NURTURING INDEPENDENCE



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Vicky Pimblett, Head of Science, Queen Elizabeth School, Cumbria.



In life in general, we all get enthusiastic about, and invest time in the things we are good at. Even if we initially think we like something, we tend to drift away and avoid things if we subsequently fail to acquire competency. This might explain why many students are often reluctant about specific subjects or school in general and have limited enthusiasm for studying independently.

This is probably why encouraging young people to increase the amount of out of class work is easier said than done. Although verbal encouragement might work in some instances, enthusiasm will only be sustained if students achieve good outcomes from the effort they put in.

The challenge with facilitating an industrious and independent approach, is how to convince students that doing more work will help them to get smarter. This might be difficult as many students might reasonably think they won't do well unless there is support at hand to help them with the work they have been set. This could explain why so many students are often reluctant to do any work let alone work harder.



EzyScience is structured to help students make useful mistakes and provide immediate feedback to help them avoid repeating these mistakes and achieve better outcomes. This aims to help students become stronger, achieve better marks and return for more. The automation of this process means that students can come back for as much as they like and when the growth mindset has been switched on they will put in more effort than teachers might dare to hope for.

Improving pupil engagement and changing the mindset from "can't do" to "can do."

Schools that work with this service have found that it really makes a significant difference to pupil engagement. We have supported Queen Elizabeth School in Cumbria since December 2017. In their first 6 months the school has focused on supporting students heading for the reformed GCSE Science exam. Some of their most active students have spent a lot of time working with the system:

Student Activity Time (Sample)

Student	Biology	Chemistry	Physics	Total
А	06:13:41	09:41:00	04:21:42	20:16:23
В	08:10:05	03:54:32	05:41:57	17:46:34
С	19:35:39	25:07:51	13:27:16	58:10:46
D	21:48:36	18:03:00	21:53:31	61:45:07
E	12:37:43	06:45:23	05:38:46	25:01:52
F	05:28:28	07:05:32	09:26:11	22:00:11
G	19:00:17	01:10:38	00:00:00	20:10:55
Total	92:54:29	71:47:56	60:29:23	225:11:48

Student D said, "I love EzyScience because the videos explain the content so it's more engaging and easier to learn than a textbook or notes. I can feel myself getting better the more time I practise."

Vicky Pimblett said, "Pupils have really enjoyed the independence the system gives them. They can choose a topic they feel they need more help on rather than just doing the revision we set them. It has been good to see that pupils from all across the ability range have been able to make progress and achieve a feeling of success."

The key to inspiring students in this way is to encourage them to use the system effectively.



Watch video and make notes



Watch feedback videos following question errors



Take the matching assessment



Use review option at end to revisit errors – maybe watch some videos again

Some students can work this out for themselves, but others need to be initially supervised (by a teacher, tutor or parent/carer) while they follow this process and experience improvements in attainment. By doing this, students can achieve good outcomes, often far better than they have ever achieved. If this can be achieved the whole mindset can change from "can't do" to "can do" and reluctant learners can be transformed to enthusiastic learners. If this happens it is reasonable to assume that outcomes should improve.

The only issue for traditional approaches is that sudden leaps in enthusiasm are difficult to support. It is highly likely that here will be insufficient time to mark and provide feedback on the increased student output if this is successfully achieved across a wide range of students.

Only possible with progressive teaching attitudes backed by automated activity, marking and feedback.

From a standing start QES still manged to average 15 assessments per child in Y11 in just under 6 months. This means the system hosted, marked, provided feedback and created and analysed records for 3,078 Y11 assessments on behalf of their teaching team (3,700 for all year groups). This level of engagement will almost certainly help students, especially as it is in addition to scheduled work.

Number of Assessments Hosted

Y11 Classes	Biology	Chemistry	Physics	Total	No of Pupils	Average per Pupil
Α	203	197	66	466	23	20
В	78	209	45	332	17	20
С	67	101	25	193	19	10
D	14	24	21	59	18	3
Е	4	10	13	27	5	5
F	186	205	96	487	30	16
G	82	56	72	210	29	7
Н	146	116	86	348	29	12
ı	439	352	165	956	29	33
Total	1,219	1,270	589	3,078	199	15

This level of activity is only possible with automated marking and feedback. In this example the system took on 257 assessments (across all year groups) on behalf of each member of the teaching team. It also made 69,761 learning records on behalf of the teaching team.

Vicky Pimblett said, "Pupils have been really positive about using EzyScience and it definitely reduces marking for staff."

Feedback is the food of champions.

Feedback, in particular, is the difference between a frustrating summative and an inspiring formative assessment experience. Although it is difficult to comprehend, students at Queen Elizabeth School were given the opportunity to review unique feedback following each of over 35,000 question attempts! An almost impossible achievement with a manual approach.

There is huge potential to support far higher levels of independent learning if a committed teaching team embrace new technologies which do not limit a student's appetite for work. Vicky Pimblett added,

"Pupils in classes that received most encouragement from their teachers quickly saw the benefits and then became very independent."

There will of course always be students that are accomplished at avoiding engagement. However, the power of digital tracking and reporting capabilities means that teachers will have a much-improved chance of addressing this issue.