



A VS and the-learning-crowd Project

With Pool Hayes Academy, Walsall and
Academy Transformation Trust.

Agile Learning Spaces Research Project - Report





◀ Gareth Long

Director, the-learning-crowd

Nearly two years ago the-learning-crowd met together and reflected on the work we were doing throughout the UK on supporting new schools design and student performance. We recognised the important research undertaken by Professor Peter Barrett and the University of Salford ('Clever Classrooms') and wondered whether specific furniture choices also contributed to learning outcomes. As a team we decided to initiate and lead on a small year-long research project, based on the impact of specific furniture on student outcomes.

We were extremely fortunate that VS, the German manufacturers of high quality, well designed and 'agile' school furniture, expressed interest in our idea and agreed to work with us. Their furniture designs are research led and based on supporting the physiological needs of growing bodies of young children as a way of improving concentration, engagement in learning and improved well-being.

The project launched during a study workshop tour led by the-learning-crowd to the VS factory in Tauberbischofsheim, and attended by representatives of; primary and secondary schools, major construction contractors, architects, interior designers, local authorities, international school groups, a highly regarded education commentator and Professor Peter Barrett. Sessions included valuable input from Dr. Dieter Breithecker, a German Health and Kinetics Scientist and Europe's leading expert on school ergonomics.

Pool Hayes Academy in the West Midlands (part of the ATT Multi Academy Trust) agreed to be our research partner in this exercise. They provided two learning spaces to be used as test beds, including one to be used as a control option. Two rooms, teaching the same subjects. One with traditional furniture laid out as specified by the teacher, the other room was filled with VS furniture for the students to use and move as they see fit during the lessons. The furniture choices included chairs, desks, stools, bookshelves and 'media walls'.

The aim of this project was to conduct an in-depth and focused evaluation of the impact on a small group of students and their teacher, and to really understand the role played by the furniture. For this academy the experiment has made a positive and significant difference with students more engaged and confident in their learning.

This would not have been possible without the extremely generous support of our partners VS in supplying the furniture for this project, their UK representative: Henning Madsen and VS Sales Manager Linda Jakobs. We are extremely grateful to them.

We are also grateful to Nigel Scorer, Director of Contents Design. the-learning-crowd team on this project included: Senior Associates; Hannah Jones, Dr. Jenny Thomas, Dr. Sharon Wright and Director Gareth Long.



Agile Learning Spaces About The Research Project



Agile Learning Spaces research project has explored the impact of flexible furniture solutions on learning outcomes.

Pool Hayes Academy has hosted the research project. The learning area selected for this project and a total remodelling of their space was 'Health and Social Care'.

The teacher asked to be involved in the research project is outstanding and has recently won Innovative Teacher of the Year by the Trust.

A second teacher was asked to be involved in the research project in a control classroom where no changes in furniture had been made – a very traditional classroom.

Why Health and Social Care?

Health and Social Care is a vocational area of the curriculum that requires organisation of learning to include a variety of groupings and styles of teaching at learning. The current environment with desktops around outside of large classroom with desks and benches does not allow for easily moving furniture around to support learning.

Changing this area so that it is multifunctional and adaptable would have a large impact on the delivery of the curriculum and teaching and learning. This curriculum is mainly taken by female students with a small proportion who are disaffected or have behaviour problems.

Understanding the impact of the classroom environment on learning it is expected that there will be gains in learning but also in student behaviours.

In this research, we aimed to gain greater understanding of the impact of remodelling the space and installing the furniture, by analysing how it is used in practice and the impact that it can have upon behaviour, and consequently learning and wellbeing.

"To share best practice. The furniture, supplied by VS, is designed to promote and allow movement whilst learning, and to be flexible to allow the layout of the space to be instantly reconfigured."

Intended Outcomes

- To develop a greater understanding the impact of the furniture, fixtures and equipment has on pupils learning and health and well-being.
- To improve learning spaces for Health and Social Care.
- To improve teaching and learning opportunities in selected areas.
- To involve staff and students in researching what environments will best support teaching and learning.
- To record the design process.
- To produce high quality materials to share best practice including a research report, case studies and video clips.



"Two rooms, teaching the same subject, taught in a similar way, will operate in totally different ways. One with traditional furniture laid out as specified by the teacher, the other full of VS 'agile' furniture for the students to use and move as they see to during the lessons".

Questions



The questions we were aiming to address were:

1. How and why does remodeling and installing furniture change the behaviour of students and staff?
2. What are the changes in behaviour?
3. What impact could, or do, these changes have upon students learning and wellbeing?

The hypotheses we originally formed was:

1. Remodelling the classroom and installing the furniture will influence student behaviour.
2. Remodelling the classroom and installing the furniture will influence the teaching approach.
3. Giving students permission to move around using the furniture, and adjust the location of furniture will lead to a greater range of furniture layouts observed and changes in behaviour.
4. Not giving students instruction on how to use the furniture will affect how it is used.



Approach

During the project the-learning-crowd along with Pool Hayes staff and students completed interviews and questionnaires at the start, during and at the end of the project.

Interviews

Staff who used the classroom, and the staff who used the control classroom, were interviewed before, during and after the research period. These interviews were used to establish, in more detail, the impact of the space on teaching and learning, behaviour and well-being.

? Questionnaires

Students and staff, from both the research classroom and control classroom, were asked to complete an online questionnaire. This was both before, during and after the remodelling and installation of the furniture. The questionnaires focused on use of the learning space and behaviour, including concentration and well-being.



How Are Teachers Using The New Spaces?



Interviews Feedback

Mary Robbins has been at Pool Hayes Academy for ten years during which time she has led the Health and Social Care and Child Development courses and is recognised as a very successful practitioner.

In recent years Mary has seen massive improvements in student outcomes, uptake of the courses she leads and innovative approaches to learning and student engagement.

Mary was asked if the new environment is helping her teaching and improving students learning, and if so why?

Teachers Feedback

"In the new classroom I move around a lot. I use all of the space – I move to work with the students on their boards, I move around to work with groups more."

"In terms of pace – assessment is much quicker, teaching and learning is much quicker. What I might have put out as a twenty-minute large group activity I would maybe now do ten minutes and then get small groups to carousel and review each others work."

"In the control classroom I feel constrained – it's just the front I teach from really in there. There's less reason for us to move in there – the students hate it they say why can't we be in other room?"

"Students come in and automatically move the furniture to how they want. They naturally did from day 1 to suit their learning. In my planning too, which I didn't perceive at the start, I am planning the room as well."





How Are Students Using The New Spaces?

Interview with Students

Due to the difficulty in measuring a direct impact of the furniture on learning and wellbeing, the research team have been monitoring behaviours, particularly those we know to have an impact upon, or signify, concentration and engagement in learning.

Interviews with the staff and students demonstrate that:

- Students take ownership of their own learning well within the spaces.
- Students 'fidget less' but move more.
- Having different types of working areas in the room is important.
- Space for movement and collective working is needed.
- Areas for students to collectively work together - at tables and at walls is important.



So what do students think of the new spaces?

"We move the tables and chairs as we need. We much prefer working in here it feels older, more responsible."

- Year 10 Student

"We like working at the boards – we work well together with this and can take photos of our work at the end so we can all have."

-Year 10 Student

"I used to fidget a lot, tap my pen, my fingers etc. Just fidget. Now I can move about I don't fidget and tap, tap, tap anymore."

-Year 12 Student

"We love the whiteboards on the wall we can write on. I use them for my own as well as work and take photos of the board so I can flip back to them when I need."

-Year 12 Student.

"I'm not actually supposed to be in this room – I don't have any lessons in here but I come in in my free periods."

-Year 12 Student

"It's a lot more relaxing in here. I come in here and it free's my mind to work."

-Year 12 Student



Questionnaires

Feedback



The Results

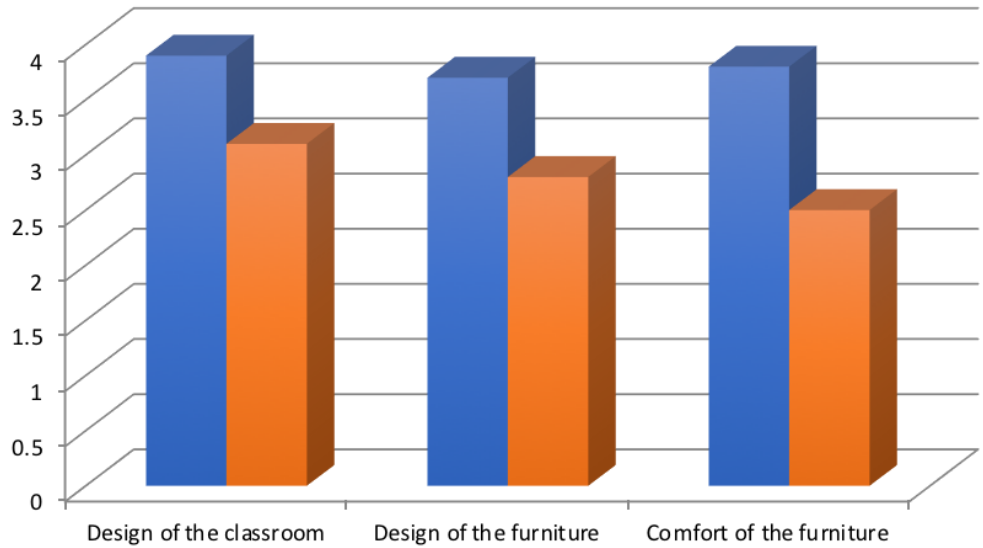
Research Results from Student and Staff Questionnaires

The research design is a quasi-experimental design.
This means that a control group of students, who are studying health and social care in another classroom, have been incorporated within the research.

Results from Pool Hayes

Students reported being more positive about the new classroom, and all aspects of the design.

	Avg. star rating VS classroom	Avg. star rating Control classroom
Design of the classroom	3.9 stars	3.1 stars
Design of the furniture	3.7 stars	2.8 stars
Comfort of the furniture	3.8 stars	2.5 stars

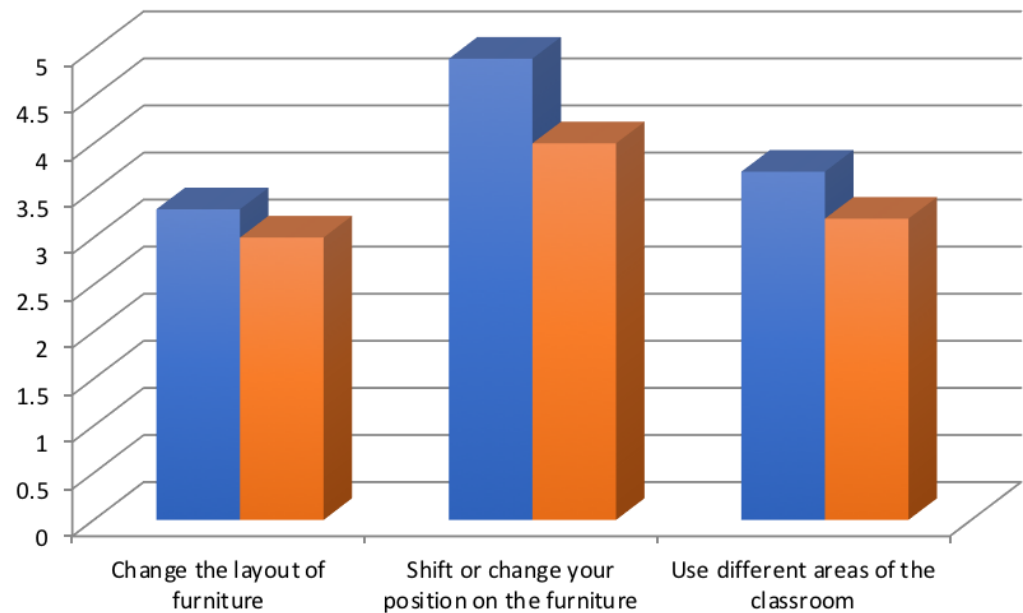


Key: Blue: VS Classroom and Orange: Control Classroom

Questionnaires Results continued...

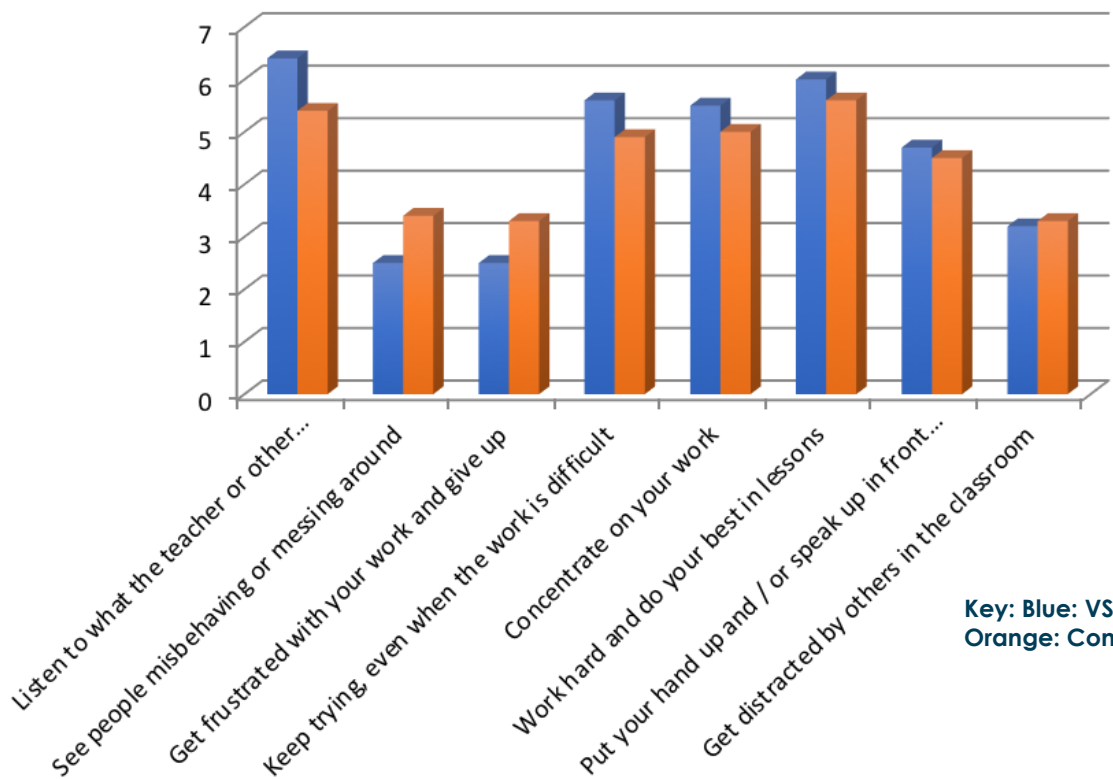
Students in The VS Classroom Teacher's class scored themselves more positively on all scales within the questionnaire. They were asked how often the following happened:

	How often do you...? (Scale of 1 to 5) VS Classroom	How often do you...? (Scale of 1 to 5) Control Classroom
Change the layout of furniture	3.3	3.0
Shift or change your position on the furniture	4.9	4.0
Use different areas of the classroom	3.7	3.2



Key: Blue: VS Classroom and Orange: Control Classroom

	VS Classroom	Control Classroom
Listen to what the teacher or other students are saying	6.4	3.1
See people misbehaving or messing around	2.5	3.4
Get frustrated with your work and give up	2.5	3.3
Keep trying, even when the work is difficult	5.6	4.9
Concentrate on your work	5.5	5.0
Work hard and do your best in lessons	6.0	5.6
Put your hand up and / or speak up in front of others	4.7	4.5
Get distracted by others in the classroom	3.2	3.3



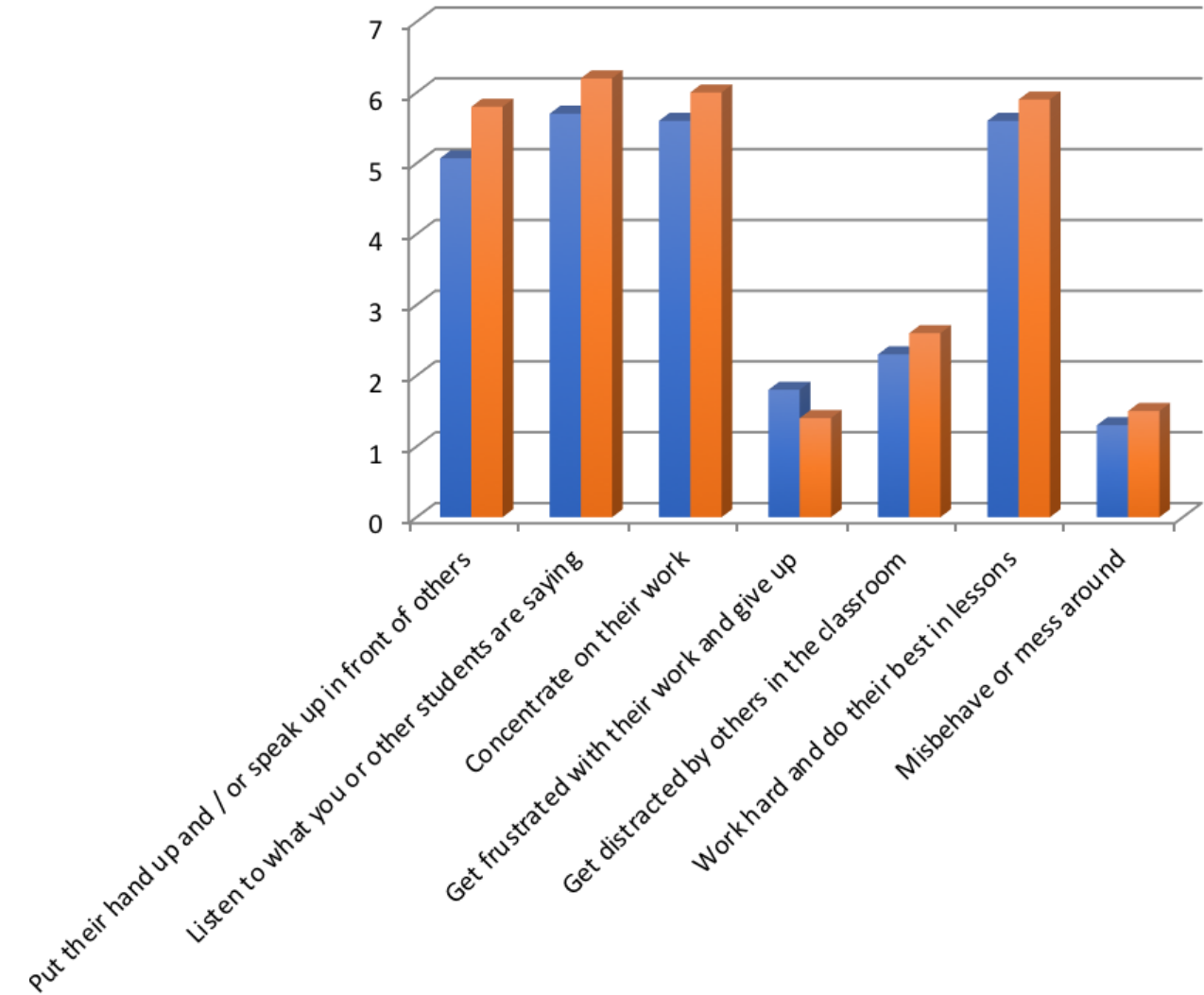
Key: Blue: VS Classroom and Orange: Control Classroom

Questionnaires Results continued...

Teachers

The VS classroom teacher rated students in her class at the start and end of the study. She reported that there was a positive change on 5 out of 7 of the measures. Responses were given as a frequency on a 7 point scale.

	Start (Nov 2017)	End (July 2018)	Average Difference
Put their hand up and / or speak up in front of others	5.7	5.8	0.7 (+ve)
Listen to what you or other students are saying	5.7	6.2	0.5 (+ve)
Concentrate on their work	5.6	6.0	0.4 (+ve)
Get frustrated with their work and give up	1.8	1.4	-0.4 (+ve)
Get distracted by others in the classroom	2.3	2.6	0.3 (-ve)
Work hard and do their best in lessons	5.6	5.9	0.3 (+ve)
Misbehave or mess around	1.3	1.5	0.1 (-ve)



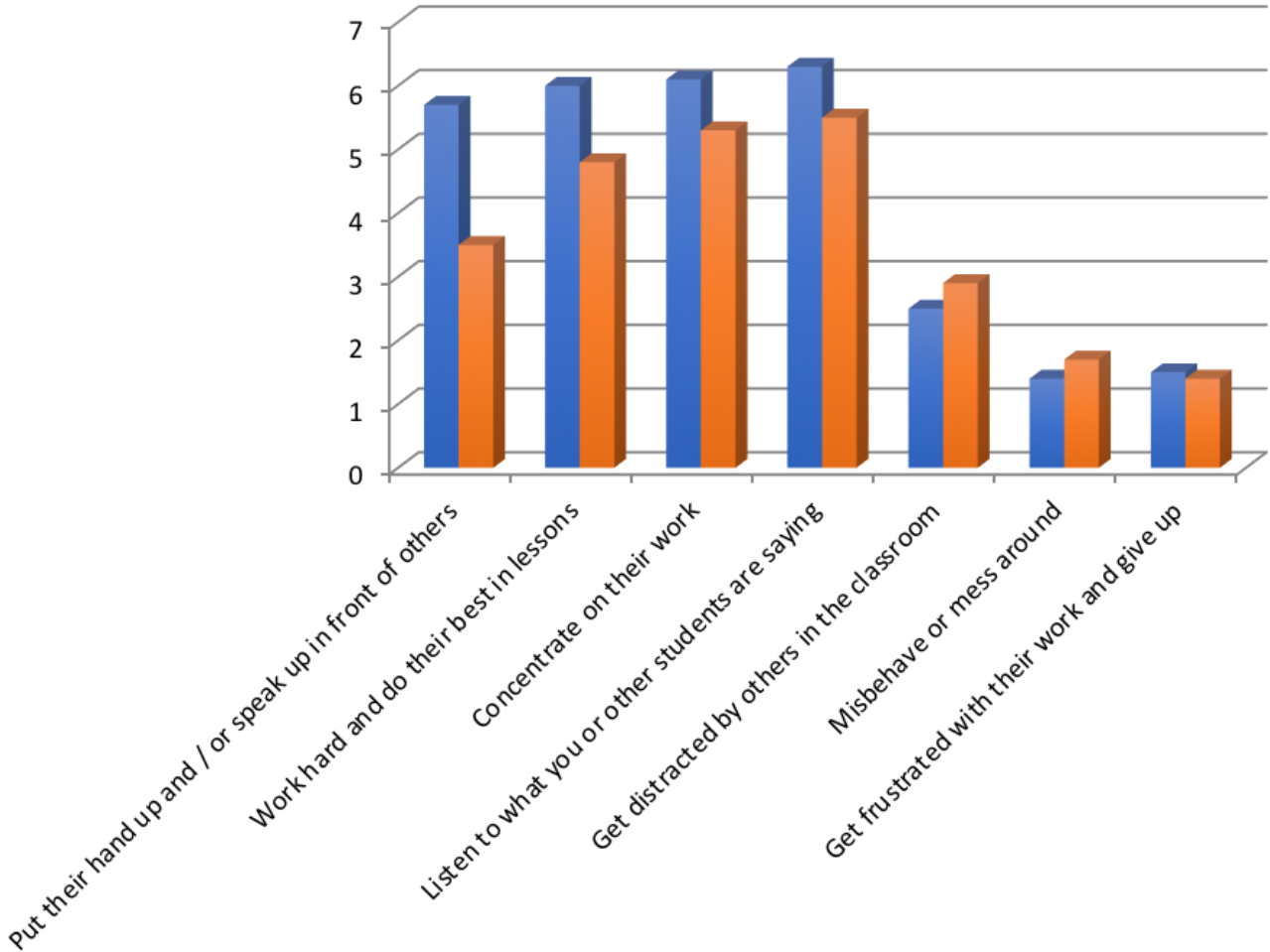
Key: Blue: VS Classroom November 2017 and VS Classroom July 2018

Questionnaires Results continued...

The VS Classroom Teacher reported more positive scores for her students than Charlotte in July 2018.

	VS Classroom	Control Classroom	Difference
Put their hand up and / or speak up in front of others	5.7	3.4	2.2
Work hard and do their best in lessons	6.0	4.8	1.2
Concentrate on their work	6.1	5.3	0.8
Listen to what you or other students are saying	6.3	5.5	0.8
Get distracted by others in the classroom	2.5	2.9	0.4
Misbehave or mess around	1.4	1.7	0.3
Get frustrated with their work and give up	1.5	1.4	0.1 *

* this is the only negative difference, The VS Classroom Teacher reported that her students were slightly more likely to get frustrated with their work and give up than Charlotte.



Key: Blue: VS Classroom and Orange: Control Classroom

Feedback from... Pool Hayes Academy



Final thoughts from the Academy Principal Luke Baker and Mary Robbins lead teacher of the VS classroom during the project.



▲ Luke Baker
Head Teacher,
Pool Hayes Academy



▲ Mary Robbins
Teacher,
Pool Hayes Academy

"If I had my way, following this research project, I would equip every room with VS furniture. It's had an amazing impact – I'd love to see it tried in more academic subjects. It's opened up learning - given it a new dynamic."

-Luke Baker, Head Teacher

"The room works really well – and now I plan for the room as well as lesson - previously I had never thought about it."

-Mary Robbins, Teacher

"Pupils love it -it's their favourite room and they get very upset if they have to move to a different lesson. Agile furniture on wheels makes reconfiguration of lessons easy - students more involved in their learning and teacher can access everyone very easily - behaviour and engagement in lessons has improved."

-Mary Robbins, Teacher



"The VS furniture and set up in the classroom has made a massive difference."

-Mary Robbins, Teacher

"We use that room for CPD and for trainee teachers to discuss pedagogy. Staff love it, and every parents meeting in small groups takes place in that room to explain the design and impact on learning."

-Luke Baker, Head Teacher

"A particular favourite is the VS Media Boards. They give focal points, students go to boards - previously very shy students would not go to front of room to write on board but are happy to go to the media walls, write and present from where they are. Everyone has a pen and everyone can circulate and see what others have done, magpie ideas and constantly improve their work. These boards have really improved concentration and confidence amongst our pupils."

-Mary Robbins, Teacher

"Most importantly pupils love the room - we need to invest more in our kids!"

-Luke Baker, Head Teacher

"Previously we had more furniture in the classroom, pre VS, and I thought we may need more. However we have had no extra FFE put in the room after whole year - what they have is sufficient and works."

-Mary Robbins, Teacher

"The VS classroom allows each class their own identity and ownership of their learning space. The room is even used a lot at break and lunch times by pupils who come in to socialise or work – even some that don't have lessons in the room normally."

-Mary Robbins, Teacher



For more information please contact
Hannah Jones of the-learning-crowd
on 07795 278 532