The impact of using a Reader Pen on Year 10 learners in a multicultural urban school.

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Introduction

Research conducted by the Department for Education in 2013, found that 17% of 15 year-olds in England do not have a minimum level of proficiency in literacy. In 2013, just over one in eight secondary school learners also had English as an additional language (EAL) and these learners were in the majority in 117 Birmingham schools (NALDIC, 2013). It has been argued that it takes ten years for a learner to move through the five stages of second language acquisition from no language to fluency (Stats Wales, 2013); a high proportion of these learners with EAL have not been in UK schools for this length of time and, although many may be competent in conversational language or Basic Interpersonal Communication Skills (BICS) (Cummins, 2009), and seem therefore fully proficient, they are likely to be challenged by the transition to both receptive and expressive academic language essential for examination success at 16 (e.g. Topping, 2018). These learners are therefore vulnerable and at risk of under-performing in those public examinations so crucial to their future.

Research Project Report

67% of the learners agreed that the pen had been helpful with 72% feeling reading had improved and 50% that their comprehension was better.

The pens were, however, also used quite frequently in geography and across other non-specified subjects (eg history). 99 out of 121 responses also indicated that, when used for the range of subjects, the pens had been helpful.

Positive responses focused on help with pronunciation (3), help with understanding the meaning of key or new words (10), help with understanding the home work (2), help reading worksheets (2), help with grammar (1).

To explore the impact of the Reader pen use upon the both groups, the Wilcoxon Signed Rank Test was used to measure change in the test scores for Silent reading and for Reading Motivation items for both groups over the duration of the intervention.

Significant gains were made by the intervention group between the pre and post-test sessions for the NGRT items (total standardised score, vocabulary score and comprehension score).

Mann-Whitney independent sample tests were then used to compare the gains made by the intervention group with the gains made by the control group for each NGRT item over the period between January and March. No significant differences between the groups emerged indicating no significant differences in their skills development over the course of the intervention.
However, the difference between the two groups’ reading comprehension scores almost reached significance and it should be noted that the control group showed no significant change over this period.

Initially the learners had not been allowed to take the pens out of school but this was relaxed in the second phase and the learners who completed the final questionnaire made more use of them for homework and for their own reading outside school, reporting a broader use and very positive responses.

Learner MX

The MRY10 questionnaire had indicated that, although MX felt happy with her everyday reading, science, maths and exam/test papers, she felt her silent reading was too slow and was aware she did not always understand what she read and that much of the subject vocabulary was hard to read. She cited English, geography and RE as problematic and wanted the pen to help her read more quickly, understand better, learn new words and enjoy reading more. In her interview, she stated that she did find the pen helpful and used it some days for reading worksheets, in English, science, geography and for test papers. She took it to all the lessons and used it all the time at the start but by the end weeks, she needed it less because she understood more and she did not want to keep the pen for the following weeks. She found the dictionary very helpful.

It helped me with a lot of the words which I didn’t understand…. particularly for some difficult words which she looked up and reported that she has remembered. She felt that the pen had made a difference to her reading and how she felt about it.

I understand more words and now I read (out loud) more confidently. Before I would read quietly because I was scared I would get them wrong but now I speak up. I now understand words more across the subjects.

Learner PX

PX indicated no concerns with her everyday or school reading, homework or silent reading speed. However she agreed strongly that she did not always understand what she read, found subject language and vocabulary hard to read and was challenged by exam and test papers. She stated.

My reading for all of my subjects are easy but the meanings is hard. Mostly science.

Her aims were also to understand better and learn new words.

In her interview and summary statement, she felt that it had been quite helpful. She had brought it to lessons every day but only needed it on some days. She used it for homework and for reading a book. She found it helpful in science where it would give me the meaning and I could then figure it out and the same in history where she agreed that she has remembered some of the meanings and now uses them in her work. Pronunciation and definitions were particularly helpful but she was critical of some definitions which were too long and confusing. She wasn’t certain if it had helped.
her reading – I’m not sure – meanings maybe but it has helped her understanding – it helps me because I understand some words I read and it still helps me – I remember.

She suggests improvements - When I read I need to understand some words and the definition of the words was confusing some times. It (the pen) needs to explain it in the way you talk to someone – the definition should be in understanding (understandable) words because it would explain too much and confuse us; like in history I underlined (seeking definition) Adolf Hitler and there were so many definitions! When we scan a word and it explains it is as though it is copied from google and gives everything. There are too many lines of words. You have to figure out which is the one.

PX was however keen to keep the pen if this did not deprive another student.

They had used the pens consistently both in lessons and at home and were particularly enthusiastic. Five learners from phase 2 were interviewed. Learners 28 and 29 were female, 7, 23 and 26 male.

Despite the mixed impact registered from the NGRT scores (Table, the phase 2 interviews provided a positive endorsement for the pens. Two of the three male learners, 26 and 7, were reasonably fluent silent readers and, unlike some from phase 1, more able to skim the dictionary definitions and select the most appropriate. Hence they were not critical of the nature and number of definitions provided.

It was actually good because it has not only one meaning, it has more than one meaning …. When I searched it up and then like listened to it with the headphones and it helped me to pronounce it better. Learner 7

These more competent readers emphasised the positive impact upon reading comprehension,

Yeah (it has) definitely (made a difference to my reading) because like when I didn’t get a word I searched it up and then like listened to it with the headphones and it helped me to pronounce it better. Learner 7

I use it a lot at home….for like information…..like when I need to translate what it means and stuff… meanings…. Like learning words and stuff … and the way you say it because like some of the words are hard to say…. Like complex words, like and stuff like that…. Like how to say them and what they mean. Learner 23

These learners mentioned increased confidence, better concentration and the ability to work independently. They also made a point of using the pen at home for homework.

As in the monitoring questionnaires, the reactions and experiences are mixed. The aims of all three phase 1 learners focused on learning new vocabulary and increasing understanding, particularly in tests. All felt that the pen had helped with subject specific understanding – which was one of the aims highlighted in the initial MRY10 questionnaires – however they also criticised issues around the lengthy definitions offered for vocabulary. The five second phase interviewees were more enthusiastic, also citing improvements with understanding new vocabulary, increased confidence,
better concentration and the ability to work independently. They had also made a point of using the pen at home for homework, revision and reading – this was not necessarily offered to the phase one learners. The group included both learners whose silent reading was almost age appropriate and those with lower scores and it seems that the more fluent readers’ pen use occurs in fewer contexts and focuses on using the pen for definitions and understanding new vocabulary while the newer arrivals in the UK use it more consistently across a range of places and tasks.

This would indicate a need for teachers to consider the background and skills of individuals when issuing pens and supporting the learners in their use. This kind of information and support was not offered to participants in this study as the aim was to explore the learners’ usage, reactions and experience without mediation of this sort.

Teacher reported that J used the pen quite a lot at the start of the project. She showed increased confidence and voluntarily answered more questions in class. She needed less support from the teacher. However, although the four weeks show steady growth in confidence and independent working, there are lapses when she slips back into asking more questions and by the end of the intervention she still does rely on working with a partner. However, she benefits from using her pen with her partner in which they look up certain words together. In her final monitoring sheet J stated that she used the pen some days for reading in English and science words. It helped her a bit in that she

Found out new words also I know words that I once didn’t know.

She also felt that it made a difference to her reading and how she feels about it because

I felt more confident with it also I learn new words and I said the words I didn’t know how to pronounce

And to her understanding because

Some words I know how to say and how to use that word.

However, the trend for wanting to use the pen, not because the learner feels (or admits to feeling) that his or her reading is poor but to develop vocabulary and understanding in academic subjects is noticeable. The users do not seem certain that the pen helped improve reading in general but they mention issues such as understanding, ability to pronounce certain new words, confidence. The teachers cite evidence for developing independence but also mention issues around embarrassment or disruption at the outset when the pens are first introduced. It is clear that the learners who use the pen consistently report the highest satisfaction but this can equally be interpreted that higher satisfaction leads to more consistent pen use.

The learners who were the most pro-active generally got the more use out of the pens as they were more aware of the appropriate times to use them. However, the less able or engaged learners who were usually ‘slow starters’ engaged more swiftly because of the novelty – they started the work exactly as the same time as everyone else and continued to get down to their work more quickly.

Teachers reported increased independence, use of the pen as a scaffold and engagement with tasks but this was not always sustained. The teachers all agreed that the learners needed rather more
guidance on how and when it was appropriate to use the pens so that the pen use is modelled to enable them to use it independently in other subjects.

The statistical analyses of pre and post intervention data for phase 1 had indicated few differences between the intervention and control groups, with the exception of the silent reading comprehension aspect of the NGRT where, unlike the controls, only the post-intervention scan pen users showed a significant improvement over the time of the intervention.

- 82% of responses to the final questionnaires also indicated that, the pens had helped with subject specific understanding. Over half of the learners agreed that reading had improved and comprehension was better although this was not necessarily reflected in the reading scores. Individuals also mentioned pronunciation and reading worksheets.
- However, the drive for pen use to develop vocabulary and understanding in academic subjects, reading remains. Users are again uncertain as to whether the pen improved general reading skills but comment positively on understanding, ability to pronounce certain new words, and those who persist and use the pen consistently report the highest satisfaction – of course this can equally be interpreted that higher satisfaction leads to more consistent pen use.
- Of the 30 pens issued for the study, 21 pens were retained by the students, indicating their approval of the pens.

Overall, interviews with students provided mainly positive outcomes. The second group had been allowed to take their pens home and this had increased the usage with the interviewed students reporting a broader range of activities including, revision, homework and general reading. The five second phase interviewees were more enthusiastic than the first group, citing improvements with understanding new vocabulary, increased confidence, better concentration and the ability to work independently. The group included both learners whose silent reading was almost age appropriate and those with lower scores. The more fluent readers tended to confine pen use to definitions and understanding new vocabulary. The newer arrivals in the UK, or those with lower reading scores, used it more widely and consistently across a range of places and tasks.

**Lessons from the Teachers**

The focus group data indicated that the experience, was mostly positive with increased independence, use of the pen as a scaffold and engagement with tasks.

Although the messages from all data sources are mixed, there is clear indication that many of the participants did benefit from development of vocabulary, reading comprehension, confidence and independence through the six weeks of pen use, particularly when given the freedom to use them both at home and at school.