



City and County of Swansea

Notes of the **Scrutiny Performance Panel – Schools**

Committee Room 3A - Guildhall, Swansea

Thursday, 7 June 2018 at 4.00 pm

Present: Councillor M Sykes (Convener) Presided

Councillor(s)

C Anderson
S J Gallagher
L James
M A Langstone

Councillor(s)

A M Day
L S Gibbard
S M Jones
L J Tyler-Lloyd

Councillor(s)

M Durke
D W Helliwell
L R Jones

Co-opted Member(s)

D Anderson-Thomas

Other Attendees

Janet Waldron	Headteacher, Pontarddulais Comprehensive School Deputy Head Pontarddulais Comprehensive School
Jeff Bird	Headteacher, Bishopston Comprehensive School
Sian Forwood	Science Teacher Bishopston Comprehensive School
Stuart Jacob	ERW Leader of Learning
David Bradley	ERW Leader of Learning
Alan Edwards	ERW Leader of Learning

Officer(s)

Helen Morgan - Rees	Head of Education Achievement & Partnership
Michelle Roberts	Scrutiny Officer

Apologies for Absence

Councillor(s): B Hopkins

1 Disclosure of Personal and Prejudicial Interests.

Cllrs Sue Jones and Mike Day

2 Notes and Conveners Letters

The notes of the Panel meeting on the 17 May 18 were accepted.

3 Data for the Performance of Science in Schools

Helen Morgan Rees, Swansea's Head of Achievement and Partnership Service along with Alan Edwards, Stuart Jacob and David Bradley who are Leaders of Learning at ERW attended the Panel, providing information on how Swansea

schools perform in Science and how this compares with other local authorities and other regions in Wales. Some of the issues highlighted and discussed include:

Data on Science Performance Swansea Schools 2015-2017

Key stage 4 level 2 Science by local authority in ERW region

Swansea performance by gender and free school meals at C grade and above

Key stage 3 level 5 Science

Swansea performance by gender and free school meals at expected level

Swansea performance by gender and free school meals at expected level +1

Key stage 3 level 6 Science

Key stage 2 level 4 Science

Key stage 2 level 5 Science

- Current performance across Swansea schools means that three quarters of learners gained a grade C or above at GCSE Level 2 Science. This performance places Swansea on a par with the national average and eleventh out of the 22 local authorities in Wales
- Although rank position is an improvement on the previous year, overall performance has decline during the last two years. However the decline in performance is in line with the national decline in performance
- At a regional level, Powys, Ceredigion and Carmarthenshire performance is higher than Swansea's. Previously Swansea has compared more favourably within the region
- Free school meal pupil performance for this indicator sees a widening gap in 2016/2017 with a difference of 23.6% points in comparison to no-fsm
- The gender difference in performance has remained stable during the last three years and is not significant
- Contextualised performance (considering similar schools with each other across Wales) show that half of Swansea schools appear in the top 50% of similar schools
- Value added information indicates varied performance across Swansea schools. In addition, there is stronger capacity and preparedness in a few schools to face the new science qualification, examined for the first time in Wales in 2018
- Schools receive an overview of their performance data and look at their science results to identify their strengths and areas of challenge are. Support provided by ERW leaders for learning.
- What would be the template of an effective science department in a school?
ERW Leader of learning responded and said:
 - Schools self-review good
 - Long term plan for topics and consistency
 - Assessment (classes doing same assessment)
 - Good teaching and learning
 - Data used and compared in school
 - High quality resources
 - Subject specialist in front of class, if not then specifically trained teacher
- Science at KS2 does not seem to have as higher profile as it used to have because of the focus on literacy and numeracy. Must recognise that science can also be used to develop numeracy and literacy

- ERW have a science programme in place to upskill teacher to teach science subjects and are currently working in a number of Swansea schools both comprehensive and primary
- Important to keep an eye on the KS4 results because of the new qualification and its impact
- Figures will be more reliable in Science subject in future years because the BTEC figures will no longer form part of those results.

4 Q&A session - Performance of Science in Schools across Swansea

Invited to attend Janet Waldron the Headteacher from Pontarddulais Comprehensive School, Jeff Bird the Headteacher from Bishopston Comprehensive School, Helen Morgan Rees Swansea's Head of Achievement and Partnership Service and Along Edwards, Stuart Jacob and David Bradley Leaders of Learning at ERW. They took part in a roundtable discussion with Councillors focussing on Science in Schools in Swansea. Those attending were given a number of background questions to prepare them for this session, including:

- How are we encouraging and inspiring pupils to take up science
- How accessible is science to all pupils
- How we link with and use private, public and university sector
- How good practice is shared and celebrated
- Recruitment and retention of science teachers
- How are young people advised of next steps in science after school
- Is the curriculum sufficiently geared to towards science

The following issues were then raised and discussed:

- Not a gender gap in science within schools in Swansea. Neither Pontarddulais nor Bishopston Comprehensive Schools experience any issues in this aspect. Both schools get a good balance of pupils taking science including double and triple science. The data across wider schools also reflect this.
- The figures begin to change as pupils move on to 6th form or college when less females choose these options. Both schools said while at school girls enjoy and do well in science.
- Panel were interested in why it is the case that few girls take up science subjects when continuing education 16+. The Panel considered speaking to those teaching KS5 subjects to establish this. The meeting reflected on whether this may be a societal issue and that more publicity around female role models in science is needed.
- Need to consider how we get pupils to take science subjects up beyond school.
- Panel thought that it may be useful to do a sampling of exit interviews with pupils leaving school moving on to further education to establish why choices are made, and maybe we can learn from this.
- JW said that at Pontarddulais Comprehensive there is a real focus on the development of science. They have been working with their cluster primary schools, starting with Foundation Phase. They have had monies from the regions to develop science with these cluster schools. Important to invest in primary years so when they come through to Secondary they are much better

prepared. This improved emphasis on science should in the longer term improve the take up of in science later.

- The issue lies more with the gap between free school and non-free school meal pupils with a widening gap in performance.
- JB said that at Bishopston Comprehensive School they do as much practical and contextual activity as possible, taking pupils from design through to completion of a project
- Skills and knowledge of the teacher important, ideally a subject specialist but if not teacher trained/developed to specifically teach science. Please to hear that ERW offer this.
- It was felt that the use of new technologies and digital activities were useful but it does not replace the need for excellent teaching. High quality teaching and learning is absolutely the way forward in science. It is also important that there is support to achieve this. There are a number of tiers of support including school to school.
- The importance and focus the school puts on science by the school is also one key element in how pupils engage and ultimately become inspired.
- Good practice is shared through science teacher group, through challenge advisors and through school to school support (not only across Swansea but wider across the region).
- JB from Bishopston Comprehensive gave a good example to where they work with primary schools at pupil's transition. They have project on flight that starts in the pupil's final year of primary and continues into secondary. They get the children to do as much practical work as possible. Also free up laboratory time that can be used by cluster primaries.
- Picture locally in science in Swansea is good in secondary particularly, it is not as bigger an issue here as it may be for other local authorities in Wales.
- University of Wales Trinity St David is offering a conversion course for teachers who wish to specialise in Science subjects.
- Recruitment of science teachers not a particular issue for Swansea.
- HWB is hugely beneficial for sharing of knowledge etc.
- University has a clear role in science particularly in linking in with schools.
- The Panel felt that the use of role models from tech and science related industries in schools to inspire pupils could be beneficial. Schools develop more links with industry.
- The meeting discussed preparing pupils for the world of work in particular what employment opportunities may be available in the future for pupils in future. City Deal was mentioned and the links with what we are currently teaching. The Panel agreed that schools particularly Secondary need to have more detail so that they can look at the skills being developed in relation to the city deal. They asked if a pack could be provided to schools that gives more details like for example: what will it mean in terms of jobs, what will be the actual opportunities be, what skills will be required, types of salaries etc. They felt that it is all rather abstract a moment.
- The Panel were disappointed to hear that work experience taking pupils to work for a short time outside school in local business has stopped in many schools. Councillors heard that it is very difficult now in terms of health and safety.
- Careers fayres and other events that might inspire young people into science and technology development and help identify opportunities in science. Idea of an

event being held to help inspire and show opportunities for young people was raised. The idea of a short 10 minutes film that can be shown to young people in Schools to help inspire them to choose technology/science as a career path.

- The importance of encouraging and supporting pupil's resilience skills is having a clear impact and should continue to be encouraged.

A letter from the Panel Convener will be written to the Cabinet Member for Education Improvement, Learning and Skills outlining the Panels thoughts.

5 Work Programme 2018/2019.

A date for the pre-decision Scrutiny of changes to the Ethnic Minority and Achievement Service has been added to the Work Programme. This will take place on Wednesday 18 July and view will be reported to Cabinet on 19 July. The visit to a Foundation Phase facility will be rescheduled.

6 For Information Item

The recent Estyn Inspection published for Craigfelen Primary School was noted.



**To/
Councillor Jen Raynor
Cabinet Member for Education
Improvement, Learning and Skills**

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21 June 2018

BY EMAIL

Summary: This is a letter from the Schools Scrutiny Performance Panel to the Cabinet Member for Education Improvement, Learning and Skills following the meeting of the Panel on 7 June 2018. It is about the performance of science in schools in Swansea.

Dear Councillor Raynor,

Schools Scrutiny Performance Panel – 7 June 2018

On the 7 June 2018 we had a dedicated meeting to look at how we inspire and engage pupils in science in schools in Swansea. We chose to do this because we recognise that science should be exciting for young people, giving them the skills and opportunities to improve their futures.

We spoke to the Headteachers of two schools who are performing particularly well in their outcomes in Science subject areas, Bishopston Comprehensive School and Pontarddulais Comprehensive School. Also invited to participate were the Leaders of Learning for Science at ERW and the Head of Education Achievement and Partnership in Swansea. A number of issues were looked at including:

- Data on performance of schools across Swansea in Science, comparative data across ERW region and also the ERW region with other regions across Wales
- How pupils are encouraged and inspired to take up science subjects (particularly encouraging female take up)
- How we ensure that all pupils have high aspirations in science
- How we are learning, sharing and celebrating good practice in science subjects
- How do excellent schools engage and retain the interest of pupils in science
- How we advise young people about next steps in science after school
- How do schools link with 6th forms and colleges to ensure progression in science subjects

OVERVIEW & SCRUTINY / TROSOLWG A CHRAFFU

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To receive this information in alternative format, or in Welsh please contact the above

We found this session to be not only informative but beneficial in identifying where some of the issues in relation to science education may lie and in establishing some learning points. We would therefore like to share our findings with you.

- Current performance across Swansea schools at KS4 shows that three quarters of learners gained a grade C or above at GCSE Level 2 Science. This performance places Swansea on a par with the national average and eleventh out of 22 local authorities in Wales. We heard that the rank position is an improvement on the previous year but overall performance has declined during the last two years. This is in line with a national decline in performance.
- Value added information indicates a varied picture of performance across schools in Swansea. We heard that performance may be varied because of the inclusion of the BTEC outcomes data and that from next year this will not be included in the figure, so should be a truer reflection. We also heard that the new science examination will come in this year.
- There does not seem to be gender gap in the take up of science subjects in schools with both boys and girls doing equally well. The issue arises when pupils move on to 16+ where it is much less likely that girls will choose science options. It was felt that schools could complete a sampling of exit interviews each year to understand why certain subjects are chosen when continuing in education post 16, which will help establish why pupils are choosing (or not choosing) certain career paths.
- That the main challenge that schools face in relation to science, as with other subjects, is the gap in performance between free and non-free school meal pupils. In 2016-2017 the difference was 23.6%. The panel will look at how schools are using their pupil deprivation grant to address this later in the year.
- Comprehensive schools working with their cluster primaries around early development of science is very positive. This way of working was exemplified at Pontarddulais Comprehensive School with their cluster primaries. We felt that it is important to invest in pupils' primary years so when they come through to Secondary they are much better prepared and would like to see more cluster working around Science.
- A good example of combining science and the transition from Primary to Secondary School was outlined by Bishopston Comprehensive. They have a project on flight that starts in the pupils' final year of Primary schools and continues into Secondary.
- The freeing up of laboratory time in the feeder Comprehensive School so it can be used by cluster primaries was also highlighted as an excellent use of limited facilities and should be considered by other comprehensive schools. We recognise that this will depend on a number of issues like for example the proximity of the primary schools and transport etc.
- When engaging and inspiring pupils in science contextual and practical activities are crucial.

- The University sector should have a clear role in supporting science in Swansea schools and they are currently working towards this aim.
- The use of role models from local industry was felt by the panel to be a positive way forward in inspiring young people to take up and continue in technology and science beyond school. The panel supported the idea of Careers Fayres, an inspiration event and a short 10 minute video for schools to use to inspire their pupils when they are beginning to think about their career paths.
- Currently very few schools use work experience as a tool inspire and develop young people, giving them a taster of the world of work. The panel recognise that this can be time consuming and difficult to arrange but can be beneficial to pupils.
- The development and support in schools of pupil's resilience skills is having a clear impact and this should be encouraged and continued.
- Support for schools and individual teachers is vital. The skills and knowledge of the teacher was seen as central to learning, ideally with classes being led by a subject specialist but if this is not possible then teachers are trained/developed to specifically teach science. We were pleased to hear that ERW offers this development option and also that University of Wales Trinity St David offers a conversion course for teachers to become science subject specialist. It was felt that the use of new technologies and digital activities were useful but it this does not replace the need for innovative and excellent teaching. High quality teaching and learning is absolutely the way forward in science.
- The overall focus of a school on science, the longer term planning and use of data were also seen as key elements in how well pupils engage and perform. The panel felt that the schools leadership and commitment to science and technology will ultimately reflect in pupil's enthusiasm and overall inspiration in those subjects.
- Science seems to have reduced in priority in the primary sector with the focus in being on literacy and numeracy. It was felt that literacy and numeracy are not separate to Science and can be learnt through the use of science subjects.
- The Panel have been keeping up with the new curriculum and are awaiting with interest to see the impact of these reforms. With a more cross-curricular approach and the new 'areas of learning' science might be better accommodated into the timetable particularly at primary level.

We did not have time to look further in Science as pupil's progress 16+ at this meeting but hope to look into this further this year.

We would welcome your thoughts on any issue within this letter but would particularly like you to give us your views on to the following:

1. Schools completing a sampling of exit interviews each year to understand why certain subjects are chosen when continuing in education post 16.
2. More cluster working around Science.
3. Schools using projects that cross the transition between primary and secondary schools at KS3.
4. More secondary schools making their laboratories available to their cluster primaries when they not in use.
5. That activities to inspire pupils into science careers be considered for example by the use of Careers Fayres, an inspiration event and a short 10 minute video for schools to use to inspire their pupils (in collaboration with local industries).
6. The panel would like to see the profile of science raised in primary schools with science used to develop literacy and numeracy more.

Could we please have your written response by 12 July 2018.

Yours sincerely,

COUNCILLOR MO SYKES

Convener, Schools Scrutiny Performance Panel

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