School Engagement:

A review of learning from School Engagement Action Research (SEAR) in Perth and Kinross

Educational Psychology Service, April 2018

Table of Contents

Background 3
Overview of SEAR model 3
'Academic knowledge' about school engagement 4
The interactive nature of engagement 4
Motivation 4
Self-determination theory 5
Mindset 5
Table 1: Summary of Dweck's Fixed and Growth Mindset 6
Parental engagement 6
Typology of engagement 7
Reflections on 'academic knowledge' 7
Table 2: Summary of school based interventions 9
Measuring engagement: Tools to gather data about engagement and evaluate interventions 11
Evidence 2 Success (E2S) 11
Leuven Scale for Involvement (Laevers, 2008) 11
Pupil Engagement Observation Checklist (based on Leuven Scale) 12
Myself as a Learner Scale 13
Self-determination theory questionnaires 13
High School Survey of Student Engagement 13
Duckworth GRIT scale 13
What have we learned about intervening to promote engagement? 14
Practice-based evidence (context knowledge) 14
References 16
Appendix A: Summary of school projects 18
Appendix B: Further detail on some aspects discussed 25
Typology of Engagement – Breakdown of typologies: 25
Higher Order Questioning 25

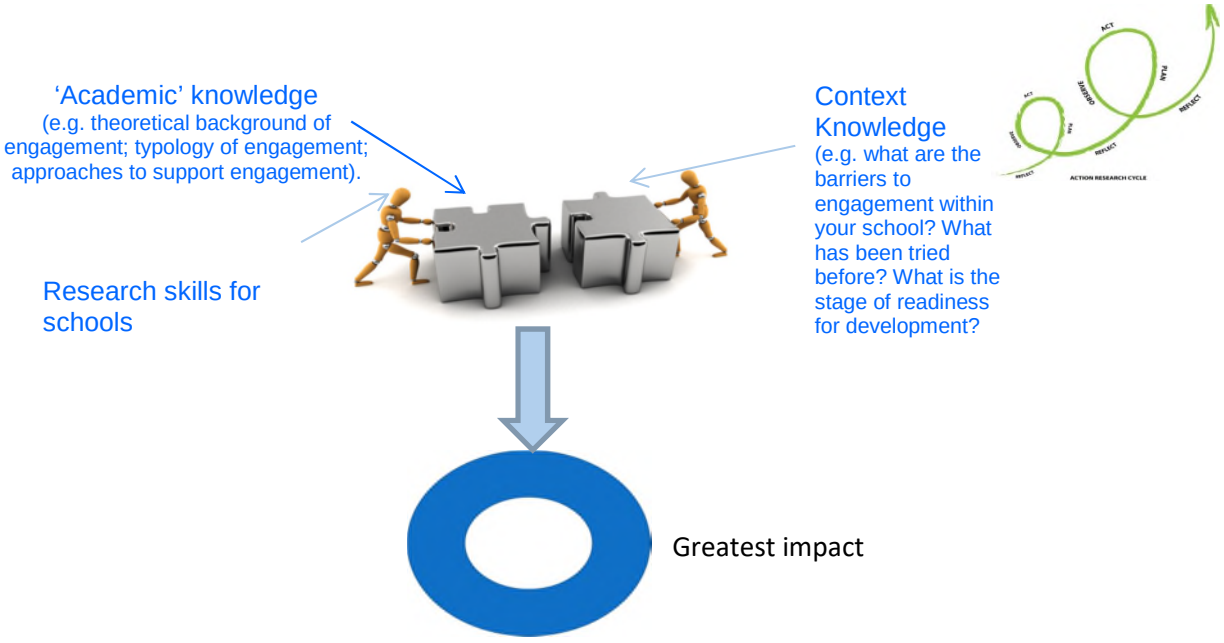
Background

Through academic sessions 2014-15 and 2015-16, the Educational Psychology Service (EPS) led and facilitated two year-long Action Research projects to help schools identify and address barriers to school engagement. This was a response to a priority identified in the Evidence 2 Success research. The projects were called SEAR (School Engagement Action Research).

The following aims to provide an overview of learning from both of these projects and learning since, including what was learned from the evidence base (academic knowledge) and practice-based evidence from work in schools (context knowledge). In doing so, we aim to disseminate learning as consumers and conductors of research.

Overview of SEAR model

The action research model was used to provide opportunity for academic and context knowledge to be considered together in order that most effective interventions could be planned and implemented. Figure 1 provides a visual representation of the rationale for using this model.



'Academic knowledge' about school engagement

Throughout SEAR, literature related to school engagement was explored, both by the EPS and by schools themselves. Of note at this stage, a consistent and agreed definition of school engagement was difficult to ascertain, as there is no common agreement in the research literature. As such, no one definition was used through SEAR, schools were continually supported to consider key aspects of 'school engagement' for the children in their school. The following provides a summary of key areas explored:

The interactive nature of engagement

Headden and McKay (2015) conducted a meta-analysis of engagement studies, in a paper called "Motivation Matters". According to this work, success in school is a multi-faceted concept, being affected by characteristics of the young person as well as the nature of the educational experience they receive.

For the young person, intellectual ability and content knowledge about a particular subject are mediated by other factors such as self-regulation, study skills, social and emotional skills (e.g. cooperation, respect, resilience), mindset and motivation. These characteristics interact with the educational experience, such as pedagogy and quality of teaching, and non-instructional aspects of the educational setting. Important non-instructional aspects include relationships, support to build perseverance and confidence, presence of feedback and sense of connectedness in school. In addition, meaningfully seeking pupil voice and quality of the physical school environment have been highlighted as having an impact on motivation and engagement. Furlong and Christenson (2008) echo the importance of this interaction between what the learner brings and their educational experience: "Engagement is not an attribute of the student but a state of being highly influenced by contextual factors".

Plans to improve engagement should be based on an analysis of the above factors in the current context, i.e. considering what the young people bring in terms of skills, abilities, attitudes and knowledge as well as how these interact with teaching of the curriculum, the social and emotional environment of the school, and the physical environment. Interventions may target several of the interconnected areas and should take into account what positive changes are within the school's circle of influence.

Motivation

Motivation is what starts, stops, directs and sustains behaviour, and influences how actively young people engage with learning and persevere in the face of difficulty. How much young people believe they can do the work being expected of them, their sense of control over the work and understanding of the value of the task all impact on motivation. Fishbein & Ajzen (1975) outlined these key components in their 'expectancy-value theory' which states that to engage with a task individuals must

value the outcome of the task as well as have an expectation that they can succeed, such that:

Expectation of success x Value of the goal = Motivation

These things are affected by the teaching they experience, their opportunities to interact with what is being taught, and wider life experiences. Similarly, when Dunleavy and Milton (2009) asked students about learning experiences that support engagement they identified: solve real problems, engage with knowledge that matters, make a difference in the world, be respected, see how subjects are interconnected, learn from and with each other, connect with experts and expertise and experience cognitive challenge (with the latter being considered especially important to those who found learning more challenging).

Schools often try to increase engagement through the use of rewards, but caution should be applied when considering any reward protocol. Some studies have shown that "providing incentives for inputs [e.g. reading books], not outputs [e.g. getting good grades, performing well on tests] can lead to increased achievement" (Fryer 2010, as cited in "Motivation Matters"); however, seeking rewards can disregard the value of the task itself and evidence demonstrates that when rewards become expected, motivation can be undermined, in particular the intrinsic motivation required for success in school and life. External rewards also have the potential to remove ownership and responsibility from the educator and their role in attuning themselves to the needs of the learner to make learning more meaningful and intrinsically motivating. For further reading about this, see Kohn (2018) and "Motivation Matters".

Self-determination theory

Self-determination theory (Deci & Ryan, 2012) proposes that pupils' perceptions and feelings about themselves are key to motivation and engagement and are strongly influenced by universal human needs for 1) Affiliation 2) Competence and 3) Autonomy. In this way, affiliation is the need to be accepted, connected to and cared for by others; competence is the need to feel confident and effective in one's actions and autonomy refers to the need to behave in a manner congruent with one's values and interests. Consideration was given by staff involved in SEAR to school systems, processes and relationships that might enhance or decrease self-determination.

Mindset

Carol Dweck's work on mindset relates to the beliefs we hold about our own and others' abilities in any area (e.g. academic, sporting, creative) and has implications for how children might engage with learning. According to Dweck (2007), people can be described as having a fixed mindset (i.e. a view that human abilities are innate and unchangeable) or a growth mindset (i.e. a view that people have potential for growth and development). Holding a fixed mindset can lead to avoidance of effort

and challenge for fear of failure as a form of self-protection and therefore, disengaged pupils may be motivated to avoid failure. In contrast, holding a growth mindset can result in seeking challenge, a recognition that effort and flexibility is required and that learning is an interactive process. The mindsets people hold can differ for different tasks and are influenced by factors such as teacher feedback and praise.

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Further risk to engagement for those with a fixed mindset is their comparison with others in judging their worth and who is 'the best'. If someone has a fixed view that they are not able in a certain curricular area, they may deliberately work below their potential as a method of self-protection. A similar risk exists for those who are continually told they are very clever, they may begin to avoid tasks that they do not think they can succeed in for fear of disrupting that view. If this is not challenged, the main goal can become to 'avoid looking stupid'- they achieve this by not putting in effort, by avoidance, by distraction- anything to take the attention away from feeling judgement of being incompetent. If not challenged, children's understanding of the nature of ability and how competent they are can become more and more entrenched. Table 1 outlines a summary of fixed and growth mindsets.

Table 1: Summary of Dweck's Fixed and Growth Mindset

Fixed	Growth
look smart at all costs (and never look stupid)	goal is to learn, not to look smart
it should come naturally (effort is a bad thing)	work hard- effort is the key
It's about me (how I judge myself and how others judge me)	it's not about me, it's about learning
Resulting in learners who: Avoid challenge, run from difficulty, avoid or gloss over mistakes	Resulting in learners who: Seek out challenge, engage deeply, learn from mistakes and improve

Parental engagement

The relationship between parental engagement and pupil engagement appears to be complex and replicable evidence-based interventions to support parental engagement are relatively limited. The Education Endowment Foundation is currently funding several projects to gather more robust evidence about "what works" in this area (see https://educationendowmentfoundation.org.uk/ for more information).

It is a common misconception that improvements in parental attendance at school events or parent contact with school lead to improved engagement of their children. It is now well established that these indicators *do not* in themselves impact on pupil

engagement but rather parental engagement with their children's learning that seems most important. Desforges, C. & Abouchaar, A (cited in Department for Education and Skills, 2003) state that "at home, good parenting" has a significant positive effect on children's achievement and adjustment, that is, shaping children's self-concept as a learner and through setting high expectations. That said, the impact of parental involvement is mediated by characteristics of the young person themselves and actually weakens as children get older. Shute et al (2011) state that the strongest association between parental engagement and pupil achievement and engagement is found when parents encourage high aspirations and discuss school activities with their children. Fan & Williams (2010) report that the impact on intrinsic motivation is greatest when parents are given information about *how* to help at home, about their children's learning and how to give positive feedback, rather than their role being the surveillance of homework and imposing control. As noted by the Joseph Rowntree Foundation (2014) *"effective parental involvement programmes that have an impact on the attainment gap are those that focus on helping parents to use appropriate strategies to support their children's learning at home"*.

Typology of engagement

Taylor and Parsons (2011) note four 'Typologies of Engagement'. These are 1. Academic (e.g. time spent doing school work, credits accrued, time spent on homework) 2. Behavioural (attendance, active part in discussions, extracurricular involvement) 3. Cognitive (perceived relevance of school to future aspirations, interest in learning) and 4. Affective (sense of belonging and connection to teachers/peers). The literature outlines that effective interventions should consider influence across these areas, rather than just focusing on those aspects which are easiest to measure, e.g. behavioural.

Reflections on 'academic knowledge'

An 'engagement gap'?
Headden and McKay (2015) use the terminology "engagement gap", to describe noted differences in levels of engagement between ethnic groups as well as those from different socio-economic backgrounds. This has relevance to our Scottish context, where educators are charged with closing the "attainment gap".

***Question**: In our efforts to close the gap, should we be considering some of these broader engagement supports before, or alongside, implementing other 'evidence based' interventions?*

According to a poll by Gallup in 2013, children become less engaged as they move through the education system (cited in Headdon and McKay, 2015). Whereas 80% of early primary children described learning with a positive emotional tone and spoke about persevering in the face of challenges, by high school this had dropped to only 40%.

***Question**: Why do we see a drop-off in school engagement with age? Do fixed ideas about ability and pessimistic explanations of progress and failure start to crystallise? Given the reduction in school engagement with age, should this be a particular focus for secondary schools and if so, what can be done?*

Application of 'academic knowledge' about engagement within PKC schools

Through SEAR, schools engaged with the literature and applied it to understand and address the real barriers to pupil engagement within their contexts. Planning for sustainability and continued development beyond SEAR were important aspects of their interventions.

A range of interventions were implemented, including those with an established evidence base (e.g. Paired Reading) and those *informed by* an evidence base (e.g. teacher –student relationships, feedback). All schools focussed on some aspect of affective and/or cognitive engagement typologies (see Taylor and Parsons, 2011). In addition, other activity included non-instructional aspects of school; how children interact with their learning; learners' perceptions (including relevance); sense of belonging; relationships in school. The following provides an overview of the interventions implemented:

Primary schools

- Use of Higher Order Questioning to improve learners' experience.
- Paired Reading as a means to engage children in reading, raise attainment and improve attitudes to reading.
- Development of a staff working group – promoting wider staff understanding of engagement literature and school engagement issues, consulting with pupils.
- Implementation of the Learning Pit and pupil education about Growth Mindset
- Improving parental engagement through the FAST programme and Coupar Angus Counts.

Secondary schools

- Supporting learning through better relationships and enhanced knowledge about young people
- Relationships, fairness and engagement: Staff voice re implementing restorative approaches

A summary of each school project can be found in Appendix A and an overview in Table 2.

Table 2: Summary of school based interventions

Project Title	Academic knowledge	Evidence of Impact from literature	Types of engagement targeted	Principal areas targeted	Impact in context
Paired Reading as a means of engaging children in reading, raising attainment and improving attitudes to reading	Joseph Rowntree Foundation (2014) Topping (1999)	Peer tutoring +5 months/0.5	Academic Affective	Instruction/ teaching Relationships	Children reporting enjoyment of paired reading Improvement in pupil self-reports of their reading ability and enjoyment of reading. Children keen to continue Paired Reading Improvements in motivation to read through teacher observations.
Supporting learning through better relationships and enhanced knowledge about young people	Deci & Ryan (2012)	Teacher-student relationships 0.72	Affective	Connectedness Relationships Pupil voice Autonomy	Increase in young people reporting their house tutor knew them well Improvement in wider staff understanding of importance of positive pupil: staff relationships as a non-instructional support for engagement Personal support system redesigned
Relationships, fairness and engagement Staff voice re implementing restorative approaches	Hattie (2011) Restorative approaches literature	Teacher-student relationships 0.72	Affective	Relationships Connectedness Pupil voice	Greater staff confidence in using RA Merits and demerits to be tracked, also behaviour and effort grades Improvement in wider staff understanding of importance of positive pupil: staff relationships as a non-instructional support for engagement as well as student perceptions of fairness.
Staff working group on pupil engagement		Feedback +8 months/0.75	Affective Cognitive	Feedback Mindset Instruction/ teaching	Improvements in children's involvement in their learning experience. Children reported feeling more listened to with their opinions being acted upon.

				Relationships	Improvement in wider staff understanding of key elements to support engagement.
Use of metacognitive strategies to improve engagement – the Learning Pit and Growth Mindset	Nottingham (2018)	Feedback +8 months/0.75 Metacognition and self regulation +8 months/0.69	Cognitive Academic Affective	Mindset Feedback Perseverence Instruction/ teaching Self regulation/ metacogition	Improved pupil confidence to tackle new learning.
Improving parental engagement through the FAST programme and Coupar Angus Counts	Goodall & Montgomery (2013) Epstein & Sheldon (2006) Groves & Baumber (2008) Desforges & Abouchaar (cited in Department for Education and Skills, 2003)	Parental involvement +3 months	Academic Cognitive	Parental engagement with learning	Positive evaluations from parents in terms of encouragement to do homework with their child, building relationships with school staff and encouragement for parents to be creative with their children

Note about effect sizes. Those in months refer to amount of progress made over the course of the intervention, as described by the Education Endowment Foundation in the "Teaching and Learning Toolkit" (2018). Effect sizes in decimals are as described by John Hattie, where an effect size of 0.4 or more is above average for educational research. An effect-size of 1.0 is typically associated with advancing learners' achievement by one year.

Measuring engagement: Tools to gather data about engagement and evaluate interventions

Evidence 2 Success (E2S)

These were the questions which fed into the measure of engagement provided by the E2S surveys. These could be incorporated into school surveys.

- During the last 4 weeks how many whole days of school have you missed because you "skipped" or truanted?
- How often do you feel that the schoolwork you are assigned is meaningful and important?
- How interesting are most of your school subjects to you?
- How important do you think the things you are learning in school are going to be for your later life?
- Now, thinking back over the past year in school, how often did you…
    - Enjoy being in school?
    - Hate being in school?
    - Try to do your best work in school?

Leuven Scale for Involvement (Laevers, 2008)

Level	Well-being	Signals
1	Extremely low	Activity is simple, repetitive and passive. The child seems absent and displays no energy. They may stare into space or look around to see what others are doing.
2	Low	Frequently interrupted activity. The child will be engaged in the activity for some of the time they are observed, but there will be moments of non-activity when they will stare into space, or be distracted by what is going on around.
3	Moderate	Mainly continuous activity. The child is busy with the activity but at a fairly routine level and there are few signs of real involvement. They make some progress with what they are doing but don't show much energy and concentration and can be easily distracted.
4	High	Continuous activity with intense moments. They child's activity has intense moments and at all times they seem involved. They are not easily distracted.
5	Extremely high	The child shows continuous and intense activity revealing the greatest involvement. They are concentrated, creative, energetic and persistent throughout nearly all the observed period.

Pupil Engagement Observation Checklist (based on Leuven Scale)

This scale was developed through SEAR project by an EP coach and participant.

Concentration on task	No Concentration	
	Limited Concentration	
	Understanding routine but attention is superficial	
	Real concentration most of the time	
	Concentrating without interruption, absolutely focused.	
Activity	Aimless actions and not producing anything	
	Looks away during the activity, fiddles, daydreams	
	Not absorbed in the activity, activities are short lived.	
	Engaged in the activity without interruption	
	Feels strongly appealed by the activity	
Capabilities and Imagination	No signs of exploration and interest	
	Action only leads to limited results	
	Does not use capabilities to full extent and activity does not address imagination	
	Child feels challenged and capabilities and imagination to a certain extent are addressed.	
	Child constantly addresses all its capabilities: imagination and mental capacity are in top gear.	
Evidence of positive pupil-teacher relationship:		
Evidence of restorative approaches embedded in classroom practice:		
Other additional observations:		

Myself as a Learner Scale

http://www.teachingtimes.com/userfiles/file/MALS_LEAFLET_HH.pdf

Self-determination theory questionnaires – developed in America but could be adapted for use in Scottish schools http://selfdeterminationtheory.org/questionnaires/ (registration required but then can be downloaded free). Questionnaires include:

- The Problems in Schools Questionnaire
- The Learning Climate Questionnaire
- Academic Self-Regulation Questionnaire

High School Survey of Student Engagement

http://www.nais.org/Articles/Documents/NCGS%20Presentation-Jun2013.pdf

This is an American tool and may not be available in the UK; however, the link leads to a presentation reporting on survey outcomes and includes survey questions that schools may wish to use in their own context to measure engagement.

Duckworth GRIT scale

http://angeladuckworth.com/grit-scale/

Series of Signature Strengths Surveys available (once registered) at: https://www.authentichappiness.sas.upenn.edu/user/login?destination=node/463

What have we learned about intervening to promote engagement?

Practice-based evidence (context knowledge)

Supporting school staff through a practitioner enquiry process to intervene positively in student engagement in their schools, and to implement academic knowledge about engagement in a real world context has led to significant learning, as detailed below, which should be taken into account in future change efforts.

- **Engagement is difficult to measure**
  - Schools sourced and developed their own tools. When intervening to improve engagement, measurement needs to be well planned and as rigorous as possible. It is important to go beyond what can be easily measured, e.g. behavioural measures of engagement, and to consider what will be *meaningful*. The tools section in this paper should be helpful in this regard.
- **Making an impact on school engagement takes time**
  - Engagement is seen to be important due to its link to academic achievement and attainment. Noticing real and concrete change in engagement takes time and requires sustained intervention, beyond a single round of improvement planning. Measures should be in place to track the long term impact of efforts to improve school engagement.
- **Further evidence-based practice is required to support impact**
  - Areas with potential for the most impact, e.g. increasing parental engagement, can be less within schools' circle of influence and there is not yet a wide body of evidence-based practice to support efforts, although this is being addressed, e.g. by the Education Endowment Foundation.
- **A thorough, context-based needs analysis is key to impact on engagement**
  - "what works" evidence tends to be about characteristics of environments, an ethos and culture to promote engagement, rather than a package to be implemented, unless schools are targeting engagement in a particular curriculum area, e.g. reading
- **The impact of interventions to improve engagement in particular curricular areas does not necessarily generalise more widely. Effective intervention to improve engagement is likely to be multi-faceted**
  - For example paired reading leads to increased engagement with reading but it may not generalise to other areas. A change in pedagogy in one area is not enough to impact school engagement as a whole. Non-instructional aspects of the school environment also need to be considered.
- **Good school engagement underpins many other current educational priorities**
  - There is a link between engagement with school and other priorities schools are already working on, such as Rights Respecting Schools, Restorative Approaches, and now Closing the Attainment Gap through Pupil Equity Funding. Consideration of student engagement should form part of the needs

analysis process when considering improvements related to these areas and in raising attainment in general.

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Appendix A: Summary of school projects

School 1

Phase 1:

The needs analysis phase included analysing existing data from learning logs and E2S data, repeating some E2S questions with pupils, seeking pupil feedback from a focus group and seeking staff views through discussion.

Phase 2:

The focus of the intervention was to support teachers to use Higher Order Questions and questioning techniques. The intervention aims were to increase the frequency that teachers were using HOQ and prompting in-depth classroom dialogue and to increase the frequency that children were using the vocabulary required to ask their own questions.

The intervention included the PM working alongside other teachers to help them plan for the use of higher order questions and questioning techniques.

The intervention was evaluated through pre and post pupil MALS questionnaires (Myself As a Learner Scale), facilitation of a mixed stages TLC group and pre and post audio recordings and analysis of class lessons across 3 classes. Teachers were also asked to provide feedback via a questionnaire.

At the end of Phase 2, evaluation measures indicated an improvement in scores from the pre and post MALS questionnaires for P6 and P7, but not for P5. Teachers reported that they were more able to plan more evaluative, analytical and higher order questions and were giving more thought to questioning style which was reflected in the audio recordings of lessons. The audio recordings and teacher feedback also indicated that some children were beginning to use the vocabulary of HOQ themselves and that learners were being challenged more to encourage a deeper level of thinking. There was a sense that children were recognising that they were accountable within class and that they seemed more engaged with their learning.

The school are keen to continue a focus on HOQs, monitored by SMT, to extend on conversations and development activity around Blooms Taxonomy. They also plan to extend discussions with the pupils themselves.

School 2

Phase 1:

Needs analysis involved analysing E2S data, seeking staff views by analysing the Healthy Working Lives Questionnaire and data from the Wellbeing Champion and Resilience Programme. Pupil views were sought through conducting focus groups with P5-7 children.

Phase 2: Considering phase 1 data, contextual information and likely impact, the decision was taken to focus on improvements in parental engagement. The opportunity arose for

the school to take part in a community initiative called ‘Coupar Angus Counts’ and to work in partnership with Save the Children and the Coupar Angus Youth Activities Group to implement the FAST Project. The implementation of these initiatives was supported throughout phase 2.

Both initiatives were evaluated. The University of Middlesex provided evaluation support for FAST

and those results are yet to be shared. Feedback was taken at all parental and community events and a survey about engagement was also sent to a selection of parent/carers. Feedback on FAST indicated that parents and pupils thought the FAST events helped break down barriers between parents and the school and encouraged them (parents) to be creative with their children. In terms of the process, parents described it as being an enjoyable program which involved the whole family where they made new friends who they could “share things with”.

Feedback on ‘Coupar Angus Counts’ indicated that parents and children had positive experiences of being part of the initiative, that is held “super fun maths events” which allowed opportunities for children and parents to enjoy learning together, alongside teachers. There was also the sense that the events encouraged children and parents to do homework together. The FAST Project has since been featured in the current National Library of Scotland Year of Food and Drink Exhibition as an example of good practice.

To build on the positive relationships established between parents and the school, the school plan to offer extra-curricular activities for parents next year. They also intend to run FAST again.

School 3

Phase 1:

Needs analysis in phase 1 involved analysing existing data (E2S Results, learning and teaching monitoring), seeking pupil views on how they experience school through questionnaires to, and focus groups with, P6/7 pupils and seeking Senior Leadership Team views on practice across four senior classes.

Phase 2:

Phase 2 was undertaken by a replacement PM. Based on phase 1 data and new context knowledge from the PM (who was also the school head teacher), the focus of phase 2 was to support consistent and equitable engaging learning and teaching experiences across the four senior classes. The intervention implemented by the PM, was to establish a staff

working group for the teachers of those classes to provide ownership and create a platform for professional dialogue and understanding about engaged learning. The working group met on 6 occasions throughout phase 2. The PM led an initial discussion to identify how ‘disengagement’ could be defined and this was used as a baseline measure of staff understanding of the concept. The working group wanted to understand the pupils’ experiences of engaging learning more fully and developed pupil questionnaires which were issued to all pupils in those classes. Returns were analysed under themes of ‘enjoyment of learning’, ‘assessment for learning’ and ‘learning and teaching’ and highlighted that children did not always understand the function of making mistakes in their learning, did not always value input from their shoulder partner and that they did not put as much effort into school work that they did not enjoy. The working group took some specific action which included class discussion about the positive consequences of making mistakes, a change in shoulder partner pairings based on group levels to further ensure quality, usefulness and appropriateness of feedback and all teachers made a focussed effort to provide links to real life relevance for the learning in the class, ensuring reflection on skills for life, learning and work. The impact of these changes has yet to be formally evaluated, although anecdotal evidence indicates improved engagement. This could in part, be explained by a potential improvement in pupils’ sense of affiliation, having had their views sought and action taken as a result.

The next steps for the working group are to share their learning across wider school team, highlight the benefits of using data to inform practice and open up working group membership to other key staff. From here, further pupil feedback will be sought and the original staff understanding of disengaged learning will be revisited.

School 4

Phase 1:

Needs analysis involved initial discussion with staff to seek views on features of engaged learning and a series of focus group discussions with pupils from P2/3, P4/5, P5/6, P6/7. The focus of discussion with these pupils was to understand more about their perception of learning at school and involved them scaling learning activities in relation to how important they thought they were. The outcome of this activity was taken as a baseline measure of learning perception. Feedback suggested that pupils were engaged and interested in learning, that they were keen to talk about what they are learning and what is planned but that they only recognised ‘important learning’ as that which was outlined on their learning wall (Visible Curriculum) and was led by their class teacher in their classroom. The PM asked the same pupils to do the scaling activity again following some discussion and input with the PM about ‘good’ learning. The follow up activity demonstrated a clear shift in the scores that pupils assigned to different school opportunities and the value they placed on them for learning. Comments from pupils included: “When we talked about it we changed our minds a lot”, “The playground was at the bottom at the start, now it is 4th from the top!”, “Lunch was at the bottom and now it’s at the very top!”.

Phase 2:

The PM moved school and could not complete the project. The school have applied to be part of SEAR 2015-16 and the data from Phase 1 here has been passed to the new PM.

School 5

Current educational research (Hattie, Educational Endowment Foundation) demonstrates that young people are likely to make most progress in learning when:

- They are supported to be self-directed learners
- They have positive relationships with teachers who can help them set goals and increase their own expectations of their ability

Questionnaires and follow up focus group activities were undertaken with staff and pupils in Phase 1 to understand more about current relationships between the two. We identified that nearly one third of our young people did not feel that staff knew them well. Focus groups highlighted that pupil perceptions of staff not knowing them impacted on their sense of affiliation to the school. This was important as 'Affiliation' is one of the factors within Self Determination Theory and relates to engagement.

Our intervention in Phase 2 was for House Tutors and young people to co-create a new model of Personal Support Time as a means to deepen knowledge of pupils and enhance staff-pupil relationships. We worked with young people in the design to determine what they would identify as being 'known well' – what it would look, sound and feel like and what impact this might have on their experience of school and their learning. A small number of House Tutors and some of their Tutor Group members were involved. The model involved tutors following a short programme of enhanced dialogue focussed on getting to know these young people as individuals, their wellbeing and their learning. The results have been positive and have highlighted subjective pupil improvements in measures that tutors know them well, know about things that concern or worry them and know about their interests. Subjective scores related to how the tutor understands how they learn and how to help their learning remained the same pre and post, which may be a result of the main focus being on the former improvements at this initial stage.

The wider impact of being involved in this project is the richer context knowledge now available about how learners perceive their relationships with staff and what is important to them about that, as well as now having a Personal Support model specifically designed for the needs of this group within our school.

The work has provided a basis for wider scale implementation of the new model in all Personal Support Time classes, with ongoing evaluation and development of the model. Another longer term aim is to integrate the strategies that were successful here in generating pupil voice to support knowledge of pupil/teacher relationships in subject class settings.

Having this school context knowledge has helped bring together big 'agenda' items and reinforces the message that a focus on relationship development and knowledge of pupils

will help achieve our priorities of *Raising Attainment & Achievement, Closing the Gap, Developing Values, Personal Support, Embedding Restorative Approaches, Rights Respecting Schools.*

School 6

Title: Does pupil perception of fairness improve engagement? Can Restorative Approaches improve pupils' perceptions of fairness and engagement levels?

Within Phase 1, I established a small staff working group who worked through the needs analysis. We analysed data that already existed in the school, issued a pupil survey about engagement and facilitated discussion with wider staff about pupil engagement. The main barriers to engagement were perceived to be: the building, pupil-staff relationships (specifically how pupils perceived staff to be 'fair'), learning styles, choice, curriculum design and staffing.

Restorative Approaches (RA) had high priority within the school and given its aim to support pupil-staff relationships and with consideration to the Circle of Influence, we decided to collaborate with the RA group through Phase 2. In particular, we wanted to support staff understanding of the importance of PHS pupil perceptions of fairness in their relationships with staff and then to track the impact of staff development in this area on levels of engagement.

Through Phase 2, staff were given two RA training sessions with additional information about PHS pupil perceptions of fairness. After the first, they completed a questionnaire to discover what they felt their further training needs were within RA and supporting fairness. Pupils were also interviewed – in groups and as individuals – to find out about their experiences of the restorative approach and how staff could best demonstrate fairness. Pupils reported wanting to feel more listened to and having time to work at a pace that suited them.

Measures of impact on pupil perception of fairness were, by the end of SEAR project, gathered through staff interviews. Pupil feedback will also be gathered beyond SEAR and both will be used to inform next steps for RA implementation. Initial anecdotal pupil feedback indicates that RA when implemented well, does improve how pupils perceive how fair teachers are and how able they feel to access learning. Further quantitative data will be gathered next session.

Staff involved found this an effective model for research, and the school is now keen to use this model for more research projects and developments in the future.

School 7

The Evidence 2 Success data indicated a concerning level of self-reported school engagement; in addition to this, 56% of the school population falls within the ACORN 5 group and therefore Closing the Attainment Gap is a key area of focus. Letham Primary was particularly concerned about levels of engagement with reading. Consideration of existing information available and current interventions led to a particular focus on middle and upper stage classes. During the needs analysis phase, data was gathered from

parents and children about perceptions of engagement in reading. Reading attainment and attitudes towards reading were less positive than hoped for. Although parental engagement with school was seen as a barrier to children's engagement with reading, consideration of Covey's circles of influence led to a focus on school-based interventions. When the contextual data was brought together with academic knowledge about effective reading interventions, a decision was made to try Paired Reading as a means of promoting engagement with reading. The identified need at the end of phase 1 was to identify a sustainable methodology to raise attainment in reading and to improve attitudes to reading.

During Phase 2, Paired Reading was implemented in 4 classes, giving a sample of approximately 90 children. P6 and 7 tutors were paired with P3 and 4 tutees. Baseline data was gathered about attitudes to reading and reading comprehension levels. Reading comprehension levels were re-tested following the initial intervention period. Questionnaire data measuring impact of the intervention were also completed by tutors, tutees and teachers. Teachers reported increased motivation to read among their children, while children reported that they liked reading better. Relationships were also seen to have improved, while Paired Reading was happening, "there was a real buzz in the room".

School 8

Phase 1: Needs Analysis

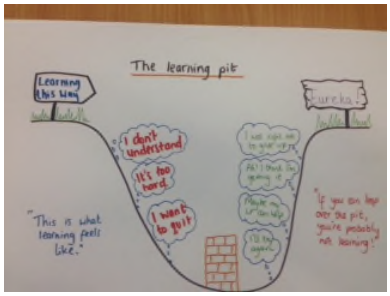
The needs analysis included existing data on 'engagement' from the E2S survey (2014) followed by detailed Pupil and Staff Questionnaires designed by the participant to explore engagement issues in more detail. The final analysis also included focussed follow-up pupil classroom observations. The needs analysis process concluded that 'engagement' was lowest when pupils were unsure of next steps in learning, lacked confidence, were uncertain of how to approach challenge and when there was a strong emotional response to mistakes.

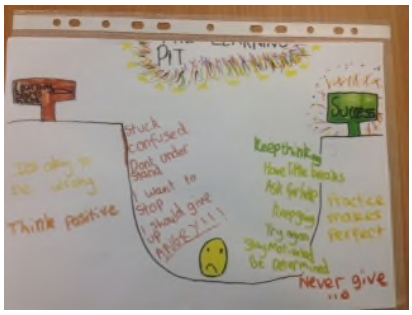
Phase 2: Intervention 'The Learning Pit' and Evaluation

The aim of the intervention was to increase children's understanding of the learning process, specifically to improve children's perseverance when faced with challenge, increase their range of strategies when learning is challenging and to enhance quality of conversations about learning. An approached called 'The Learning Pit' (Nottingham, 2018) was trialled and implemented. This approach draws on the work of Carol Dweck's 'Mindsets' and includes a visual support to promote challenge, inquiry and promote a growth mindset. To pilot this approach, P6 and P7 classes explored the questions of what makes a good learner and what to do if we make mistakes. Displays for the classrooms were created to show "The Learning Pit" - what learning can feel like when it's challenging and what strategies can be used to get out of the pit.

To evaluate the impact of the intervention pupils were screened pre/post with the 'Myself as a Learner' scale. The results showed a clear increase in the children's understanding of

how to approach new learning. The intention is to use the ‘Learning Pit’ concept across the school in the next session (2016-17).





Appendix B: Further detail on some aspects discussed

Typology of Engagement – Breakdown of typologies:

Academic

- *Amount of time spent doing school work/projects in school/at home*
- *Number of credits accrued*
- *Amount of homework completed*

Behavioural

- *Attendance*
- *Active part in discussions*
- *Involvement in extracurricular activities*

Cognitive

- *Perceived relevance of school to future aspirations, expressed via:*
    - *Interest in learning*
    - *Self regulation of performance*
    - *Goal setting*

Affective

- *Sense of belonging and connection to and support by parents/teachers/peers*

Higher Order Questioning

"In exercising the craft of good pedagogy a skilled educator must reach into learners' hidden levels of knowing and awareness in order to help them reach new levels of thinking through thoughtfully developed questions" Lesley Owen Wilson; The Second Principle.

'Bloom's Taxonomy' was developed in the 1950s by a man called Benjamin Bloom. The work provided a framework of cognitive skills and was later updated by a working group led by Anderson and Krathwohl. Their revision included comprehensive additions to how cognition intersects and acts upon different types and levels of knowledge, categorized as factual, conceptual, procedural and metacognitive cognitions. They built on Bloom's work and outlined the following steps as essential when learning: Remembering, Understanding, Applying, Analysing, Evaluating, Creating.

An outline of both taxonomies can be viewed at http://thesecondprinciple.com/teaching-essentials/beyond-bloom-cognitive-taxonomy-revised/

Lindley (1993) described five basic types of questions that all educators should master: 1. Factual 2. Convergent 3. Divergent 4. Evaluative and 5. Combinations. Further description of each below. Higher Order Questioning (HOQ) includes questions designed to promote student skills in applying, analysing, evaluating and creating their learning. HOQ would include Divergent, Evaluative and Combinations questioning.

Table 1: Lindley's Five Basic Types of Questions

Type of Question	Example
*1. **Factual*** *Soliciting reasonably simple, straight forward answers based on obvious facts or awareness. These are usually at the*	*Name the Shakespeare play about*

lowest level of cognitive (thinking) or affective (feeling) processes and answers are frequently either right or wrong.	*the Prince of Denmark?*
*2. **Convergent** – Answers to these types of questions are usually within a very finite range of acceptable accuracy. These may be at several different levels of cognition — comprehension, application, analysis, or ones where the answerer makes inferences or conjectures based on personal awareness, or on material read, presented or known. While these types of questions are valuable in exercising mid-level cognitive thinking skills, it is quite easy to expand students' cognitive processes even higher by adding another layer to these questions whereby teachers ask students to justify their answers in light of the evidence offered or the inferences made.*	*On reflecting over the entirety of the play Hamlet, what were the main reasons why Ophelia went mad? (This is not specifically stated in one direct statement in the text of Hamlet. Here the reader must make simple inferences as to why she committed suicide.)*
*3. **Divergent** – These questions allow students to explore different avenues and create many different variations and alternative answers or scenarios. Correctness may be based on logical projections, may be contextual, or arrived at through basic knowledge, conjecture, inference, projection, creation, intuition, or imagination. These types of questions often require students to analyze, evaluate, or synthesize a knowledge base and then project or predict different outcomes. Answering these types of questions may be aided by **higher levels of affective** thinking as well — such as valuing, organization, or characterization. Responses to these types of questions generally fall into a wide array of acceptability. Often correctness is determined subjectively based on the possibility or probability of the proposed answer. The intent of these types of questions is to stimulate imaginative, creative, or inventive thought, or investigate "cause and effect" relationships.*	*In the love relationship of Hamlet and Ophelia, what might have happened to their relationship and their lives if Hamlet had not been so obsessed with the revenge of his father's death?*
*4. **Evaluative** – These types of questions usually require sophisticated levels of cognitive and/or emotional (affective) judgment. In attempting to answer these types of questions, students may be combining multiple cognitive and/or affective processes or levels, frequently in comparative frameworks. Often an answer is analyzed at multiple levels and from different perspectives before the answerer arrives at newly synthesized information or conclusions.*	*a. How are the deaths of Ophelia and Juliet the same and yet different? (Compare and contrast.)* *b. What are the similarities and differences between Roman gladiatorial games and modern football?* *c. Why and how might the concept of Piagetian schema be related to the concepts presented in Jungian personality theory, and why might this be important to consider in teaching and learning?*
*5. **Combinations** – These are questions that blend any combination of the above.* *You can easily monitor what types of questions you are asking*	

your students through simple tallies and examining degrees of difficulty. Or, if your students are older, then ask them to monitor the types of questions you ask, allowing them to identify the types. For those of you who might be a bit more collaborative or adventurous in your teaching and want to give students some ownership in their educational processes, challenge them to create course related questions to ask one another. In my many years of teaching I was always pleasantly surprised at what students came up with.	