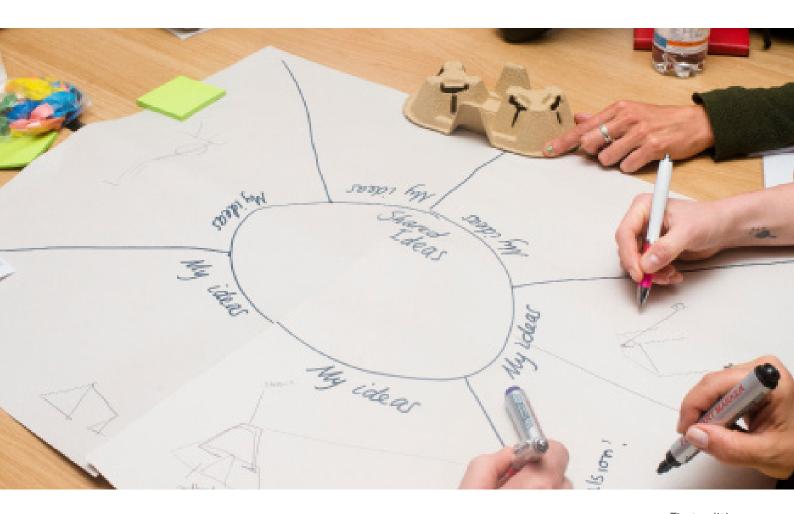
PSTT Cluster Programme

COORDINATOR SUPPORT AND GUIDANCE



First edition

The purposes of this booklet are to **celebrate the successes** of the Cluster Programme so far, to **share experiences** from our different clusters and to **provide pointers** for further progress.

The intention is to support Coordinators and clusters with additional guidance for our continuing development together.



INTRODUCTION

In 2015/16, we set out to use the experiences from earlier AZTT-funded cluster programmes and research surrounding these to establish the current PSTT Cluster Programme. The PSTT College Fellows are central to this strategy which aims to provide opportunities for Fellows to establish collaborative groups of Science Subject Leaders (SSL).

The Programme facilitates these groups to develop and improve science teaching and children's learning in their schools and localities. Designed to be supportive, the strategy focusses upon independence and eventual self-sustainability. Within a clear structure, the Programme aims to be flexible enough to foster individuality and to promote innovation.

CLUSTER PROGRAMME STUDY

With the Cluster Programme in its fifth year and about to complete its first full cycle, we have carried out a study of the programme and our progress so far. The Cluster Programme Study focussed upon the quantitative and qualitative data provided by the end of year reports from each cohort of clusters. The findings provided much of the information for this booklet, however, all data sources available within the Programme have contributed.

SUMMARY OF THE MAIN SUCCESSES

Profile of science: The raising of science's profile within schools and their localities is widespread and significant. In certain difficult situations and at certain times, for a few Clusters, maintaining the profile of science has proven an appropriate and worthwhile success criterium.

Relationship and collaboration: Building strong relationships and collaborative activity between individuals and between schools is central to success in the strategy. This is a strong feature of the Clusters in each cohort and is highly valued by the groups.

Support: Coordinators and Clusters feel very much supported. Of course, at times specific issues occur; however, both within groups and from the Programme, high levels of support clearly exist.

Purpose and impact: Sound aims are necessary for a successful application and it is clear these are being put into effect. Clusters implement their intentions, adapt their aims, and develop their initiatives. Individual clusters and the Programme have significant beneficial impact on children.

Progress and maturity: Evidence shows all Clusters have developed over the period of the Programme. Although some may experience setbacks or barriers, with increasing cohesion, confidence and capabilities, Clusters make progress and mature.

Professional development and leadership: Science Subject Leads (SSLs) and Cluster Coordinators all benefit.

Resilience: Clusters continue to operate, sometimes in challenging circumstances and workloads. Together, there is a robustness in the collaborations established and within the Programme.

Self-sustainability: The first two cohorts that are nearing the completion of the five year Programme record optimism for the future of their Clusters and at this stage, plan to continue as a group in some form (although this is yet to be defined).

WHAT HAVE CLUSTERS WORKED ON/ACHIEVED?

Please note: a full list is available in PSTT Cluster Programme Study appendices 1 and 2, or on the PSTT website.

PSTT linked initiatives

- a. Use of PSTT resources e.g. Titanic, Chain Reaction, Playground Science, Science Fun at Home
- b. Involvement in College or other projects e.g. Flying into Physics, Leading Research Learning Communities

Professional and curriculum development

e.g. sharing and disseminating ideas, auditing and moderation, subject leader role, best practice, progression and curriculum design

Cluster generated projects

e.g. Playful Approach, 10 Key Words, outdoor learning, science fairs, Mars Rover Challenge

Working beyond the Cluster and providing outreach

- a. In the locality e.g. involving local universities, local businesses, other schools in the area, Local Authorities
- b. Wider involvement e.g. Great Science Share for Schools, CLEAPPS, ASE, links with associated MATs, STEM ambassadors

Professional achievements

e.g. Forest school, PSQM, Royal Society Grants, BP Enthuse Award, Global Learning, PSTA

HOW DO CLUSTERS SPEND THEIR FUNDING?

Part A

- Meetings supporting or subsidising the supply costs for a whole day or half day (most popular)
- Sub-groups or paired work on a project that then contributes to the Cluster
- Visiting one another's schools and working on or supporting an initiative
- Identified needs for individuals e.g. meeting with the coordinator or mentor or to support a new member/someone new to SSL
- CPD on behalf of the group or develop/prepare CPD for the Cluster (or for outreach)

Part B:

- Resource needs identified from Cluster and school audits
- Targeted resources to support developments of the Cluster
- Targeted resources to base projects upon
- Shared resources either a) centrally-held expensive ones to share or b) themed boxes created by the group to share between schools
- Designated funds to support individuals to carry out a specific responsibility on behalf of the Cluster, such as organising a group event
- Buying in or subsidising the cost of a CPD provider for a specific need or supporting an aim
- Conference or course costs for a teacher sent on behalf of the group

Coordinator's Allowance:

- Organising, managing and running the Cluster
- Meeting individual SSLs from the group for a variety of purposes
- Visiting a school in the Cluster or joining a headteachers' meeting

Coordinator's allowance may be used for a specific whole day, half day or be an accumulation of shorter times.

CHALLENGES AND EXAMPLES OF HOW CLUSTERS HAVE **OVERCOME THEM**

Changes in circumstances

Although not prevalent, major changes that are out of the group's control or come out of the blue do occur. Potentially, they can have a significant impact.

Change A:

One or more schools may be in a Federation or MAT*, or join one midway through the programme and, in doing so, may have changing priorities that are out of the SSL's or school's control.

Change B:

Similarly, significant changes in school development plans in response to circumstances such as OFSTED inspections have occurred in individual schools or in several schools in the same Cluster.

Change C:

Specific circumstances can significantly affect the ability of a Cluster to continue for a period. These may be experienced by an individual SSL (when a temporary replacement is unavailable), a school or by a Cluster Coordinator. There may be positive reasons, such as maternity leave or changes in roles, or more sadly, bereavement, sickness and school closure.

In cases like these, it is best to contact the Cluster Director, talking things through to find suitable solutions or a way forward, together. The Trust's position is to be as supportive and understanding as possible. Examples that have been found include:

General response

- Through strategic leadership, a Coordinator or Cluster may be in the position to offer support and the group can contribute towards the school's response and subsequent improvement
- A SSL or the school could take a sabbatical for a set period (then reviewed)
- The Cluster's medium-term goals could be changed to directly address the need or altered / applied with flexibility and therefore accommodate the need

Changes in the group

Sometimes it can feel rather frustrating but it is a feature that Clusters deal with well and there is much success: "New SSLs have been welcomed: All mentioned how much they enjoy being part of the group – new members report being keen to join because they know how supportive and proactive the group is!"

Cluster A:

"A change of members may change the relationships in the group but I think that being clear about expectations, allowing all to showcase their expertise and feel that it is a supportive environment to share and grow will help."

Cluster B:

"Some staff changes, but this has been planned for and heads have been supportive of ensuring new staff are part of the cluster. New staff brought in have worked closely with cluster lead to bring them up to speed."

Cluster C:

"Turnover of SSLs has been an issue. To address this problem we have spoken to Heads about the importance of keeping the same Science Leader and valuing/supporting the role. This has led to Science Leaders staying in post for longer."

Developing a shared vision and joint goals

All Clusters, whether new or made up of SSLs who know each other well, need to have a shared vision and joint goals. These may take a little time to develop and will need to be maintained or revisited over the five years. Forming them is often an enjoyable and fulfilling process that pulls the group together, gives it focus and drives it forward.

"At first, most of the group didn't know one another. So, I started by focussing on building **Cluster A:** relationships, sharing ideas, CPD and doing simpler projects. Then, we were in a position to form more solid and ambitious group goals together."

Cluster B:

"Sometimes there are conflicting priorities of our schools, e.g. when to prioritise science. We gave our project a broad theme and a long run up time so schools could, at their own pace, accommodate it in their planning for the year."

"Each subject leader completed a self-awareness questionnaire and identified which areas they Cluster C: needed support with. This helped us to identify that planning scrutiny was a difficulty. The selfassessment tool allowed us to use some of the cluster meeting time for this shared need."

Top tips

- Build trust and openness
- Relationships are key
- Balance leading the group and letting them Create both simple and ambitious goals set the direction
- Know when to listen

- Set a mix of short, medium, and long-term
- Create group aims that can be adapted to schools

Lack of engagement

There are all sorts of reasons why some SSLs or schools may find it hard to engage in the Cluster either at the beginning or at some point during the programme. Occasionally, there may be hesitancy or even a degree of reluctance. Inclusive Clusters that have the right balance of support and expectation are the most successful at engaging members. (Ultimately, making the most of being in a PSTT Cluster is the responsibility of each individual school.)

Cluster A:

"Three of the schools had attended only one or two meetings. To address this, I reminded them of the funding, which was available for them to attend, moved the start time to allow more time for those travelling a further distance and emailed the head teachers to remind them of the cluster agreement."

Cluster B:

"I did go and see two headteachers at the beginning of this term, to express concern about their participation. Resulted in one of the heads coming to a meeting herself. She has now appointed a new science leader and the other school is appointing second person to share the role."

Cluster C:

"School's science lead was unable to join us for year one. Another member of staff attended. The science lead was kept abreast of everything."

Top tips

- Be purposeful from the beginning
- Ensure it's not just another meeting
- Create things to do back at school and reasons to turn up next time
- Ensure contributions and ideas are valued
- Set up challenging but not intimidating
- Secure backing from senior management team - it is the school that signs up not just the SSL

STAGES OF THE PSTT CLUSTER PROGRAMME (GROWTH AND DEVELOPMENT)

Application to PSTT Cluster Panel

Acceptance preparation and support to set up cluster

Year 1
initiating and
establishing
the group

Year 2-4 developing and maturing Year 4 & 5 transition to independence Post
Programme
suistainable
and selfrunning

MOVING FORWARD, YOUR CLUSTER COULD CONSIDER:

- Expect change and, when possible, plan for it. Whether it be SSLs, headteachers, circumstances or shared goals, change is a feature common to all clusters. In fact, helping to cope with it is a key strength and there are benefits in working as collaborative, supportive groups.
- Involve the headteachers, senior management team and governors as much as possible. It really works.
- **Spend** the money that is available. Schools should be prompt in invoicing the lead school and Clusters should actively seek all opportunities to allocate and spend their funding.
- Maximise the Cluster's influence. Whether it be increasing the impact of the group upon your own member schools or extending your influence in the community and locality, successful Clusters are ambitious and work strategically.
- **Create** your own identity. We strive to apply the programme with flexibility. A Coordinator's own style and qualities are valued, and a Cluster's individuality is encouraged.
- **Celebrate** successes. It is always good to share these as widely as possible. Examples include, using schools' or Clusters' own newsletters, local press, school websites and social media.

TRANSITION TO FULL INDEPENDENCE

From the start and throughout the five years, there are benefits for all those involved in Clusters and completion of the Programme is, itself, an achievement. However, Clusters should keep an eye to the future and a life beyond official PSTT support and involvement. There are challenges in moving towards and achieving full independence; Clusters should aim and plan for this transition. (Transition is used in the context of 'moving from one good place to another good place.')

Example: 'A succession plan has been agreed and finances for Y5/6 have been put in place' (Cohort 2016). This included meetings with the headteachers and the lead school.

Example: '...to take on the running of the cluster with two strong Subject Leaders and a supportive headteacher' (Cohort 2017).

Example: Some clusters plan to add further schools. In others, schools are given the option and the cluster will proceed with those that choose to commit.

CONSIDER: WHAT ARE THE CHARACTERISTICS OF YOUR CLUSTER?

Identify your Cluster's

CONTEXT

CELEBRATE AND EMBRACE?

CAPABILITIES

CHALLENGE AND CHANGE?

ACCEPT AND APPLY?

3 EXAMPLES:

A Cluster is situated in an area where the children's experiences of science are/have been consistently limited, and the profile of science is low.

The group decide to challenge this by...

- Targeting this characteristic by developing science capital and celebrating science
- Searching for and developing links to people or organisations to enrich experiences and the curriculum
- Encouraging parental involvement and events that involve the whole school community

A Cluster has a high proportion of SSLs new to the role. They may be keen, however, they are not very confident and lack experience. Rather than press ahead with very ambitious plans, the coordinator and the group could...

- Initially, focus upon developing the role of the SSL for all schools in the Cluster
- Pair up more experienced SSLs with less experienced ones in a buddy system
- Work on parallel projects, some supporting the role of SSL and some using 'easily accessible' good quality resources with CPD alongside them

A Cluster experiences a widespread, particularly heavy school workload.

The decision is made to be realistic and adjust its aims to match its present capacity...

- Accepting that these will need to be simpler
- Sharing the Cluster workload, providing opportunities for distributive leadership and responsibility
- Looking for ways to 'double up' activities e.g. by linking science to literacy or maths

By design, Clusters and the Programme are meant to evolve and be constantly improving. Our intention is to develop and produce an agile model for collaborative groups in an explorative environment based upon our experiences and the data and information we produce together.

sharing & learning

excitement & exploration

discovery &delight

investigating &questioning

www.pstt.org.uk

The Primary Science Teaching Trust (formerly the AstraZeneca Science Teaching Trust) was fully endowed with a grant from AstraZeneca PLC Congratulations, together we have established a very successful PSTT Cluster Programme. By design, we have been ambitious, promoting individuality and innovation.

Through determination, 'patient tenacity' and no lack of ability, PSTT Fellows, together with the Science Subject Leaders, have built successful Clusters that benefit their schools and above all children, whilst providing much fulfilment and enjoyment.

'I have thoroughly enjoyed being the Cluster Coordinator and learning from the other science leads in the Cluster.'

'Thanks to my involvement with the PSTT and specifically the Cluster Programme I have been able to develop my career in ways I never thought possible.'

'I have really enjoyed working with a family of schools and it has enabled me to develop my role in primary science.'

Whatever stage your Cluster has reached, well done so far! May your future collaboration be rewarding and continue to be successful.

If you have any questions about clusters and the programme, would like to talk things through, or have any further suggestions, please do get in touch.

Peter Sainsbury
PSTT Cluster Director
Primary Science Teaching Trust,

Contact: peter.sainsbury@pstt.org.uk

