Applying nurture as a whole school approach

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Aims: *Applying Nurture as a Whole School Approach (ANWSA) (Education Scotland, 2016a), supports practitioners to evaluate the implementation of whole establishment nurture. Closing the poverty related attainment gap is a central aim of Scottish Government policy. Educational Psychologists (EPs) with their expertise in health, wellbeing and attainment are key to progressing this goal.*
Method: *This initiative took place in a primary school within Inverclyde authority utilising the change methodologies of Implementation Science (IS) and collaborative action research. Impact data regarding Nurture Principle 4 (NP4), 'Language is a vital means of communication', was gathered collaboratively using mixed methods to triangulate and synthesise findings.*
Findings: *Data highlighted that a focus should be place on: peer-to-peer classroom coaching regarding applied approaches to nurture, tracking outcomes from restorative meetings, an early years language acquisition programme and a systematic approach to emotion check-in. A fidelity structure was created based on the dissemination of the project in year one, which will increase the initiative transportability into similar contexts.*
Conclusion: *Preliminary results indicate the positive impact of nurture interventions on health and wellbeing. Long-term implementation plans include dissemination of all six nurture principles in the school over four years. Data will continue to be gathered linking the gains of the project on academic attainment and wellbeing via a chain of impact.*
Limitations: *Collaborative action research projects involve data being gathered throughout. Impact data synthesised is already showing positive gains in terms of wellbeing, attainment and effective pedagogy. Full implementation of this project will take 4 years; as such finalised data will be available in 2021.*
Key words: *Nurture; implementation science; raising attainment; action enquiry.*

Introduction

EDUCATIONAL PSYCHOLOGISTS are at the forefront of implementing key government policies through their skill sets in coaching, consultation, assessment, and intervention (Scottish Executive, 2001). They are responsible for contributing specifically to research into the effectiveness of whole school change making efforts to disseminate and translate research to academic communities and practitioners (Dunsmuir & Hardy, 2016). EPs strive to operate at the national level influencing policy and practice (HM Inspectorate of Education, 2011). In Scotland a major policy driver at the present time is social justice, which is evidenced in the Scottish Attainment Challenge (SAC). Nurture-based intervention is seen as a salient approach to supporting social justice. This study sets out to explore the role of nurture, at a whole establishment level, in addressing the challenges set by this agenda.

Context of nurturing approaches

In 2015 the Scottish Government launched the SAC aimed at closing the poverty-related attainment gap in Scottish schools (Scottish Government, 2017). It is accepted that a significant focus placed on health and wellbeing will support the achievement of this aim (Sosu & Ellis, 2014). Thus, it has been recognised that, *'Promoting physical and mental health in schools creates a virtuous circle reinforc-*

ing children's attainment and achievement that in turn improves their wellbeing, enabling children to thrive and achieve their full potential' (Brooks, 2013, p.8).

The Behaviour in Scottish Schools Report (Black et al., 2012) advances that *whole school* initiatives that reinforce a positive ethos with inclusive values are the most successful in terms of promoting positive pupil wellbeing. In this context, approaches that aim to promote nurture at a whole establishment level can be seen as having the potential to increase positive wellbeing and attainment for pupils (Education Scotland, 2016a).

Research into nurturing approaches began with the advancement of nurture groups in the 1970s (Bennathan, 1998). Such groups were established in primary schools in the Inner London Education Authority through the work of Marjorie Boxall (Rae, 2013). Their theoretical basis drew from John Bowlby's Theory of Attachment (1968), with their aim being to understand and help meet children's relational needs in order to maintain pupils within the mainstream context (Boxall, 2002). Today, nurture groups can be found within:

- Early years settings;
- Primary schools;
- Secondary schools;
- Additional needs establishments; and
- Alternative provisions.

(Bennathan et al., 2010; Stephen et al., 2014; Powys County Council, 2015).

Nurture groups now exist in over 1500 schools in the UK (The Nurture Group Network, 2015). In the context of primary school, a nurture group offers attachment based intervention focusing on meeting children's social and emotional development needs (Stephen et al., 2014), which are developed around the six guiding principles of nurture (Bennathan & Boxall, 2000);
1. *Learning is understood developmentally.*
2. *The classroom offers a safe base.*
3. *Nurture is important for the development of self-esteem (wellbeing).*

4. *Language is understood as a vital means of communication.*
5. *All behaviour is communication.*
6. *Transitions are significant in the lives of children. Guiding principles of nurture* (Bennathan & Boxall, 2000).

There has also been an increasing interest, over time, in upscaling the principles of nurture to the whole establishment level (Education Scotland, 2016a). To support this agenda, in 2016 Education Scotland created a draft version of the self-evaluation framework, *Applying Nurture as a Whole School Approach: A Framework to support the Self-Evaluation of Nurturing Approaches in Schools and Early Learning and Childcare Settings* (ANWSA). This document was supported by training delivered to staff across Scotland prior to publication.

ANWSA is based on key aspects of the Scottish education system, such as *How Good is Our School?* (4th ed.) (HGIOS4) (Education Scotland, 2015) and the National Improvement Framework for Education (NIF) (Education Scotland, 2016b). It is a national toolkit, which supports staff to engage in evidence-based self-evaluation, analysis and planning for implementation of whole establishment nurture (Education Scotland, 2017). Within the ANWSA document (2016a, p.13) a whole establishment nurturing approach recognises: *A focus on the school environment emphasises the balance between care and push which incorporates attunement, warmth and connection alongside structure, high expectations and academic press.* The authors recognise that operationally this means disseminating the nurture principles, normally seen in smaller settings, at a whole establishment level.

The six nurture principles (Bennathan & Boxall, 2000) are implicit through this account. Nationally, there is a recognition that nurture is viewed within a hierarchy of approaches aimed at helping address the development of children with significant emotional and behavioural needs (MacKay, 2015; as cited in Moran, 2015) (Figure 1).
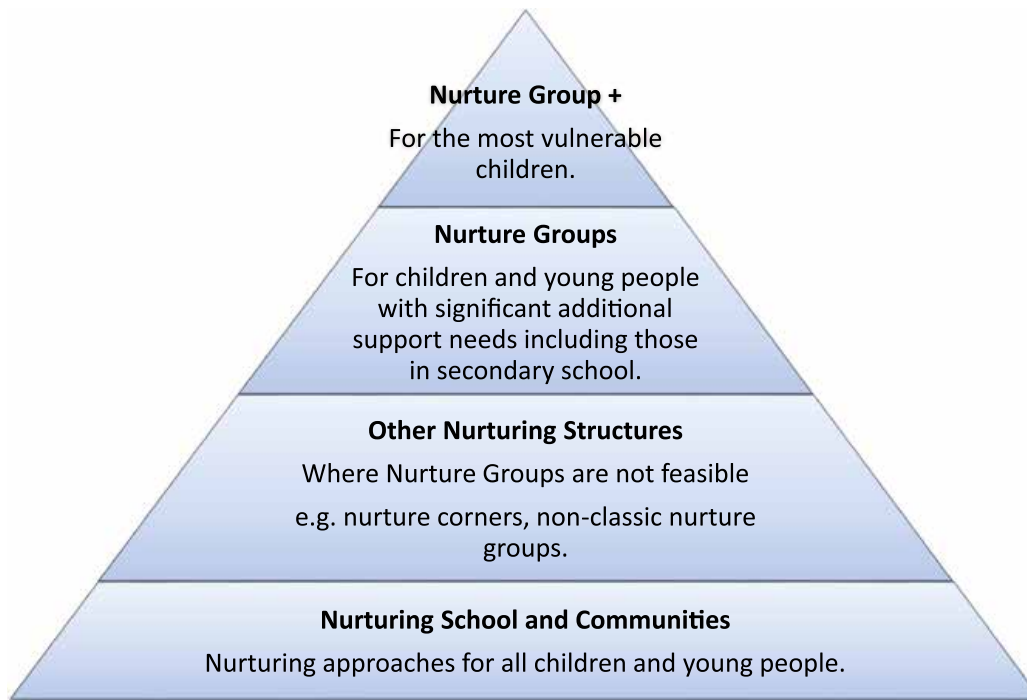
Figure 1: Continuum of nurture approaches (adapted from MacKay, 2015).

Impact of nurture

Research on the impact of nurture groups suggests they can increase pupil engagement (Bishop, 2008) and significantly reduce school exclusions and lower truancy (Cooper, 2011). Significant gains in academic attainment were depicted for pupils attending nurture groups, evaluated by their pre and post scores on baseline assessment (Reynolds et al., 2009; Seth-Smith et al., 2010). This was shown by a progress in metacognition skills (Gerrard, 2005) as well as language and literacy skills (Hosie, 2013). There is a dearth of evidence however indicating that the application of nurturing approaches from the group to the establishment level has similar positive effects (MacKay, 2015). Research focusing on this area highlights the following:

- Doyle (2004) found that a social development curriculum created to support children's transition from a nurture room to mainstream classes had some positive impacts. For example, children felt more fully included in activities in the mainstream classroom.
- Lucas (1999, p.14.) highlighted that when the principles inherent in the nurture group approach are applied in

mainstream classrooms 'a positive cycle of growth and development is set in motion'.

- Positive attachment - based dyadic relationships (between pupils and teachers) led to improved school attendance, which impacted on attainment (Marcus & Sanders-Reio, 2001).
- Colwell and O'Connor (2003) postulate that the successful verbal and non-verbal communications teachers display in nurture groups could be upscaled to the whole school level, supporting a whole school nurturing approach.

Furthermore, Reynolds, MacKay and Kearney (2009) state that there is a need to gather impact at the systemic level regarding the possible benefits of instilling the nurture group principles into regular mainstream classes.

In order to provide a structure for evidencing impact, a range of nurture self-evaluation frameworks have evolved to support a whole-establishment approach. These include the *Somerset Nurturing School Improvement Process* (Somerset County Council, 2003) and *How Nurturing is Our School?*

(Glasgow Educational Psychology Service, 2011). Published research evidencing the impact of such frameworks has however been lacking within the literature. Exploration of Education Scotland's contemporary whole-establishment self-evaluation framework, ANWSA (2016a), founded on evidence-based research, is currently warranted in order to evaluate initiative impact, implementation fidelity and transportability. Central to ANWSA is the *National Improvement Framework for Education* drivers (Education Scotland, 2016b).

Action enquiry

Action enquiry is a common research methodology used in education to support implementation of the NIF and meet National Priorities (Darling-Hammond et al., 2011, p.344). The cyclical stages of CAR are as follows.

Using this methodology, change is considered as a process, not an event (Fullan, 2007). Educational Psychologists have a key part to play within this process as they exhibit specific skills in research, coaching and consultation (Scottish Executive, 2001), which can facilitate collaborative school improvement. HGIOS 4 and ANWSA offers a rationale and depiction of the trian-

Figure 2: Cycles of Collaborative action research – adapted from the Dundee Educational Psychology Service model of collaborative action research (2016).

gulation process for practitioners undertaking school improvement (Figure 3).

Implementation science

Another key aspect of evaluating change within establishments is consideration of how a project is implemented. Education Scotland has promoted the use of IS to ensure that the upscaling of whole-school nurture becomes embedded. This involves using skills and methods to promote the systematic uptake of research findings and evidence-based initiatives, hence, improving quality and effectiveness of how change is deployed and sustained (Eccles & Mittman, 2006). Throughout the ANWSA materials, Education Scotland offers an adapted version of the Fixsen et al. (2009) IS core components (see Figure 4). Effective implementation is maximised when purveyors of change adhere to the core components as specified (Fixsen et al., 2009).

Whilst the stages ensure implementation success, in practice the execution of these key stages is often lacking (Meyers & Durlack, 2012). With their knowledge of IS and evidence-base practice, educational psychologists can support the foundation stages of implementing educational initiatives within establishments.

When ensuring the implementation sustainability of an educational initiative, another key factor is implementation *fidelity*, that is, the extent to which interventions are implemented as intended (Dane & Scheider 1998, as cited in Kelly & Perkins, 2012). Indeed, research highlights that evaluations largely result in successful outcomes when the initiative is implemented with high fidelity (Gottfredson et al., 1993, as cited in Blasé et al., 2012). Dane and Shneider (1998) considered four primary components to ensuring greater programme fidelity (Kelly & Perkins, 2012) (Table 1).

Whereas the ANWSA document is based upon evidence-based research (Education Scotland, 2016a, p.11), implementation fidelity of the new framework had not yet been established at the time of publication.

Stephanie McNicol & Laurence Reilly

Schools collect a wide range of quantitative data for example about attainment, attendance, bullying and prejudice-based discrimination and option choices. Effective self-evaluation includes rigorous interrogation of this data by staff who are data-literate and use the data to recognise emerging issues and when specific interventions are necessary.

QUANTITATIVE DATA

PEOPLE'S VIEWS

Staff, pupils, parents/carers, partners and other stakeholders such as the local authority or governing body should all have regular opportunities to share their views about the school. Examples of how people's views can be gathered include through surveys, focus groups, ongoing professional dialogue, learning visits and minutes of team meetings.

EVALUATION OF QUALITY

DIRECT OBSERVATION
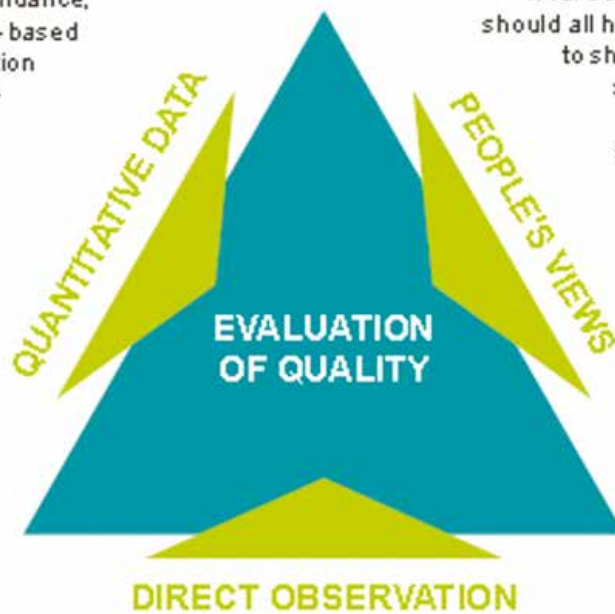
Direct observations of practice can take place in a range of learning contexts including during learning which takes place outdoors, in a workplace, at college and during excursions and residential experiences. Observations should be linked to agreed criteria and a shared understanding of their purpose. All stakeholders including staff, learners, parents and partners can engage in these structured observations and give feedback to support self-evaluation.

Figure 3: HGIOS4 – Triangulation and moderation of assessment (Education Scotland 2015, p.11).

4) Full Implementation

Making it natural

1) Exploration & Adoption

Getting ready for change

2) Installation

- Capturing hearts and minds

3) Initial Implementation

Getting the ball rolling

Figure 4: Adapted Fixsen et al. (2009) IS Core Components advanced during Education Scotland Whole School Nurture training.

Hence, a key rationale for the current study is to embed the initiative using the Fixsen et al. (2009) adapted core components for effective implementation and measuring fidelity via the Dane and Schneider (1998) framework. EP knowledge of IS provides one way of raising the profile of the profession as this allows policy to be transported into real world settings with success.

The following project was undertaken in a primary school, situated within the Inverclyde Local Authority in Scotland. Inverclyde was identified as one of the seven initial local authorities to undertake the SAC in light of its level of need. Within the local authority nine of the 20 primary establishments have been targeted, based on need and the focus school is one of these. The roll of the school, including those children in the nursery class as of June 2017, was 313. Analysis

Table 1: Framework for ensuring programme fidelity (Dane & Schneider, 1998).

Component	Description
1 Adherence	The extent to which the intervention is being delivered as it was designed, with all core aspects being delivered to the intended population; staff trained appropriately, using the right protocols, techniques and materials and in the contexts prescribed.
2 Exposure	Involves the number, length or frequency of sessions of a programme or intervention delivered.
3 Quality	The manner in which a teacher, staff member, parent or other delivers an intervention in terms of the techniques, skill and method required and in terms of enthusiasm, preparedness and attitude.
4 Participant responsiveness	The extent to which participants are engaged by and involved in the activities and content of the intervention or programme.

of data derived from sources held by Inverclyde Education Authority and the Scottish Government (Children's social Work Statistics, 2015) led to the following demographic profile:

- The free meal entitlement (FME) statistics of the school, Inverclyde Council and Scotland are respectively: 28 per cent, 27 per cent and 21.6 per cent.
- The percentage of pupils who live within a SIMD decile of 1 and 2 (i.e. indicative of the greatest levels of need) for the school and Inverclyde Council are respectively: 58 per cent and 45 per cent.
- The percentage of Looked After Children (LAC) in the school, Inverclyde authority and Scotland are respectively: 4 per cent, 1.4 per cent, 1.5 per cent

The above data set indicates that there is a significant level of need in the focus school. This would justify its inclusion of a target school for the SAC in Inverclyde. Research makes a clear link between deprivation and attainment and it also recommends the use of nurture-based approaches as one way to intervene positively in helping ameliorate the impact of poverty of a child's performance in school (Sosu & Ellis, 2014).

The focus school established a nurture group in March 2017 with funding from the SAC. This can also be cited as having the potential to be positive in the roll-out of whole school nurture on a more general basis as evidence indicates that nurture groups can support whole school nurture projects (Lucas, 1999). The following project aim was two-fold; to provide evidence that the ANWSA document impacts positively on health, wellbeing and attainment and to provide a fidelity structure for future transportability of the resource into similar contexts.

To ensure project success the skillset of the EP becomes salient. This involves project leadership that is based on the principles of implementation science, knowledge of evidence base and measurement and the ability to lead partners, such as Speech and Language Therapy and teachers through change.
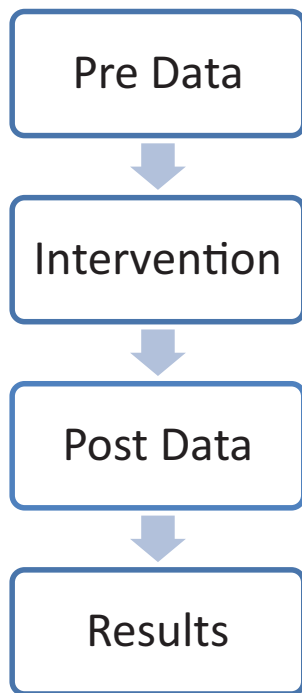
Methodology
Cycle of continuous improvement
Contemporary approaches to school improvement, as highlighted within HGIOS 4 and aligned to a practitioner enquiry methodology are that of a continual cyclical process of self-improvement. Such a process (b in Figure 5) involves the following key components, in contrast to the traditional, linear approach outlined in (a):

Recruitment and selection
A key component of IS involves testing innovation in environments that provide an optimal context for change. The primary was

a) Traditional linear self-evaluation b) Cycle of Continual Self-Evaluation/ improvement
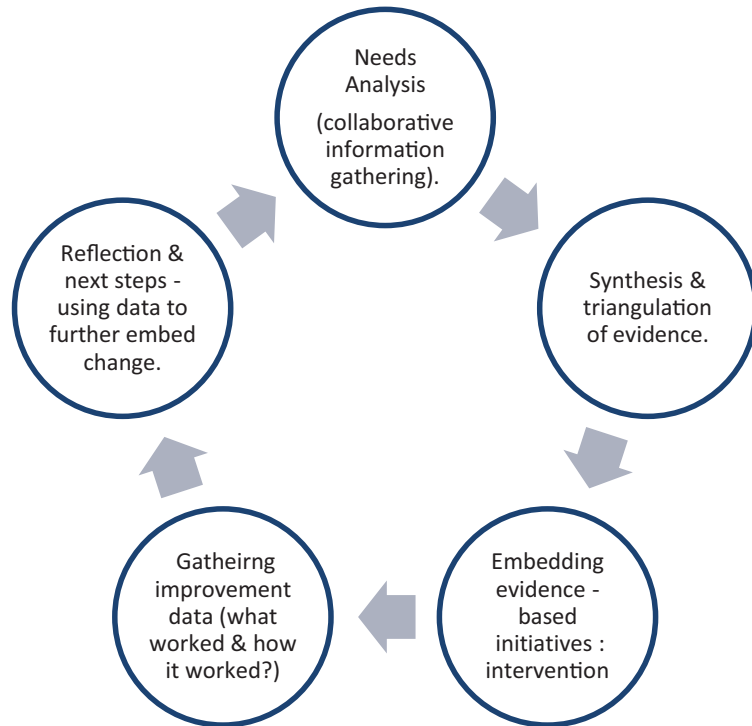

Figure 5: Two methods of self–evaluation: (a) traditional linear and (b) contemporary cyclical.

considered within this category as it had a strong track record in adopting change both in its processes and practices.

It is a large primary school within Inverclyde Council that was established as a result of a merger of two smaller primary schools in 2012. It had no prior history in using nurture evaluation frameworks, however it had embedded Restorative Approaches as a key approach to health and wellbeing. The school intake consists of pupils from age 3 to 12; as such it operates an early year's classroom. As a SAC school in Inverclyde, it is working towards embedding the Five to Thrive model (Kate Cairns Associates, 2017), which is an attachment-based approach to support professionals working with children who may face challenges with emotional regulation.

Fixsen Stage 1: Exploration and adoption
Embedding the project in the establishment improvement plan allowed it to become

a priority. Implementation fidelity was evaluated throughout, with the key components being cross referenced with the Dane and Schnider (1998) Implementation Fidelity structure (Table 2 in Appendix 1). An Implementation Team was established to coordinate and drive change ensuring adherence to the core components of IS. This team consisted of establishment SMT, a Nurture Coaching and Modelling Officer[1] (CMO), three members of Inverclyde Educational Psychology Service, a Speech and Language Therapist and a SAC Research Assistant.

A questionnaire was devised to gauge the knowledge, understanding and confidence levels of key members of the IT with regard to change methodologies (i.e. IS and collaborative action research). The questionnaire included items such as, '*What kind of evidence would you gather when undertaking collaborative action research?*' and a one to 10 Likert scale asking staff to rate their confi-

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[1]   With strategic lead for nurture development in Inverclyde Council.

dence levels in using both IS and collaborative action research. The questionnaire was distributed before and after an awareness raising session delivered by the two EPs regarding these methods.

The EPs also examined the 'readiness' levels of key staff on the IT at this early stage by administering the ANWSA Readiness Questionnaire (Appendix 1a in ANWSA). Readiness assessment ensures change leaders are able to identify gaps that may exist between their expectations about the change initiative and those of other members. If significant gaps are observed and no action taken to close those gaps, resistance would be expected, and therefore the change process would be threatened (Holt et al., 2007). This was administered to the IT as a semi-structured interview. It was anticipated that an open dialogue with staff would elicit meaningful information, with the EPs further prompting and scaffolding staff to elaborate and provide further detail regarding their perceived readiness to uptake the initiative.

Through an initial examination of need, derived both from the existing school quality improvement processes and demographic data, it was negotiated that a focus on NP4 *Language is a vital means of communication* for the first year of the project. This would allow a more focussed approach to be undertaken. It has been noted in research for a considerable period of time that there is a correlation linking language with social deprivation, which can impact negatively on outcomes in literacy, numeracy and health and wellbeing (Bishop & Adams, 1990). Through examination of those aspects related to NP4, three themes became salient – attunement, restorative approaches and language acquisition.

A wide range of mixed-method data was collated by the implementation team, using a critical realist (Kelly & Perkins, 2012) approach. The data was gathered from a number of sources at differing levels, that is, child, staff, parents, education authority and Speech and Language Therapy. An ecological perspective maintains that the individual is constantly engaging in a complex interac-tion with the systems in which it exists (Bronfenbrenner, 1979). Triangulation of the data sources highlighted in Figure 6 took place.

Fixsen stage 2: Installation

An initial awareness raising session regarding the project, was undertaken by the IT with all school staff ($N = 54$). This session drew heavily on materials from ANWSA and centred on:
- project rationale;
- the six nurture principles;
- attachment informed practice;
- NP4;
- next steps regarding the first stage of embedding the project.

During this session, the staff also completed an adapted whole school nurture questionnaire (Appendix 4a in ANWSA – section on NP4) and a group based self-evaluation exercise. This exercise involved staff reflecting on the key aspects from the ANWSA relating to NP 4 (example within Table 2 below). The discussion included a focus on features of highly-effective practice, challenge questions and how these relate to the strengths and areas for development within the school.

Whilst the training session provided needs analysis data and was an effective taster for all staff members, the IT recognised that training proves ineffective when used as a stand-alone strategy for adult learners (Stokes & Baer, 1977). A training coupled with coaching model, however, can effectively enhance attendee's skills and abilities and improve implementation and subsequent outcomes for young people (Blasé et al., 2012, as cited in Perkins et al., 2012). The self-evaluation exercise revealed staff felt further attunement development would be beneficial, with staff feedback including:
- *'All staff throughout school should reflect upon their communication skills.'*
- *'We were unaware of attunement until this nurture in-service input.'*
- *'We are currently not providing a consistent experience with regards to attunement.'*

QUANTITATIVE:
- Pupil Statistics: looked after children, children with English as an additional language, social and emotional needs, free school meal entitlement, attendance.
  - Scottish Index of Multiple Deprivation data.
- Speech and Language data.
  - Attainment data.
  - Staff knowledge of Nurture Principles

VIEWS:
- Readiness Questionnaire
  - Staff Questionnaire
  - Pupil Focus Groups
  - Staff self-evaluation
- Highly effective practice and Challenge questions from ANWSA
- Attunement questionnaire
- Quality Improvement Review
  - Implementation Group
  - Action Research and Implementation Science. Questionnaire
- Semi-structured interview with Speech & Language

DIRECT OBSERVATIONS:
- Class Nurture Observation (peer to peer)
- Attunement Observation (peer to peer)
  - Quality Improvement Review
  - Educational Psychologist - class observations
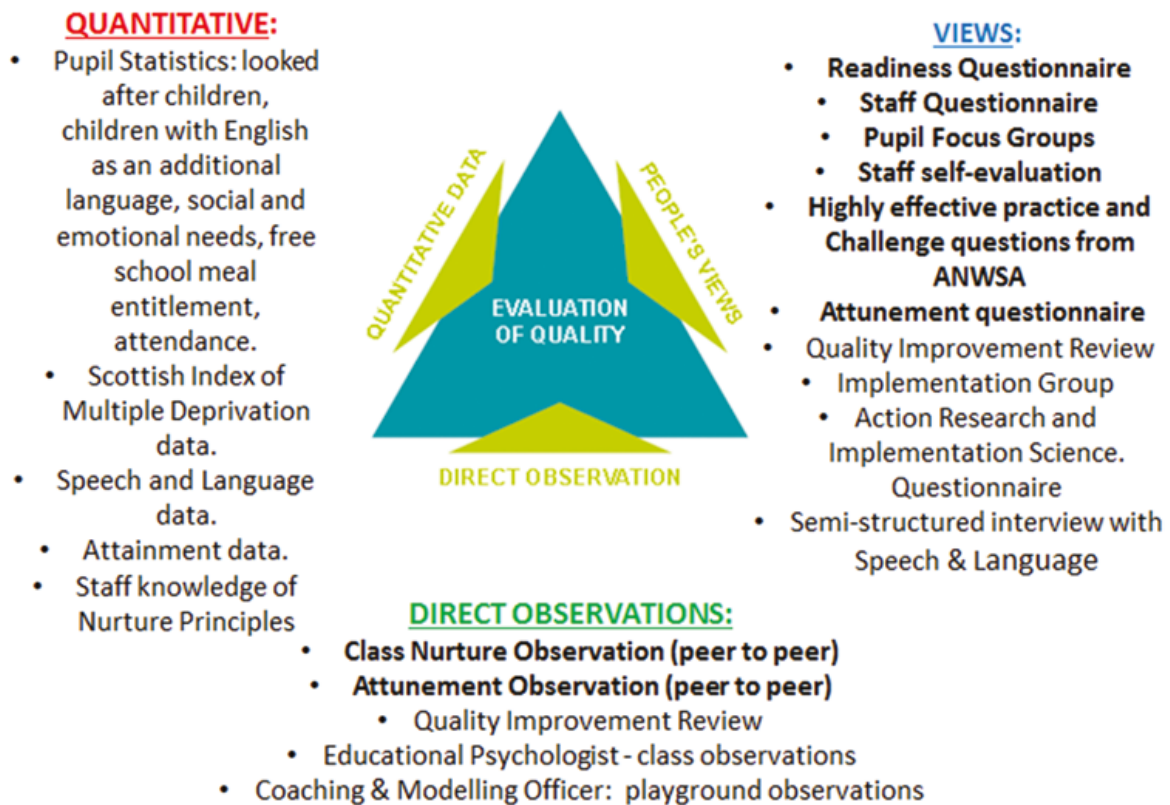 - Coaching & Modelling Officer: playground observations

Figure 6: Key measures collected in collaboration with stakeholders during the needs analysis stage (bold refers to aspects taken from the ANWSA but adapted by the authors).

Table 2: Example of Learning, Teaching and Assessment quality indicators, extracted from ANWSA.

2.3 Learning, Teaching and Assessment	
Features of highly–effective practice	**Challenge questions**
Staff are aware or both their verbal and non-verbal communication in their interactions with children and young people. They also notice children and young people's verbal and non-verbal interactions and attune to these appropriately. (NP4)	• To what extent do staff regularly take note of how their verbal and non-verbal communications could be impacting on children and young people? • Are staff attuned to how different children and young people may respond to their verbal and non-verbal communication? • Do staff get to know children and young people well so that they are able to read what their non-verbal communication might be telling them, even when a child and young person is finding it difficult to communicate this?

As such, the team organised a follow-up interactive coaching session regarding attunement to be undertaken with a group of nine staff members. They were chosen using a goodness of fit model, that is, those who are motivated and viewed as leaders of change are more effective in ensuring project uptake (Rogers, 1995). This cohort had previously expressed an interest in attunement and were highlighted as displaying leadership skills by school SMT. The interactive coaching session included feedback on pupil perceptions of staff attunement alongside real-world practice-use of the Education Scotland attunement profile (Appendix 2, Education Scotland 2016a).

The IT understood the importance of gaining the pupil perspective, in their role as key stakeholders. As such it was agreed that the link EPs facilitate two focus groups with eight pupils each (total *N* = 16) using a randomised sample within the age range from 9 to 12. The group included approximately a third of pupils who had additional support for learning needs, with consent gained from parents/carers. The data was collected via audio recording and later transcribed by the SAC Research Assistant. The data was then coded and categorised using a thematic analysis (Braun & Clarke, 2006). Key themes and patterns were then triangulated with the body of data collected. A significant finding from the focus group alongside feedback from staff indicated that, whilst pupils were familiar with the restorative meeting format, they often did not follow-up on the outcomes of these meetings.

The initial awareness raising session also focused on language acquisition. Evidence gathered relating to the school performance in this area included: the self-evaluation exercise, follow-up pupil focus group feedback and the collation of Speech and Language Therapy data. Information gathered suggested that the school would benefit from awareness regarding language acquisition and gaining insight into assessment and intervention approaches in this area.

Results

By using an action enquiry model, evaluation was conducted within a cyclical process of change. A range of mixed-method data was gathered regarding NP4 (Figure 6) in relation to attunement, language acquisition and restorative approaches. The Implementation Team analysed the data on an ongoing basis by conducting thematic analysis and taking percentage and frequency counts. This highlighted dominant themes for development. To ensure validity these themes were discussed by the IT in a collaborative manner allowing for consistency and for next steps to be drawn up – echoing the action enquiry methodology. The summary of this process linking the NP4 areas to data gathered and key themes extrapolated can be found in (Table 4 in Appendix 2).

Fixsen stage 3: Initial Implementation
Implementation science and collaborative action research

A questionnaire was issued to members of the IT relating to their knowledge and confidence regarding change methodologies. This revealed:

- Staff offered more detailed and accurate accounts of what IS and collaborative action research were in the post-questionnaire than the pre-questionnaire. One participant also linked AR with IS in their post-test answer, which showed that they were beginning to make the links between the differing processes/frameworks and thinking about research in wider terms.
- Staff numerical values circled in the Likert scale questions highlighted they felt more confident regarding carrying out both collaborative action research and IS after the awareness raising session.

In the post-questionnaire, comments signified that the EPs had increased capacity positively, for example, *'The Educational Psychology team was able to upskill knowledge about the process of collaborative action research and Implementation Science. They shared a rich background*

regarding aspects of training staff on principles of nurture. The IS framework was useful to explore, it was great to look at the project strategically. Also, that the *"Educational Psychologists have helped me understand the links between HGIOS and the nurture framework challenge questions. I feel I have knowledge today in my understanding of implementation."'*

Readiness questionnaire
Results highlighted potential strengths and gaps in the project roll-out. Such gaps included the necessity to link the development more explicitly with the establishment's early years remit, alongside more planned opportunities to staff to share/observe each other's practice. More actively involving parents in the initiative was also a key theme highlighted. Suggestions for involving parents included linking with professionals such as the Family Support Worker.

Attunement
Analysis of data revealed there were large inconsistencies in staff understanding and practice regarding attunement. Staff highlighted that they all incorporated welcome routines in their class, however these routines varied greatly. Examples offered included: emotion check-in and using the child's name in the morning whilst saying 'good morning' and 'show and tell'. There was, however, a lack of consistency regarding how the welcome routines could be linked to success criteria. Whilst staff felt they had informal opportunities to discuss learner's communication they were not basing their discussions on observations, and there was little formal opportunity for peer-to-peer coaching or using an evidence-based framework to discuss their practice. The school did not offer a programme of 'check-in' that varied in complexity from year to year. Furthermore, discussions did not reveal what follow-up work or evaluation may take place regarding 'making sense of learners' communication'.

In consideration of this performance data, the IT negotiated further development focused on attunement and emotion 'check-in'. After the interactive session run by the EPs, centred on attunement, the nine early adopter staff were organised into pairings, with whom they felt comfortable sharing practice (one staff member was paired twice). The staff were requested to use the attunement observation profile (Appendix 2 in ANWSA), which they had received coaching on during the interactive session. The observation could focus on attunement in a range of contexts, for example, a classroom lesson, a restorative meeting, communication with a child with additional needs, etc. The staff were asked to report three strengths and one area for development of their partner and discuss these in a solution orientated manner after observation. This will be revisited at three points throughout the year to signify progress and impact.

With regard to emotion 'check-in', the EPs organised for the school depute and an early adopter class teacher to visit a neighbouring primary. This school had been recognised by Education Scotland for its excellence in promoting the health and wellbeing curriculum. The planned visit included observing the emotion 'check-in' at differing stages, discussion regarding the success criteria and consideration of plans to disseminate this process within the project school.

Restorative
Data revealed that whilst most staff facilitated restorative meetings well, and that experience of this process was a generally a positive one, the outcomes of these meetings were often not followed up by participants. Statements of impact from the pupil focus groups include:
- *C1. 'Well, I had a restorative chat with two of my friends. Couple of weeks ago and we've kind of stuck by it, but kind of not.'*
- *C2. 'Well after we have a restorative meeting… well some people in our class, just go 'Oh, I don't care'* (about following up on the actions).

In keeping with the cyclical evaluation approach adopted for project dissemination, an early adopter staff member was tasked with developing a method for children to record the outcomes of restora-

tive meetings in writing. These will consequently be subject to review by the pupils around one week from the meeting during which success in meeting outcomes will be measured interactively using a scaling methodology, derived from solution-oriented practice. This process was developed consultatively between the staff member and a group of pupils ($N = 42$). After an initial pilot across four classes it will be examined for its utility and up-scaled. Over an eight - week period, using the new recording and monitoring system, a significant fall in the number of restorative meetings taking place was recorded as their quality improved.

Language

Key findings revealed that staff:

- required input regarding language acquisition including the stages of language development and classroom strategies;
- felt they needed to adapt classroom practice to review methods and pedagogy;
- could become more reflective regarding their teaching styles.

The information obtained through the focus groups indicated that pupils within the establishment can at times feel overwhelmed by the pace of language use of the staff. Intervention focusing on language acquisition and intervention was seen as key and as such input from Speech and Language Therapy became salient.

The IT felt it an appropriate intervention for staff to use the ANWSA NP4 observation profile in a peer-to-peer manner. This would support the need identified above for staff to adapt their use of language to match the needs of their pupils. The data would be collated at three points throughout the year in order to highlight progress and impact. The key findings linked with the intervention next steps are highlighted in Table 5 in Appendix 3.

Fidelity structure

The IT was keen not only to measure the impact of disseminating the ANWSA document on health, wellbeing and attainment, but also create a fidelity structure in terms of how the initiative could be successfully disseminated within a real-world setting. Creation of a fidelity structure would ensure that the initiative (and its positive impact) would be transportable to other contexts. The project year 1 fidelity structure can be found in Appendix 1; it is cross referenced with the evidence-based model of Dane and Schneider (1998). The project fidelity and transportability will be further explored in the discussion.

Discussion

This development centred upon piloting the new Education Scotland initiative, Applying Nurture as a Whole School Approach (Education Scotland, 2016a). The project aim was two-fold; to provide evidence that the ANWSA document impacts positively on health, wellbeing and attainment and to provide a fidelity structure for future transportability of the resource into similar contexts.

Interventions, based on the needs analysis are being implemented. These include: an evidence-based language programme to upskill staff in the early years room and the primary school, staff peer-to-peer learning approaches involving NP4 and attunement within the classroom, a pupil and staff restorative conversation outcome tracker and a scaffolded learning visit to a neighbouring school[2] focusing on emotion check-in. Using a cycle of continual improvement, the school will embed and disseminate these interventions allowing for impact data to be collected in a robust fashion. This will take place both throughout the project design and in a more concentrated manner after a four - year period.

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[2] This neighbouring primary school has been held as a model of practice by Education Scotland regarding the health and wellbeing curriculum.

An emphasis on health and wellbeing within the education realm leads to improved outcomes for pupils (Brooks, 2013). It is anticipated however that a four - year period should allow for embedding the following intervention in a sustainable manner providing such data. Key attainment areas such as: student motivation levels; pupil mindset in undertaking challenging tasks; alongside their engagement levels; and academic attainment should . The project is part of the SAC, as such, it is expected that the impact will contribute to closing the poverty related attainment gap.

Creating a fidelity structure using the Dane and Schneider Fidelity Framework (1998) highlighted factors that aided the successful roll-out of the initiative and in turn will assist the future transportability of the project into differing contexts. Key aspects relating to the fidelity structure can be found in Table 2 in Appendix 1. Whilst it is envisaged it will take four years to upscale all six nurture principles, consideration should be paid to the sequencing of principles during dissemination. The nurture principles are often depicted as a list

from 1 to 6 (Figure 1), however they need not be disseminated in this linear fashion.

Throughout the course of the project the role of educational psychology has been to the fore, particularly in the development of *Teacher Professionalism*. This role has involved supporting staff to understand the key psychological theories underpinning nurture, such as attunement. Through the promotion of a model that allies training with coaching, the role of the educational psychologist has been to progress the daily classroom practice of staff. This is towards embracing a model more aligned with peer coaching and mentoring alongside clear knowledge regarding how assessment and intervention relating to language acquisition.

The development of school improvement involving collaborative action enquiry and change methodologies is echoed in the direction of travel advocated by Education Scotland and the Scottish Government (Education Scotland, 2016b). There are few professionals working in local education authority settings with a working knowledge of using these change methodologies in real-world contexts
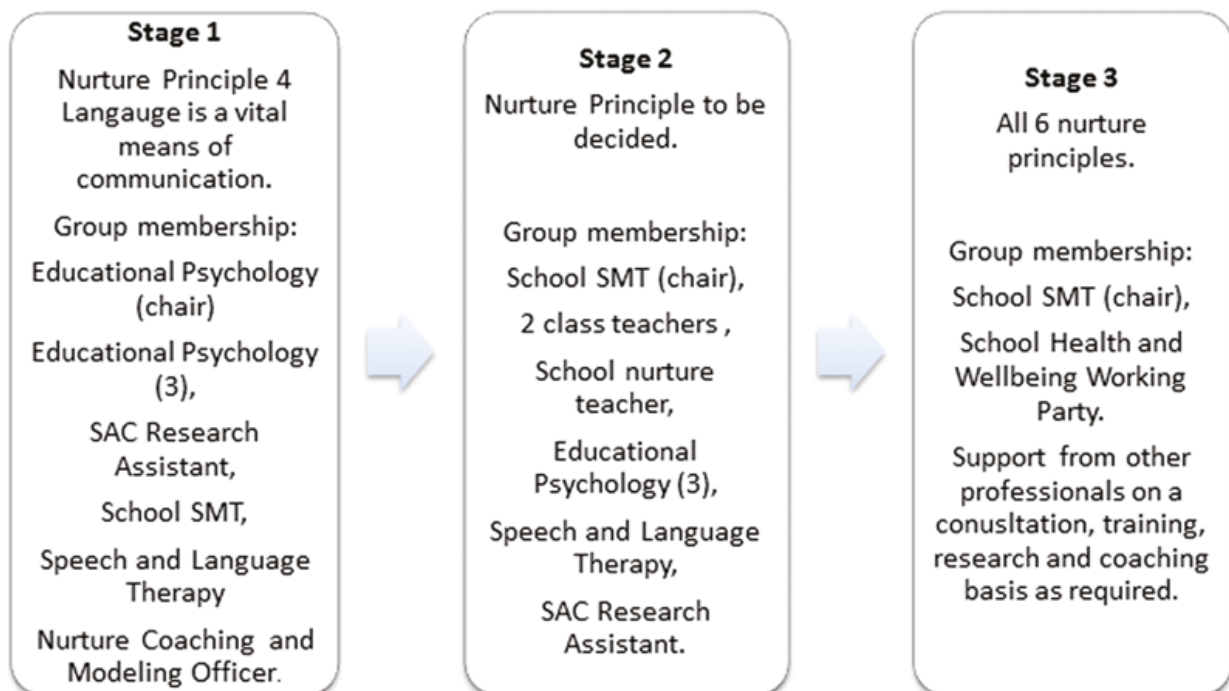

Figure 7: IT membership plan regarding whole school nurture dissemination (direction is steered by those who chair the implementation team).

as educational psychology (MacKay, 1997). A whole school nurture fidelity structure, therefore, should include such professionals supporting school staff to embrace change methodologies ensuring initiative sustainability. In doing so EPs build capacity with school staff to create change in their establishments, which is based on a robust process of information gathering and analysis. This embeds the use of evidence based practice in the culture, ethos and practices of the school. Sustainability of the current project is ensured through the creation of a maturity model exemplified in Figure 7.

Within this model stage one, the focus of this article, involves educational psychology coordinating and leading the initiative with school staff and linked professionals participating in the implementation team. At Stage 2, around one year into the implementation, it is envisaged that the initiative be coordinated by the school SMT with increasing numbers of school staff involved. By Stage 3 it is anticipated that the project will wholly be driven by the school, with multi-agency professionals such as educational psychology supporting via for example consultation and research on a needs led basis.

Providing data depicting that the ANWSA framework positively impacts on pupil health, wellbeing and attainment contributes to an emerging body of knowledge in a key research and policy area. In doing so, there is great scope to assist in answering the call from MacKay (2015) that *there has been little direct research into the actual effectiveness of applying nurturing principles to a whole school level.* Furthermore, creating a fidelity structure to support implementation allows us to ascertain not only if the initiative 'works' but also why and how it 'works' within a particular context. Such information is key for those wishing to effectively implement the ANWSA in a sustainable manner.

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Appendix 1
Framework for ensuring programme fidelity

	Component
1	**Adherence**
	Intervention is delivered as designed: • Using the ANWSA quality indicators and appendices alongside the proposed Fixsen et al. (2009) Implementation Model. *Key features of project design include:* • One nurture principle disseminated in first year. Maintain nurture principle in year two whilst introducing a second principle. Introduce remaining nurture principles over a four year period as school readiness develops and principles become embedded in practice. • After 4 years undertake robust evaluation of impact and outcome of embedding six nurture principles. *Staff trained appropriately:* • Project disseminated via training plus coaching model that ensured skills developed and staff scaffolded appropriately. • Cross agency input increasing the breadth of knowledge staff gained. • Early staff adopters of change were identified and utilised to deliver input. *Using correct protocols and techniques:* • A range of best-practice adult learning techniques developed: peer-to-peer mentoring, involving parents and children in the design of change, appropriate agencies (e.g. Speech and Language and Coaching and Modelling Officer) to support input. *The creation of an IT* • Comprising management, early adopters and multi-agency staff to ensure uptake and sustainability of project. • Key members undertook appropriate training regarding; (1) Whole School Nurture via Education Scotland; and (2) Change Methodologies via the EP service.
2	**Exposure**
	The number, length, frequency of sessions delivered: • IT meeting every six weeks to plan, reflect and action next steps. • Evidence based language programme – four workshops and every two weeks the Speech and Language Therapist will undertake consultation with school staff. • Restorative Outcome Focused Sheet – utilised daily by the P6 and P7s on a needs led basis. Evaluated at 12 weeks, with a view to upscaling on a whole school basis. • Attunement Observation Profile and Nurture Observation Profile (NP4) – undertaken on a staff peer-to-peer basis at three time period throughout the academic year. Each observation should last approximately 25 minutes, with solution oriented feedback being around 15 minutes. Data gathered after four months and evaluated. Nurture Observation whole school however view to upscale attunement observation to whole school. • Emotion Check In – a scaffolded observation session (with follow-up discussion) lasting a morning period (9–12) in a neighbouring primary school regarding emotion check-in. The format will include observing emotion check-in throughout the stages, considering success criteria and plans for dissemination in W. School. Staff attending will include the depute Headteacher and an early adopter maingrade.

Appendix 1 (continued)
Framework for ensuring programme fidelity

	Component	
3	Quality	*The manner in which interventions are delivered in terms of techniques, skills and methods alongside the skills and attitude of the facilitator.* • Educational Psychology involved in project on a research, consultative, coaching and training basis due to their knowledge of embedding nurture and Implementation Science. • EP to undertake initial readiness questionnaire with teaching staff, as an interactive interview, to elicit potential risks to the project. • Enthusiastic early staff adopters identified and supported by Educational Psychologists to gain expertise and lead in the development of the Attunement Observation Profile, restorative outcome tracking and taking forward emotion 'check–in.' • Expertise for project and intervention design drawn from members of the IT, that is, Speech and Language Therapy and the Nurture Coaching and Modelling Officer. • Involvement of pupils in designing change, for instance, restorative outcome tracker • Testing out change on a small scale prior to upscaling whole school (e.g. attunement observation profile and restorative outcome tracker).
4	Participant responsiveness	*Extent to which participants are engaged by and involved in the activities and content of the initiate:* • Focus groups delivered to P4–P7 pupils in a child–friendly interactive manner, using art materials and game activities, for instance, acting out a list of recalled seven part instructions. • Using a training plus coaching model enabled the team to initiate the project with an awareness raising session for all staff to wet their appetite for further input. • The implementation team, comprising staff both internal and external to the school allowed an enthusiastic group to take ownership and become motivated to lead its development. • IT shared their ongoing plans and data findings to the whole school using accessible communication methods, such as school development days and staff meetings. • A range of staff were kept up to date with developments including administrative staff, in recognition that nurture is developing culture and ethos in a holistic manner. • In an ongoing basis, the EPs identified early adopters who displayed initiative who then adopted leadership roles within it. • Parents should be kept involved and information disseminated through the use of a noticeboard and through consultation with the parent council. • Pupils to become further acquainted with the language and understanding of nurture as a concept and in its practices, for instance, designing pupil friendly versions of the six nurture principles for display and discussion in the classrooms.

Appendix 2
NP4 Key Area with data sources and findings.

NP4 Key Area	Data Sources	Findings
IS and Collaborative action research	Staff Pre/post IT questionnaire, semi-structured interview with school depute and CMO.	Lack of staff knowledge, understanding and confidence in using these change methodologies.
Parental Involvement	ANWSA Readiness Questionnaire.	An increase in parental involvement and project links with the early years remit required.
Attunement	Staff self-evaluation exercise (Figure 2), Staff pre/post attunement questionnaire, ANWSA Staff questionnaire, Pupil focus groups, Attunement Observation Profile (peer to peer data).	Inconsistencies in staff understanding and practice in relation to attuning with their pupils.
Restorative	Staff self-evaluation exercise (Figure 2), ANWSA Staff questionnaire, Pupil focus groups, Pupil Statistics.	Restorative well embedded in the practices of the school; however the outcomes were not always advanced.
Language Development	Pupil Statistics, Speech and Language Data & semi-structured interview, Staff self-evaluation exercise (Figure 2), ANWSA Staff questionnaire, Pupil focus groups, Readiness Questionnaire, NP4 Observation Profile (peer to peer data), SIMD data.	Staff required input regarding language acquisition including the stages of language development and classroom strategies/best-practice pedagogy.
Whole School Nurture	All data sources (see triangulation of data sources figure 6).	Lack of staff knowledge, understanding of nurture principles and the implications for classroom practice. Lack of knowledge regarding how to use ANWSA as an overarching framework for self-evaluation.

Appendix 3
Key project interventions for stage 1

Intervention	Format of Intervention
Evidence-based Early Years Language Development	• Educational Psychology and Speech and Language Therapy create an evidence based language development programme. • The programme will consist of five workshops for staff in early years and the first two years of primary regarding: *Ages & stages of language, Building blocks of language, Social circles, Setting SMART targets and planning for identified pupils.* • The school link Speech and Language Therapist and Educational Psychologist links will continue to support this aspect through ongoing coaching. • Impact data gathered via tracking and monitoring language acquisition scales and staff reflective diaries.
Upscaling ANWSA Attunement Observation Profile	• Interactive attunement session, with follow-up coaching regarding the observation profile disseminated by two Educational Psychology team members to nine early adopter staff. • Peer to peer observation using the profile took place at three points throughout the year. The profile was subsequently rolled out to all staff. Impact data revealed staff: (1) built upon each other's positive learning and teaching pedagogy; and (2) progressed and increased their own observed strengths throughout the year. The profile is now integrated as a core component of the school quality improvement calendar. The observation profile will then be rolled out whole school for peer-to-peer use.
Nurture Observation Class Profile – NP4	• Session run by school depute regarding classroom nurture observation profile (focus on NP4) with whole staff. • Peer to peer observation using NP4 observation profile (followed by solution orientated discussion) took place at three points throughout the year. Data revealed a closer pedagogy aligned with 'Language is a Vital Means of Communication' within the classroom setting.
Child-Centred Restorative Action Planning.	• An early adopter teacher led a group of pupils to design a new restorative tracking system. This included the creation of a joint action plan document incorporating solution oriented scaling for pupils to track and monitor outcomes from their meetings. The intervention has now been rolled out across the establishment. • The project was also linked to a SAC leadership programme using an action enquiry methodology. Findings indicate that there are significantly fewer restorative meetings taking place as the quality of those now occurring are more meaningful. This has also led to an increase in time for staff regarding learning and teaching.
Emotion Check-ins.	• The school depute and an early adopter class teacher are planning to visit a neighbouring primary school that has been highlighted by Education Scotland for its approaches to health and wellbeing. • Plans encompass: observing the emotion check in at differing stages, discussing the success criteria and formulating plans to disseminate this within the project school.
Parental Info sharing	• EP staff member presented on the project to the parent council. • Staff are creating a series of visuals around the establishment to provide a user friendly understanding of the project for community members and visitors.