging and prompting them to try to answer and finding out where there were still areas that needed consolidation. This method of teaching and learning was very well received by the students and comments about what was most useful during these sessions showed this.

- Doing different questions to help me with my exams
- Working through past papers and working together
- Going through questions on a paper
- Working through question papers.

In addition to working through examination papers as a group, the teachers gave specific questions to the students to complete under examination conditions. A sample of the grades and comments is shown in the chart below together with a comparison of their projected grade from the school before commencement of the programme. The task was a GCSE Creative Writing question. Student 4 was underperforming by 2 GCSE levels in English at the start of the programme and it was her target area for improvement.

| Student number | Teacher comment | Home school projected grade | Programme teacher grade |
|----------------|--|-----------------------------|-------------------------|
| 4 | A sustained written response. Used figurative language effectively. Needs to work on spelling. | D | C |
| 12 | An imaginative and accurate response. | B | B |
| 1 | Accurate writing but account lacked descriptive devices. | C | C |

Teachers wrote reports to parents at the end of the first week of the programme and again after the six week programme. These were all positive about the progress the students had made and gave further re-enforcement of the positive attitudes to learning that the students have developed. One example from the Maths teacher written after just one week of tuition is below.

'Initially (student name) was a shy and reluctant mathematics student. However, with careful support and deserved praise we saw a remarkable change. (Student name) has grown in stature and confidence. (Student name) demonstrated her learning during question and answer sessions. She volunteered to teach part of the topics to the rest of the class for which she received a round of applause. It has been a pleasure to teach (student name) and see her grow in confidence. Keep up the good work (student name), you know you can.'

Parents

Parents have been overwhelmingly positive about the effect of the programme and this attitude has grown stronger as the weeks have gone on. Some of the comments from the questionnaires completed by the parents after just the first week are below. The complete chart with all responses is in Appendix 2. The first question the parents were asked to answer was, 'What aspects of the programme do you think were most useful for your child?'

- Smaller classes has really helped. Friendly staff and very helpful.
- (Student name) clearly benefited from the 1-2-1 tuition & this was proven in a second math's test where her results went from 32/52 to 52/56.
- She has gained so much in confidence, especially during her exams.
- Understanding the work more clearly. Learning new topics. Helping her revise.
- Helping to read more. Child enjoyed maths and found it helped to clarify maths issues unsure of at school.

The second question to parents was, 'Have you seen any differences in your child's attitude to learning over the week?'

- YES. She commented that she enjoyed attending and grasping areas previously unknown to her.
- Yes – more confident.
- This is the happiest my daughter has felt about learning in a long time. She has always wanted to learn, but she seems more relaxed about learning.
- Her attitude to learning has certainly improved and she is keen to do her homework and revise what she has learnt. Also she has enjoyed learning from a teacher who is patient and jovial which has added to her learning experience.
- Has completed the homework given without me having to ask her if she has any.
- Yes, doing more study. No comes willingly to classes on Saturdays and sits to study at home without being pushed.

Only one parent made a comment that was slightly less positive. This was in terms of the student's feelings about her ability in English and that she felt she did not need to, 'be there for English'. Listening to this and to other parents' comments, the sessions for the following 6 weeks were shortened to half a day and the student in question did concentrate more on Maths. When asked the question, 'Are there any things you feel we can improve in the programme?' the same parent said 'I did feel it was a bit unfair that she lost so much of her Easter holidays, whilst I do appreciate all the help & support it hasn't left much time for revision as she is still going into school this week whilst she remains on leave.' This could perhaps be addressed by having the programme running during a different school holiday.

Other parents were rather more positive with comments such as;

- Nothing am happy with what I have seen.
- Only to bring this programme to more schools so other children like my daughter can benefit.
- No. Appears to work well as it is.

One parent also made the comment that parents could be brought in to explain more to them what the programme was about as they felt they did not know much about it and this is something that will be addressed if the programme is run again.

The final question to parents was to describe the Educate to Elevate programme in a sentence and a selection are below.

- Enabling and Empowering to girls who have all but given up on themselves.
- An excellent opportunity to develop and support individuals in areas that have been recognized as requiring assistance whilst also building confidence.
- Brilliant the programme underpins the Maths and English my daughter is currently doing in school. It is an extremely rare opportunity to get quality tutoring for a teenager at no cost at such a crucial time in there lives. I am very grateful.
- I would describe the programme as strategic hands-on learning procedure that focuses on individual learning style in order to get a result.
- It's given my daughter the kick start she needs to work harder. Encouraging to assist study.

Right from the outset it was clear that family expectations, habits and outlook were a crucial factor in altering the students' attitudes and motivation. To this end, the Programme Co-ordinator, who is well known and respected by the local community, worked with whole families when there was a need and was quite frank in tackling underlying issues straight on. Perhaps the most extreme example of this is when as the staff felt one student's ability to learn and her self-confidence generally was being adversely affected by being overweight. As a result it was decided to speak to the whole family about their attitude to food, their cooking habits, what the student was eating and the resulting weight problems. A second example was working with the parents of a student who felt she was already doing well at English. These parents were motivated to aim for an 'A' grade for their daughter rather than the 'C' grade she was currently forecast by her home school and as a result we saw more effort from the student and increased support from the parents. After an out of hours meeting with parents a number of culturally specific age appropriate reading topics/books and appropriate authors were introduced to parents and child.

The parents started to form a very cohesive group as the programme went on. They also started to challenge the students' home schoolteachers and leaders as they began to see what was happening to their daughters' attitudes and abilities to succeed. At a final meeting after the full programme there was 100% parental attendance and a very real sense of purpose with regards to getting the home schools to work with the Educate to Elevate programme more closely. This was particularly focused around the lack of responses obtained from the home schoolteachers when the external evaluator requested information about any improvements they had seen in the students' performance and attitude. Parents took up the challenge to help obtain home school feedback with great enthusiasm, though unfortunately there was only one teacher response. This may in part have been down to the timing of the request, which came in June when school staffs are starting to look ahead to the holidays and the start of a new term.

Parents continued to comment on the benefits of the programme and the changes they had seen in their children throughout the seven weeks and have a strong desire for the programme to continue. As mentioned previously, four of the students have already been moved to a higher teaching set for mathematics and it is hoped that this progress will continue for all the students when they move into their final year. Ideally the programme would be run right up to the GCSE examination time and then final results compared with home school projected grades recorded at the start of the programme in the chart on page 3. An example of a parental comment left as a telephone message is below;

‘(Student name) is so excited she got a D in maths. She has never had a D in her life (in maths that is), she normally gets usually 3 or 4 out of a hundred. She did the higher paperand she got 28 which was a D and we are ecstatic.’

The student’s previous home school estimated grade from seven weeks before was an ‘F’.

The Tests

The external evaluator decided to use the WRAT4 battery of tests to determine some initial baseline and post-programme levels of performance for each student. The WRAT4 is a norm-referenced test that measures the basic academic skills of word reading, sentence comprehension, spelling, and mathematical computation. It was standardised on a representative national sample of over 3,000 individuals ranging in age from 5 - 94 years. The normative sample was selected according to a stratified national sampling procedure with proportionate allocation controlled for age, gender, ethnicity, geographic region, and parental/obtained education as an index of socioeconomic status. Alternate forms, designated the Blue Form and the Green Form, were developed and equated during standardisation by use of a common-person research design. The WRAT4 includes the following four subtests;

- **Word Reading** measures letter and word decoding through letter identification and word recognition
- **Sentence Comprehension** measures an individual's ability to gain meaning from words and to comprehend ideas and information contained in sentences through the use of a modified cloze technique
- **Spelling** measures an individual's ability to encode sounds into written form through the use of a dictated spelling format containing both letters and words
- **Mathematical Computation** measures an individual's ability to perform basic mathematics computations through counting, identifying numbers, solving simple oral problems, and calculating written mathematics problems.

This test was selected because it has two forms, green and blue, which can be used to test progress over a short space of time. As the time between the two assessments was only one week, it seemed to be fit for purpose. The students were also tested for their word writing speed using the Sentence Completion Test by Robert Hedderly and their self-esteem/attitude by using an online version of Rosenberg self-esteem scale. At the end of the six weeks of morning sessions the students were tested again using the blue version of the WRAT4.

The WRAT spelling and mathematics test together with the Hedderly Sentence Completion Test were completed with all the students in a group, spaced so they could not see each other's booklets. The word reading and sentence completion tests were done individually with all staff administering these having been trained to do so by the external evaluator. The online self-esteem test was completed by each student on an individual computer. Exactly the same arrangements were repeated the second and third times with the exception of one student who could not attend the scheduled session and who sat the tests an hour earlier with the external evaluator. For the first test, three of the six control group students did not attend. On the second test, only one of the original control group attended and she had also attended the programme in the interim. To compare results with the control group properly, the home schools will have to provide further information about the control group's performance and attitude in English and Maths so that a comparison of their progress and motivation can be made. This will be requested in the new academic year as the schools are currently on holiday. For the purpose of this programme, raw scores were used to compare individual performance. The totals for each student in each of the three tests are shown in the chart below. (Larger version in Appendix 3)

| Student number | Word reading | | | Sent. Comp. | | | Spelling | | | Maths | | | Writing speed | | | Self esteem | | |
|----------------|--------------|----|----|-------------|----|----|----------|----|----|-------|----|----|---------------|-----|-----|-------------|----|----|
| | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| WRAT4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| 5 | 36 | Ab | Ab | 38 | Ab | Ab | 19 | Ab | Ab | 18 | Ab | Ab | 134 | Ab | Ab | 12 | Ab | Ab |
| 1 | 36 | 35 | 50 | 34 | 40 | 48 | 22 | 19 | 25 | 21 | 18 | 21 | 163 | 200 | 166 | 19 | 20 | 22 |
| 6 | 50 | Ab | Ab | 39 | Ab | Ab | 23 | Ab | Ab | 15 | Ab | Ab | 216 | Ab | Ab | 11 | Ab | Ab |
| 12 | 40 | 38 | 50 | 38 | 41 | 50 | 27 | 29 | 28 | 24 | 27 | 23 | 146 | 148 | 210 | 10 | 13 | 12 |
| 4 | 35 | 41 | 44 | 34 | 45 | 42 | 22 | 23 | 22 | 20 | 23 | 26 | 168 | 138 | 184 | 14 | 6 | 6 |
| 3 | 44 | 50 | 51 | 26 | 35 | 32 | 24 | 27 | 28 | 22 | 22 | 22 | 175 | 118 | 146 | 13 | 19 | 14 |
| 9 | 36 | 38 | 39 | 35 | 36 | 35 | 20 | 26 | 31 | 16 | 18 | 16 | 149 | 172 | 202 | 11 | 18 | 18 |
| 10 | 43 | 37 | 43 | 40 | 40 | 39 | 27 | 27 | 29 | 14 | 21 | 16 | 143 | 133 | 157 | 15 | 17 | 14 |
| 11 | 27 | 19 | 27 | 14 | 20 | 29 | 15 | 18 | 17 | 12 | 15 | 17 | 172 | 133 | 200 | 8 | 6 | 10 |
| 14 | 33 | 41 | 43 | 38 | 39 | 43 | 31 | 31 | 31 | 26 | 23 | 28 | 163 | 137 | 207 | 15 | 14 | 16 |
| 13 | 34 | 38 | 52 | 24 | 29 | 33 | 19 | 24 | 30 | 18 | 16 | 23 | 168 | 168 | 200 | 23 | 27 | 25 |

| Key to colours | ←Improved | ←Improved | ←Improved | ←Remained the same | ←Remained the same | ←Scored less |
|---------------------------|-------------|-----------|---------------|--------------------|--------------------|----------------------------|
| Totals per group T1 to T2 | 14/54 - 26% | ←Improved | 20/54 - 37% | ←Remained the same | 4/54 - 7.5% | ←Scored less 16/54 - 29.5% |
| Totals per group T2 to T3 | 20/54 - 37% | ←Improved | 16/54 - 29.5% | ←Remained the same | 4/54 - 7.5% | ←Scored less 14/54 - 26% |
| Per subject T2 to T3 | Eng 4 Ma 2 | ←Improved | Eng 3 Ma 3 | ←Remained the same | Eng 0 Ma 1 | ←Scored less Eng 2 Ma 3 |

T1 – first test, T2 – second test after one week, T3 – third test after seven weeks

Student performance in their target subject area from T1 to T3

| Student number | Target subject | Achieved increase in points |
|----------------|----------------|------------------------------|
| 1 | Maths | Remained the same |
| 3 | Maths | Remained the same |
| 4 | English | Increased by 6 points (av.)* |
| 9 | Maths | Remained the same |
| 10 | Maths | Increased by 2 points |
| 11 | Maths | Increased by 7 points |
| 12 | Maths | Increased by 5 points |
| 13 | Maths | Increased by 5 points |
| 14 | Maths | Increased by 2 points |

* Average of 3 tests taken so that comparison can be made with Maths

As can be seen the programme has not only improved the students subject ability but in two thirds of the cohort their skills as tested by the WRAT4 have improved by up to seven points. Although a third of the students have remained the same in their target subject when measured by the WRAT4, this has not been observed by the programme teachers, the parents or the students themselves. This can be seen from the positive comments in the parental feedback and also in the teachers' reports for the students as well as a gradual improvement in their marks throughout the programme. One reason for this discrepancy could be that the WRAT4 tests basic academic skills whereas the students have been taught and been practising topics that relate very specifically to the GCSE syllabus. The new projected grades from the home school will be examined when they come through as these will be further proof of improvement. However, when the English scores for the same 3 students are examined, it is apparent that apart from Student 4, whose spelling score has remained the same, there has been quite significant improvement for all three of the students in English using this test (T1 = test 1 etc.).

| Student number | Word reading | | | Sentence comprehension | | | Spelling | | |
|----------------|--------------|----|----|------------------------|----|----|----------|----|----|
| | T1 | T2 | T3 | T1 | T2 | T3 | T1 | T2 | T3 |
| 1 | 36 | 35 | 50 | 34 | 40 | 48 | 22 | 19 | 25 |
| 3 | 44 | 50 | 51 | 26 | 35 | 32 | 44 | 50 | 51 |
| 4 | 35 | 41 | 44 | 34 | 45 | 42 | 22 | 23 | 22 |

As previously mentioned, the Rosenberg Self Esteem Scale which the students completed online by themselves and in silence was felt to be not wholly appropriate for the following reasons;

- The statements are generalised and not specifically about learning
- The reading age was a little too high for some students to fully understand the actual statements
- The method of administration was rather impersonal
- They were unfamiliar with the laptops being used.

As can be seen from the chart below there were some obvious improvements but some of the students who were described by the staff as very much improved in confidence did not show this in their scores.

| Student number | Writing speed | | | Self esteem | | |
|----------------|---------------|-----|-----|-------------|----|----|
| | T1 | T2 | T3 | T1 | T2 | T3 |
| 1 | 163 | 200 | 166 | 19 | 20 | 22 |
| 3 | 175 | 118 | 146 | 13 | 19 | 14 |
| 4 | 168 | 138 | 184 | 14 | 6 | 6 |
| 9 | 149 | 172 | 202 | 11 | 18 | 18 |
| 10 | 143 | 133 | 157 | 15 | 17 | 14 |
| 11 | 172 | 133 | 200 | 8 | 6 | 10 |
| 12 | 146 | 148 | 210 | 10 | 13 | 12 |
| 13 | 168 | 168 | 200 | 23 | 27 | 25 |
| 14 | 163 | 137 | 207 | 15 | 14 | 16 |

The scale is scored from 0 to 30. A score between 15 and 25 is considered within normal range and scores below 15 suggest low self-esteem. Student 4 has obviously obtained a very low in the second and third tests although parents and staff feel she has gained in confidence. Factors affecting self-esteem in teenagers can be very varied but it will be worth checking on this at a later date when staff come into contact with the students again. To put this into context for the programme though, the teacher's report for this same student is below.

'(Student name) has demonstrated huge enthusiasm for mathematics, throughout this week. She has demonstrated real progress during this week by answering questions set in class and in homework. It has been a pleasure to teach (student name).

When asked about changes in the students, the parent's comment for Student 4 also says, 'Yes – more confident'.

With regards to the handwriting speed test, the average speed for students this age is 163 words per minute so if we apply this to the T3 results, all but one student (Student 3) has achieved this and this was not the student identified as having Special Educational Needs and needing more time as a consequence. However, Student 3 would not qualify for extra time in an examination as the score to qualify has to be under 122 and at 146, this is obviously too high. Taken with the fact that the student scored 175 in the first handwriting test, there appears to be no issue with writing speed for any of the students.

Conclusion

The, 'Educate to Elevate' (e2e) Programme can be seen to be an effective way of raising the achievement, motivation and self-esteem of a group of students identified as not currently achieving their potential in their core GCSE subjects of English and mathematics. In what is a relatively short space of time, and with no expensive facilities, competent teachers can work with these students to tackle the underlying academic problems causing their under-achievement and also teach new concepts that will, hopefully, impact on their future grade levels in their GCSE examinations. If Student 13 (the one whose mother said she had just achieved a 'D' in maths for the first time) is representative of all the students, then this seems likely to happen.

The second and just as important factor has been the change in the students' attitudes, motivation and self-confidence, which will hopefully impact on all of their school subjects and their ambitions for the future. The students have seen themselves as achievers and able students who can work individually, or as part of a team, to get results. They have developed a new pride in themselves because of their experience and this will hopefully impact on their future success. As one parent said about the programme in the questionnaire,

'Enabling and Empowering to girls who have all but given up on themselves'.

If the programme is repeated, from an assessment point of view the Rosenberg Self-esteem Scale would be replaced by another more accessible test to measure self-confidence. Additionally, although the WRAT4 has two tests that are supposed to be standardised, there was quite a lot of feeling amongst the staff that the green version used in the second test was more difficult, so perhaps it would be better to keep to one form of the test all the way through.

The other important learning point from this programme is that the participating schools need to be totally committed to supporting the programme from management level right through to classroom teacher. We would go as far as recommending that a formal contract is drawn up outlining what each party will provide and detailing the exact information and support required from the schools. This will include such things as identifying the control group and ensuring they attend the testing sessions and providing a short subject teacher report (for which there is a proforma) to say how the programme has impacted on the students back in their home schools.

Everyone who has participated in the programme has thoroughly enjoyed the experience and there is hope to carry on the tuition, into the future and up until the students sit their examinations in May 2016, if the funding investment can be raised by Kajans Women's Enterprise Ltd.

Appendix 1

Student Feedback Form and Data Analysis

Daily Student Feedback

Name

How much did you enjoy today?

(Please tick the box to the right of the statement you most agree with)

| | | | | | | | | | |
|-------------------------|--------------------------|-----------------------|--------------------------|------------------------------------|--------------------------|------------------------|--------------------------|-------------------|--------------------------|
| Did not enjoy it at all | <input type="checkbox"/> | Did not enjoy it much | <input type="checkbox"/> | Neither enjoyed or didn't enjoy it | <input type="checkbox"/> | Enjoyed it quite a lot | <input type="checkbox"/> | Really enjoyed it | <input type="checkbox"/> |
|-------------------------|--------------------------|-----------------------|--------------------------|------------------------------------|--------------------------|------------------------|--------------------------|-------------------|--------------------------|

What did you particularly enjoy?

What did you least enjoy?

How can this be improved?

What topics from your lessons today have been most helpful?

On a scale of 1 to 5, with 5 being the highest level, circle the number that shows how positive you feel about –

| | | | | | |
|---------|---|---|---|---|---|
| Maths | 1 | 2 | 3 | 4 | 5 |
| English | 1 | 2 | 3 | 4 | 5 |

Results from response sample below -

Positive comments (Q2)
(Student number precedes comment)

English

- 1 Creative writing smaller groups
- 1 Learning about syntax
- 3 We improved our paragraphs together
- 3 I enjoyed looking at one of Shakespeare's writing and picking out words to describe Sycorax
- 4 Describing the character and listening to the story of Sycorax
- 12 Finalising my description of the theme park
- 12 Learning about Sycorax
- 14 I enjoyed the play because it was interesting

Maths

- 12 That Sir explained everything fully
- 13 Participating in questions
- 11 That we all learn different topics
- 9 I enjoyed learning lots of new things in maths
- 3 Doing different questions to help me with my exams
- 3 Working through past papers and working together
- 4 Going through questions on a paper
- 4 Working through question papers
- 14 The activities
- 11 That in the lesson we work together in little groups

Negative comments (Q3)

One about English from a student who wanted to just study Maths, one about having mistakes explained, two about lack of equipment in one lesson and two about the heating.

Things to improve (Q4)

Things to improve were mainly about equipment, layout of tables and the heating levels. Some comments were more reflective e.g. to find out more about syntax, read more plays, look at more unseen poetry and plays and some were more practical e.g. to use test papers for real practice and to repeat the Maths session every week.

Most useful (Q5)

English

- 1 Using descriptive writing
- 1 Writing and improving grammar
- 3 Descriptive words and descriptive writing
- 3 Learning new words
- 4 Describing a character

Maths

- 13 Pythagoras
- 14 Pythagoras
- 10 Frequency graphs
- 9 Going through bits of the test
- 3 Ratio and median, mean and mode
- 3 BODMAS
- 4 Everything
- 4 BODMAS
- 12 Descriptive techniques
- 14 Factorising, expanding indices

Confidence levels

Maths

- 3-7%
- 4-64%
- 5-29%

English

- 3-55%
- 4-45%
- 5-0

Appendix 2

Parental Responses to the Questionnaire

| Student Number | What aspects of the programme do you think were most useful for your child? | Have you seen any differences in your child's attitude to learning over the week? | Are there any things you feel we can improve in the programme? | In a sentence how would you describe the Educate to Elevate programme? |
|----------------|---|---|--|---|
| 9 | The very first day when (student name) said she moved from one table to the next with the support given. | YES. She commented that she enjoyed attending and grasping areas previously unknown to her. | Nothing am happy with what I have seen. | Enabling and Empowering to girls who have all but given up on themselves. |
| 4 | Smaller classes has really helped. Friendly staff and very helpful. | Yes – more confident. | No. | Maths and English is hard! Not at Educate to Elevate! (e2e) |
| 10 | (Student name) clearly benefited from the 1-2-1 tuition & this was proven in a second math's test where her results went from 32/52 to 52/56. | Her reluctance or resistance lessened, however, she did feel there was no need for her to be there for English. | I am confident that (student name) is good at English & personally would prefer for the course to be tailored for just math's & a shorter day, I did feel it was a bit unfair that she lost so much of her Easter holidays, whilst I do appreciate all the help & support it hasn't left much time for revision as she is still going into school this week whilst she remains on leave. | An excellent opportunity to develop and support individuals in areas that have been recognized as requiring assistance whilst also building confidence. |
| 11 | She has gained so much in confidence, especially during her exams. | Yes she wants to learn, loves the play role in maths. | No. | Brilliant. (student name) learned so much. Don't want it to end. |

| | | | | |
|----|---|---|---|--|
| 14 | Learning new techniques of how to do maths, which in turn helped improve her speed when completing maths questions. | This is the happiest my daughter has felt about learning in a long time. She has always wanted to learn, but she seems more relaxed about learning. | No. | Brilliant the programme underpins the Maths and English my daughter is currently doing in school. It is an extremely rare opportunity to get quality tutoring for a teenager at no cost at such a crucial time in there lives. I am very grateful. |
| 13 | Working on developing methods of Maths and ways to retain information | Her attitude to learning has certainly improved and she is keen to do her homework and revise what she has learnt. Also she has enjoyed learning from a teacher who is patient and jovial which has added to her learning experience. | Only to bring this programme to more schools so other children like my daughter can benefit. | I would describe the programme as strategic hands-on learning procedure that focuses on individual learning style in order to get a result. |
| 3 | Understanding the work more clearly. Learning new topics. Helping her revise. | Yes, she has developed new skills in learning over the week. | Blank | Very helpful, as it helps her understand the work more clearly. |
| 12 | Maths | Has completed the homework given without me having to ask her if she has any. | Difficult to answer this question, as I do not know much about the programme. Perhaps it might be beneficial to invite parents to a session where you can explain the programme | An opportunity to enhance students abilities in maths and English. |

| | | | | |
|---|--|---|------------------------------------|--|
| | | | and objectives for the pupils. | |
| 1 | Helping to read more. Child enjoyed maths and found it helped to clarify maths issues unsure of at school. | Yes, doing more study. No comes willingly to classes on Saturdays and sits to study at home without being pushed. | No. Appears to work well as it is. | It's given my daughter the kick start she needs to work harder. Encouraging to assist study. |