

Final Report

Teacher Development Fund (Paul Hamlyn Foundation)

Art of Learning, Ayrshire



Teacher Development Fund Final Report

Basic Project Data

Please provide details in the table below relating to your activity **in the 2017/18 academic year only**.

Where you are not able to give an exact figure, please provide an estimate with a brief explanation of how you calculated this, if you feel it is appropriate.

<i>Number of teachers involved</i>	15
<i>Number of days (on average) in which teachers, school leaders etc. have had access to formal CPD support</i>	2 training days plus reflection sessions
<i>Number of hours of direct coaching (on average) and to whom it has been offered</i>	1 hour per week for each artist/teacher of direct coaching.
<i>Number of pupils directly involved in the project, and what they were involved in</i>	377 pupils who took part in the activity informed by AoL session plans and associated activity.
<i>Number of artists/arts practitioners involved</i>	6
<i>Number of hours of CPDL support (on average) artists/arts practitioners have had access to</i>	14 hours in 2 training days, plus additional reflection sessions.
<i>Number of school leaders involved</i>	4 school leaders
<i>Number of hours of CPDL support (on average) school leaders have received</i>	7 hours from attending the training session for new and continuing teachers.
<i>Number of hours of school leader involvement in other activities</i>	8 hours from participation in the reflection sessions.
<i>Time Spent Delivering Sessions</i>	15 teachers x 4 hours per week x 10 weeks = 600 sessions.

1. Project Activities and Progress

“The programme has totally shown me how expressive arts and creativity can underpin the whole curriculum”
Martin Hay, Class Teacher

1.1 Background

The Art of Learning (AoL) is a programme devised and delivered in Scotland by a partnership comprising Creative Scotland (CS), Education Scotland (ES) and Creativity, Culture and Education (CCE). It is also supported in this pilot form by the Paul Hamlyn Foundation (PHF) and is one of seven initiatives being carried out across the UK through their newly established Teacher Development Fund (TDF). The impact of the pilots is being evaluated for PHF by the Centre for the Use of Research and Evidence in Education (CUREE) and the digital assessments used within the project that are designed to test executive functions are provided in partnership with CEDETI, a research centre of the Pontifical Catholic University of Chile in Santiago.

The Art of Learning has been a complex and multi-layered action research initiative with four key investigations:

1. Executive Functions – exploring the hypothesis that regular creative learning through arts activities is successful in developing the executive functions of learners (inhibitory control, working memory and cognitive flexibility) with the premise that developing these results in improvements to a child’s capacity to learn
2. High-functioning classroom - closing the attainment gap in disadvantaged areas by supporting creativity through the arts, using a model of the high-functioning classroom and creative approaches to teaching and learning that value the importance of physical, social, emotional and intellectual engagement
3. Professional development for teachers and artists – co-creating and using creative learning across the curriculum with the aim for teachers to deliver sessions autonomously
4. Embedding learning for national partners and funders – a) in Scotland for educational purposes with Creative Scotland and Education Scotland and b) for Paul Hamlyn Foundation to evolve their Teacher Development Fund across the UK



The Primary Schools involved, and their status was as follows:

- Continuing in year two of the pilot - Auchinleck, Girvan, Heathfield, St John's and St Mark's
- Control schools - Darvel, Gargieston, Glenburn and Tarbolton
- Schools who reported a continued interest in embedding the learning from year 1 without support - Caledonia, Newmilns and Moorpark

Regionally, the pilot involved:

- 3 Local Authorities – the Director of Education from South Ayrshire, and senior managers from East and North Ayrshire were involved in the initial planning discussions. Two of them have remained actively connected to the project throughout.

Nationally, the pilot benefitted from:

- 3 partners (CS, ES and CCE) – interested in exploring and potentially scaling key concepts within their individual and collective contexts
- 7 pilots UK-wide – utilising various approaches and strategies to embed creative learning across the curriculum via the Paul Hamlyn Foundation's Teacher Development Fund.

Internationally, the pilot is connected to:

- 3 other investigators in Chile, Norway and Australia – co-ordinated by CCE, in its role as international creative learning foundation and key partner at all levels of this two-year pilot initiative.

1.2 Project Offer

The project was an opportunity for the five Ayrshire primary schools to participate in a piece of multi-layered action research that employed the arts, artists and creative processes at the centre of the curriculum. Each of the schools is sited in areas of complex and multiple disadvantage, a key focus of the work with the PHF, and a core element of the CUREE evaluation strategy.

At its core, the Art of Learning is a continuing professional development scheme aiming to model capacity-building practice in line with highest teaching standards and current educational research.

1.3 Variations from Year One

There were five key adjustments made to the pilot in response to feedback between year one, 2016/17 and year two, 2017/2018. These were all successfully implemented as follows:

1. *A new model, teachers working closely with fewer artists:*

Delivered in 2 x 5-week blocks, with one artist working in each school for 2 full days a week over the 5 weeks. This means that each school worked intensively with 2 artists.

Artists worked across all art forms, co-delivering some of the sessions on their two days of the week in school at the outset, supporting teachers' planning and reflection and generally enhancing teachers' learning throughout.

On the other 2 days, the teachers aimed to deliver the sessions independently to ensure that learners experienced at least one hour of high-functioning learning through the arts per day, for four days per week, over the 10-week period.

2. *More time to plan, reflect and evaluate together:*

Planning had been reconsidered so that more time was available for teachers and artists to plan together and to embed the work into the curriculum and within class topics. The initial training for existing and new teachers included planning time with artists also. Before each of the 5 weeks of project blocks began, artists visited their schools for two days to meet with the teachers and learners, to share background to their own practice and to continue planning for both delivery and evaluation within the school and the project context.

3. *Focus on building capacity, capability and autonomy:*

This was a key priority and was explored at length in the training days and reflection sessions. The expectation was that there would be a shift in the roles of the artists and teachers as the project progressed, moving from a model of full artist support to a model whereby teachers deliver the sessions autonomously. The additional planning time with the artists that was built into the project was intended to build confidence in the teachers to develop and lead the sessions.

4. *More resources available:*

The Art of Learning's pre-designed session plans continued to be a rich resource and source of inspiration for teachers and artists. This year, in addition to the existing 36 session plans created for year one, a new set of 12 sessions plans, 2 each across the art forms, were provided to give a wider choice and ensure there was new and original content ready for learners returning for a second year. The flexibility to adapt the session plans to the needs of the curriculum was also introduced and welcomed by all concerned.

5. Thinking about embedding:

This second year of the pilot was concerned with embedding what we learn about Executive Functions and creativity (especially around disadvantage), creative learning across the curriculum, professional development for teachers and artists and how we could scale and share our learning with others locally, nationally and internationally. An adviser from Education Scotland (ES) was brought on board as a critical friend to both support and challenge around embedding what we have learned throughout the Art of Learning's second year. This report is available additionally as an appendix.



1.4 Project Inputs

The project, in year two of the pilot, comprised the following inputs:

- Training – for teachers, school leaders and artists, three days in autumn 2017
- Session Plans – 36 session plans reviewed and improved from year one pilot experience, plus 12 new session plans for year 2
- Class Resources – practical materials required for session delivery, prepared and delivered direct to schools
- Project Handbook – a quick reference guide for both participants and partners
- Risk Register – an audit of project risks and proposed mitigates
- Planning Time - artists paid additionally to ensure clarity around roles and responsibilities
- Artist Expertise – the opportunity to work with 2 artists, each over 5 weeks, 2 days per week in every school for an intensive 10-weeks experience of intensive practice-based collaboration
- Reflection Sessions – for participating schools staff and artists, three in total to consider progress at key project intervals, December 17, February and May 18
- Critical Friend – ES contract to support school leaders with embedding concepts. Extracts of this report are included within the Evaluation section and the full report available as an appendix

- CUREE Evaluation Framework – comprehensive dossier of tools from PHF aligning to TDF purpose as well as research visits, an additional case study, follow-up telephone interviews, online surveys and a theory of change model
- National Cohort Reflection Session – London workshops with partners and artists from across the UK
- National Teacher Reflection Session – London workshop with schools (18 June) from across the UK
- EF Digital Assessments – created by CEDETI, and pupils tested at start and end of project. Findings from these assessments are included within the Evaluation section
- Padlet – centralised digital repository of all project information, supports and signposts
- Project Planning Team – bi-monthly meetings in addition to monthly communications to schools and artists with project updates and developments
- A final visit to two schools by participating artist, Steven Grainger, for a reflective session to further capture pupil voice
- 6 x short films documenting key aspects of learning

1.4.1 Training Sessions

The first training day was dedicated to the needs of the artists involved, all of whom were returning for a second year of the pilot initiative. It took place in Glasgow on 31st October 2017. The session focussed on the project adjustments between the first year and second including:

- More space and time for relationship building between artists and schools/teachers
- Additional time for planning and for the handover between 5-week blocks one and two
- Emphasis on the creative process rather than their art-form specialisms
- Reiteration of the flexibility of sessions to adapt to learner and curriculum need
- Introduction of the role of Education Scotland’s critical friend
- Updated session plans and new pilot resources.

The two key messages for the session were the fundamental importance of striving towards the teachers autonomously delivering the sessions and engagement with the school leaders around the concepts of embedding.

The second training day was designed for artists to meet with teachers who had not previously been part of the project. It featured presentations on the theoretical connections between creativity, creativity skills and the Executive Functions of the brain and the project proposition that the creativity skills and high functioning settings could combine with specially designed class sessions to positively influence working memory, inhibitory control and cognitive flexibility. The session also explored the theme of disadvantage, in line with the PHF TDF investigation, and shared findings around the correlation between the socio-economic status of learners and the development of their Executive Functions. In children from families facing disadvantage the international research highlights that their Executive Functions are less developed than their peers when they begin school. The session emphasised the project focus on using the session plans to support cognitive development in learners.

It went into greater depth about the wealth of materials in the 49 session plans and illustrated how the eight hours of arts-rich activity across six art-form areas exemplified the high functioning learning environment CCE proposed was essential to develop creativity skills in learners and to improve Executive Functions for this age and stage of learner. The training explored the session format including warm-up, main activity and reflection as well as described variants and scaffolding ideas, the materials needed, and

resources provided as well as set-up requirements and additional tips for experimentation, collaboration and autonomous delivery.

The session was at pains to encourage ownership of the materials, maximising flexibility to adopt and adapt the sessions to the needs of learners, schools and curriculum topics. It aimed to support all teachers to fully engage as adult learners with all project potentials in a multi-faceted and nationally/internationally focussed action research initiative.

The third session was held for teachers returning to the project for a second year and their school leaders. A greater proportion of the session was given over to further contextualisation of the project within broader learning and strategic frameworks, consolidating ideas around delivering autonomously and considerations for embedding what might be learned from the second year of the pilot experience.

At all three of the training sessions a good proportion of time was given over to the evaluation requirements laid out in the dossier supplied by CUREE, the PHF-contracted research team. The need to engage with and complete the online surveys, teacher and school leader enquiry tools, learning logs and blob tree exercises were explained in full and the timeline for each step carefully laid out. Notice of potential visits by the research team was also given.

Every participant in the training was given a full project folder containing all session plans, the evaluation tools dossier, all training workshop presentations and the schedule to absorb in advance of preparation meetings between artists and schools planned for the following week.

Each of the three sessions were well attended, the levels of commitment and curiosity were high and the questioning pertinent. Feedback from the various participatory exercises was collated into a FAQ document that was shared at the outset of the project and queries systematically answered across the duration of the pilot.

1.4.2 Padlet

As a trial within this second year of the pilot, CCE created a group Padlet to store all background information, presentations, evaluation and project information. It has been joined by over 30 project participants including the artists, most teachers, school leaders, evaluators, funders and researchers.

Education Scotland's critical friend was particularly warm in his praise of the Padlet as a concept to support learning, clarity, communication and potentially the project's future development. Heathfield set up their own Padlet with their artists to explore its educational potentials and benefits as a primary school resource.

1.4.3 Session Plans and Class Resources

Between year one and year two of the project several of the session plans were improved in line with feedback from both artists and teachers. In addition, a number of new session plans were also co-created with and by the artists involved bringing the total number of session plans available to 49.

The updated session plans were accessed by everyone via Dropbox:

<https://www.dropbox.com/sh/4x07akqvdaueb8f/AACdM-NKkv2MpSxBF4jA9v4va?dl=0>

The layout, objectives, cognitive processes, instructions and guidelines for materials, set-up and scaffolding remained the same but in this iteration teachers and artists were encouraged to adopt and adapt the plans

themselves, and the order of the plans, etc., in line with the needs of class topics, subjects or curriculum themes in play during the two pilot blocks.

This flexibility introduced was appreciated and proved advantageous for the teachers, lessening the pressure of time around the project as it blended more readily with the needs of the class over the school year. A good number of the session plans were particularly well suited to this adaptation and as a result the learning for the young people was fun, engaging and perhaps more memorable than might have been if traditionally delivered. As examples, the approach was used to underpin and enliven learning around curriculum topics such as Scotland's landmarks, Jewish culture, the life cycle of the salmon and Robert Burns.

Teachers remain appreciative of the quality and quantity of resource provided by the toolkit overall and acknowledge that it was an important addition to their pedagogical repertoire. The session plans that used digital technology proved to be particularly appealing for the learners and those avoided most by the teachers, dance, were also proven to be successful in more fully engaging the young people. With the drama sessions, these three themes were the most prominent in the forms mentioned in reflection sessions and added most to the pilot experience.

To aid with illustration of the project principles and practices a few session plans will be selected to feature on Education Scotland's National Improvement Hub <http://creativityportal.org.uk/>

1.4.4 Project Handbook

The project handbook was designed as a quick reference tool for all aspects of the pilot. Every adult participant in the pilot was provided with a copy. It was written in a clear and concise manner detailing project aims and objectives, roles and responsibilities, contacts, information on context and reach as well as the evaluation expectations from CUREE, CEDETI and the three project partners.

1.4.5 Risk Register

A register was established at the outset of the project as a tool to analyse and create a response to the potential risks that the pilot might face and assuring the wider health and safety of the project, its participants, processes and staff.

A key component of this activity was ensuring each artist was safe to work in school environments, confirming their disclosure status, as well as considering potential risks such as:

- Project practice does not prove theory behind proposition
- Project partnership elements prove problematic
- Evaluation load is overbearing
- Poor clarity around complex and inter-reliant roles and expectations
- Intellectual property / copyright ownership
- Project creep or overload around project complexity
- Staff issues in schools with or between teachers/artists/senior leaders/critical friend/project partners
- Breach of data compliance or testing information.

It documents a range of over 20 factors that could have had a negative impact on project delivery and success but crucially proposes systems and tools to mitigate the risks identified.

Child protection, communication, financial, political and managerial themes were identified and monitored throughout the delivery period by the project partners in their bi-monthly planning meetings.

No health and safety incidents were reported at the point of writing this draft report.

1.4.6 Preparation and Reflection Time

In the second year of the pilot, additional funds were made available for artists to provide 2 extra planning days per school to ensure clarity around roles and responsibilities and to support teachers on their journey to deliver the sessions autonomously during the project and embedding it beyond. The artists were also given 2 reading days to read the new session plans and for research and development and an extra day for a full handover between artist and teacher at the end of the first 5-week cycle.

1.4.7 Artist Expertise

The opportunity to work with 2 artists, each over 5 weeks, 2 days per week in every school for an intensive 10-weeks was a welcomed project adjustment by both the teachers and the artists. The benefits of having 2 professional adults in class cannot be underestimated and the different perspective and skills that an artist brings to the learning setting was both inspiring and stimulating for the teachers and the young people.

The artists were specifically asked to focus their time with teachers and classes on the creative process and on creativity itself and this proved to be an early challenge for some artists while for others it was a natural and iterative experience. The comfort of delivering within their own art-form expertise was temporarily removed as they were required to support teachers to deliver across the forms, across the curriculum and across the period in a model that was as unusual as it was demanding of all, adults and children alike. After a short period of uncertainty each artist settled into the pilot rhythm and worked successfully and collaboratively with teachers to maximise the potential of the creative process to inform and enliven the learning in class.



2. Partnerships and Networking

2.1 Project Planning Team

The project planning team comprised of representatives from Creative Scotland (CS), Education Scotland (ES) and Creativity, Culture and Education (CCE). They met face to face or via conference call at two-week intervals throughout the period of the project. They took collective responsibility for agreeing project steps, communications for schools and artists as well as project supports such as the Padlet, the project task list health and safety issues such as artist disclosure and the project risk register, the content of reflection sessions and projects additions such as the filming schedule, supporting the role of the critical friend, extra requests from CUREE/PHF such as the theory of change, case studies and research visit activity.

The project planning team worked naturally, collaboratively and with collegiality from the outset and have delivered a strong and united project throughout the second year of the pilot. They have been quick to spot and resolve issues and have worked closely to ensure that developmental opportunities were explored.

They met on three occasions with the ES critical friend and worked together with him to align plans and schedules against both CCE and CUREE needs in order not to overwhelm schools, artists or teachers and worked together to align impressions of the project impact, its strengths and weaknesses, where they could be addressed.

2.2 Project Management

The CCE project manager/s provided a point of contact for face to face meetings, e-mails and telephone enquiries throughout. The project management role was used to establish quality assurance expectations, ensure problems raised were quickly resolved, that project clarity and consistency was offered to artists, teachers, school leaders, evaluators and funders alike and that her role as project mentor and guide was responsive and useful to all concerned. The change of personnel at CCE at the end of the project has created some challenges in terms of drawing together the final report but these have been worked through.

2.3 Project Schools

The schools all had very different constraints and freedoms and all took different approaches to planning. There were some schools who struggled with staff shortages and that had a clear impact on how they had to plan / cover class / make best use of staff time. There was no one set pattern or expectation from the project partners, only that the artists were employed to engender and enable that sense of confidence for the teachers to lead on delivery and embed their learning from the earliest opportunity in the process. So, each artist had responsibility for negotiating the best possible position and solution for the project in each school they visited and did so admirably considering the variety of timetabling, curriculum, event (especially in the run up to Christmas) and other influences at play in each setting.

2.4 Project Teachers and Leaders

It cannot be underestimated how strong the teaching cohort were in the second year of the pilot; though all very different in style and approach, some very experienced and some very new teachers, some returning to build on the experience for a second year while others were tackling a complex and challenging project for the first time. The project benefitted from a positivity of attitude and a curiosity that overcame almost all barriers that were set in the project path. The range of abilities in each class was very wide indeed and that the teachers succeeded in navigating these difficulties is a testament to their skills and commitment as professional educators.

The school leadership were committed to the possibilities presented by the project and the teachers, already creative, were keen to exploit the professional development potential of the pilot to best effect for them and their learners.

“It has been lovely to have the opportunity to be a part of this project. I've enjoyed it thoroughly and really appreciate all the work that went on behind the scenes to create something that had such a positive impact on my children.”

Laura Montgomery, Class Teacher

3. Evidence about successes and areas for development

“The Art of Learning has changed the children’s problem-solving skills and I think that’s because they’re working more as a team and having to listen to other people’s perspectives before coming to an ultimate decision” Liz Ness, Head Teacher

3.1 Reflection Sessions

Three reflection / evaluation sessions were scheduled at the outset of the pilot in 2017/18; one at the end of block one in December one at the end of block two in February and a final one in May, scheduled to allow key learning to percolate and priorities for action or development to become apparent.

Each of the three sessions, two at Heathfield Primary School and one at Ayr Town Hall, were well attended, positive in spirit and outcome, as well as reassuring for everyone involved to check-in on the health of the project, its progress and alignment with overall purpose. Key learning points that arose from these sessions is included in Challenges, Opportunities and Successes in the Key Learning for Year 2 section of this report.

3.2 Critical Friend

In year two of the project, Education Scotland recruited additional input in the form of a ‘critical friend’ to support school leaders to think specifically about the lessons learned that could be embedded and to provide an external perspective on how learning from the project could be shared for the benefit of the education community in Scotland.

The need for this support had been identified by project partners at the end of year one of the pilot, recognising that certain aspects of the project could be improved through:

- School leader supported professional dialogue and challenge, with attention to how learning from the project had the potential to be embedded in each school
- An independent view on project attributes and its potential for wider educational impact
- Advice on how learning from the project can be framed in order that Scotland’s education system could benefit.

The role of the advisor was to feed in thoughts on the potential for sharing learning and engaging school leaders, ultimately with a view to sharing project findings on the National Improvement Hub.

The role ultimately fulfilled two main functions:

- 1) providing support and challenge, encouraging senior school leaders to develop and implement new creative practices using the arts across the curriculum.

2) fulfilling a quality assurance role for Education Scotland, providing an independent view and ensuring that learning from the project is framed in a way that will benefit all of Scotland's teachers and creative practitioners.

3.2.1 Critical Friend Observations

The Advisor, who is previously an HMIE school inspector was recruited into this role in autumn 2017. As part of his introduction to the project, he attended the training days in Autumn 2017 and was a very active participant throughout. In the first block, the advisor met with Head Teachers, observed sessions and met with the partners to share his observations and insights. In block 2, the advisor returned to schools to format his thoughts on the key lessons learned and how we might best share these more widely. These were shared with partners on 30 April and in his final report highlighted the following positive outcomes and evidence of impact on pupils:

- In all of the classes observed, most pupils were fully engaged in learning and enjoyed the AOL activities
- From class observations, there were signs that pupils' creativity was developing as a result of the methodology employed by all of the teachers
- Teachers reported that many pupils improved their confidence and their ability to express their views to their classmates
- Teachers reported that a significant number of pupils improved their skills in working collaboratively with their peers
- Teachers and headteachers reported that pupils were much better at reflecting on their learning than their peers who had not taken part in the project
- In a few classes, pupils were able to identify and name the executive function they were using. Some teachers reported that many pupils' 'inhibitory control' had improved as a result of using specific learning strategies applied in the Art of Learning.



He noted too the following positive outcomes and impact on teachers as showing:

- All teachers applied new techniques from the lesson plans. Many reported that they found the structure of 'warm up' activity, 'main' activity and 'reflection' in the lesson plans very helpful
- All teachers enjoyed working with the artists
- Teachers reported that working with the artists has helped them to adopt a more creative approach to lesson planning
- Teachers reported that working with artists in the classroom has helped them to try new methods and be less risk averse
- The majority of teachers have successfully applied some of the AOL techniques in other curriculum areas
- A few teachers reported that they have gained confidence in teaching aspects of the expressive arts as a result of working with the artists.

"It has changed my teaching by approaching things from a creative perspective; I've been bolder in my lesson choices, even changing the way I organise my classroom" Callie Dorward, Class Teacher

For the school leaders he noted specific and positive examples of:

- Innovation in leadership
- Empowerment of middle leaders
- Spreading good practice
- Improving learning and teaching
- Managing change
- Using the expressive arts to improve learning and teaching cultures.

Though the formality of the advisor's approach, and perhaps knowledge of his HMIE heritage, was intimidating for many at first, his interest and genuine curiosity meant he had a positive influence on the project and our learning as individuals and as a collective.

3.2.2 Critical Friend report - Key Strengths

In his final report, the advisor highlighted the following key strengths of the project:

The AOL project has:

- Provided opportunities for pupils to experience a range of expressive arts activities with support from professional artists
- Provided primary children with many enjoyable, engaging and motivating learning experiences
- Provided an ethos in which creativity across the arts was promoted and nurtured
- Improved pupils' learning skills by developing their ability to work collaboratively and reflect on their learning
- Developed the confidence of some pupils through taking part in a range of challenging activities
- Improved teachers' knowledge and skills of expressive arts by working with professional artists
- Provided teachers with a wider range of strategies to promote creativity and ways of organising pupils for different types of learning activities
- Helped teachers to be less risk averse when giving pupils more responsibility for their own learning
- Provided each pilot school with lesson plans which can be adapted and used throughout the school at different stages and in different curriculum areas
- Enabled middle leaders to develop their leadership and management skills.

"It gave me the confidence to show the children that I can learn with them and that it's OK to make mistakes"

Charlene Sewell, Class Teacher

3.2.3 Critical Friend report - Areas for Development

Although extremely positive about project as a whole, the advisor felt that it would have gained from more formative assessment procedures. He felt that these would have provided teachers with timely information on the progress and achievement of all pupils. As a result of the lack of feedback from the project's assessment procedures, teachers had to rely upon informal approaches to adjust their teaching to meet the individual learning needs of pupils.

Furthermore, the assessment methods used were not aligned to the standards of Scotland's Curriculum for Excellence and therefore it was not possible to evaluate how well pupils have progressed against these standards. Schools have not been able to report in detail to parents on the progress children have made or the standards they have attained while taking part in the project. There has been little if any moderation of the standards achieved across participating schools.

3.3 CUREE Evaluation Framework and Timetable

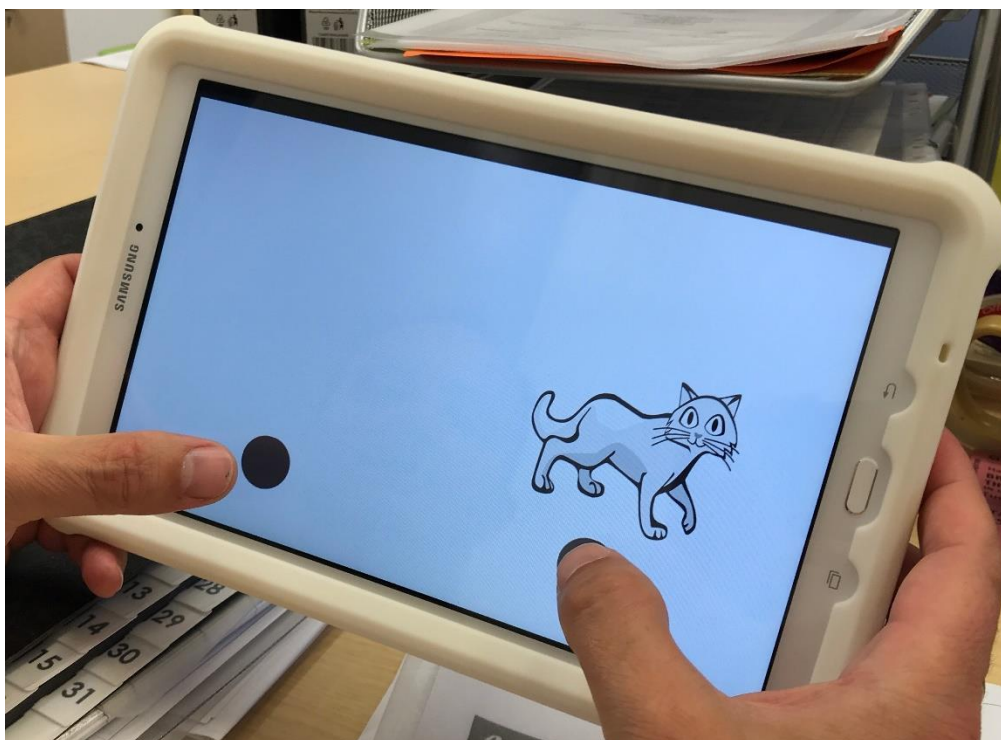
The Centre for the Use of *Research* and Evidence in Education (*CUREE*) is an internationally acknowledged centre of expertise in school and college improvement and evidence-informed leadership and practice in education.

CUREE were contracted by the Paul Hamlyn Foundation to evaluate the impact of the seven pilots across the UK involved in informing the format of their new Teacher Development Fund (TDF).

CUREE provided a comprehensive dossier of tools from PHF (consistent across all the UK pilots) and aligning to the purpose of the TDF. In addition, the CUREE team aimed to carry out one research visit before Christmas 17 (a member of their team's trip was sadly abandoned due to adverse weather conditions) as well as research visits on February 22nd and February 27th. Paul Hamlyn additionally asked CUREE to carry out a case study exploring specific examples of interesting practice, and follow-up telephone interviews with to inform a concluding survey with teachers/artists/pupils of impact of the pilot overall.

3.6 Digital Assessments

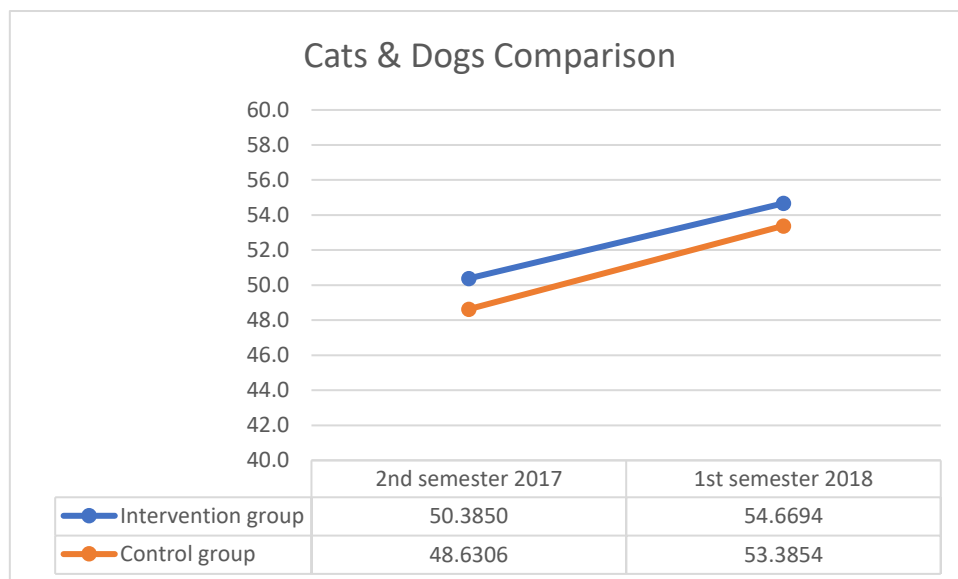
The digital assessment tools are in the form of an app for a tablet, designed by the Development of Inclusion Technologies (CEDETi), based in the school of Psychology of the Pontificia Universidad Católica de Chile. The benchmark assessments at the start of the project were carried out by the CCE Projects Officer in September / October 2017 and included the five participating schools as well as four control schools. The final assessments were carried just after the conclusion of the practical element of the project in April 2018. These were carried out by one of the participating artists who is well-known to all schools involved.



The assessments comprise of 4 games, specifically designed to measure executive functions and the data collected was automatically submitted to CEDETi through the app. The test results of participating and control group children between the testing in the Autumn of 2017 and the testing in April 2018 (after the practical element of the project had concluded) are shown below.

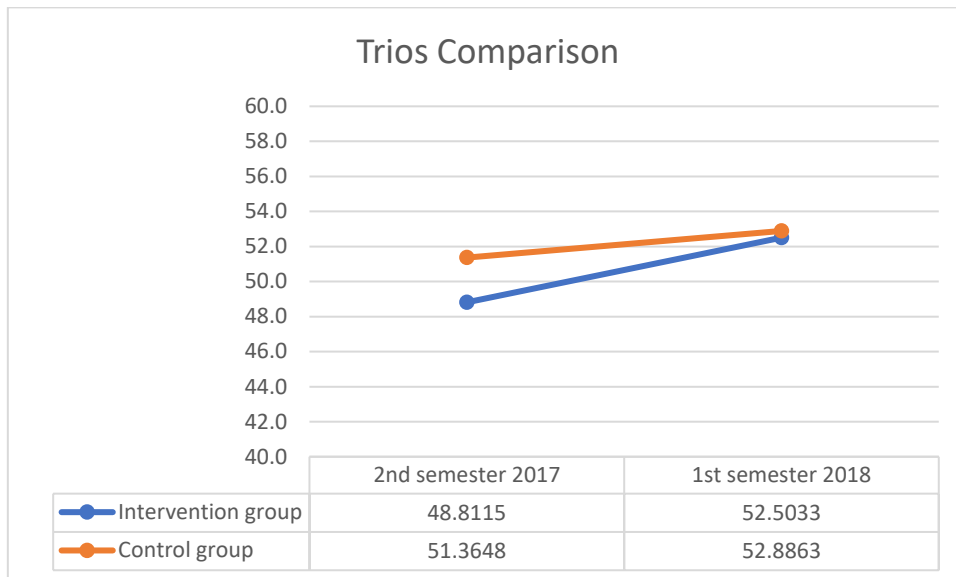
Game 1: Cats and Dogs (primarily looks at: Inhibitory Control, Working Memory, Cognitive Flexibility)

A series of rounds which show cats and dogs both separately and mixed randomly on either left or right half of the screen and ask the learner to press the button on the same side for a cat and on the opposite side for a dog before the picture disappears. Learners need to be able to think before acting and resist acting impulsively while reacting quickly.



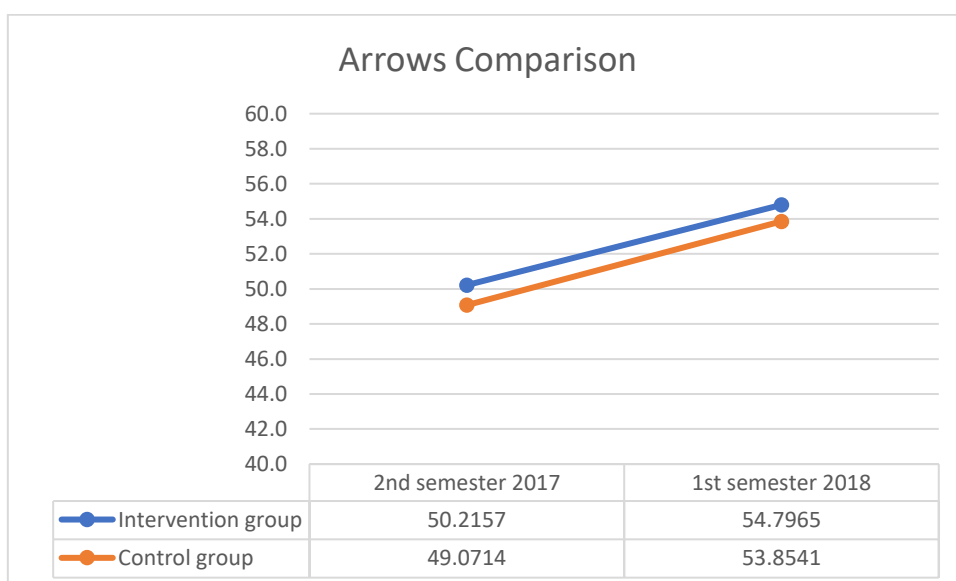
Game 2: Trios (Cognitive flexibility)

Several rounds presenting four shapes at a time, three of which have something in common; the learner has to identify which picture does not belong with the rest based on a certain criterion, without any clues or advice from the researcher.



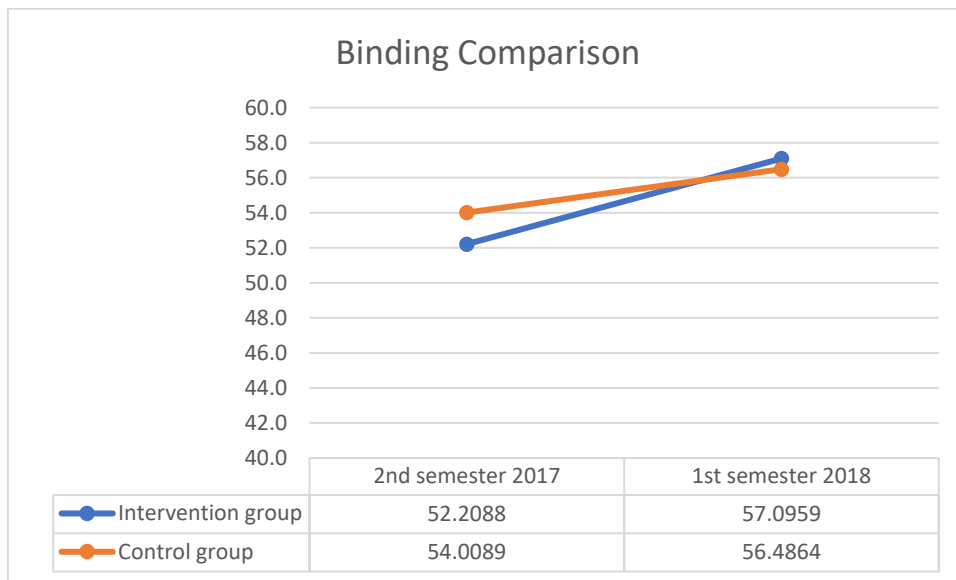
Game 3: Arrows (Inhibitory Control)

A series of rounds which show arrows pointing in different directions. For arrows pointing left, right or up, the learner needs to click on the arrow pointing in the same direction from the three options underneath, irrespective of the colour; for arrows pointing down, the learner needs to resist pressing the arrow pointing down or any other arrow and not do anything for 1–3 seconds. The game speeds up twice.

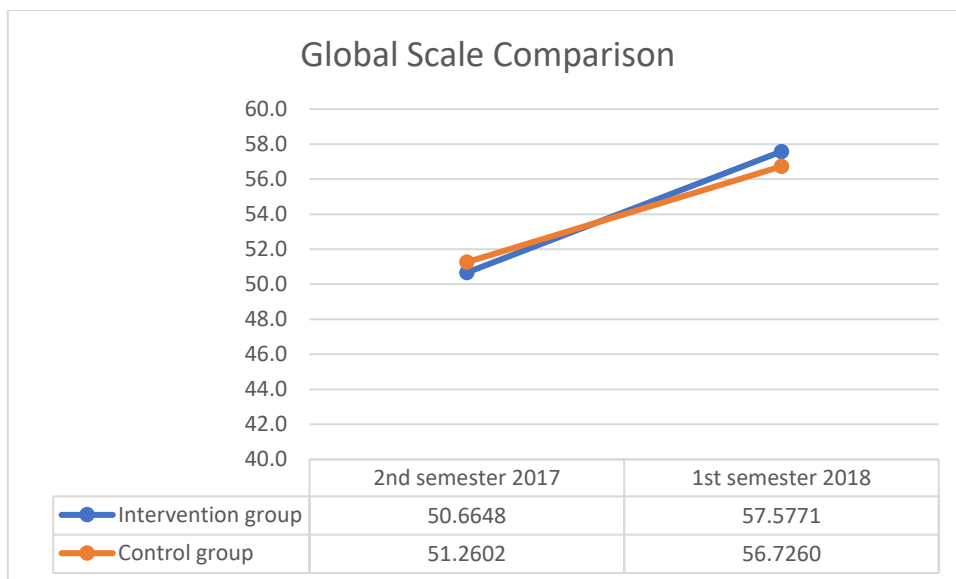


Game 4: Binding (Working Memory)

A series of rounds showing pictures alongside numbers or simple shapes and afterwards asking the learner to recall correctly which picture was associated with which number/shape. Pictures show everyday objects and animals and there is no obvious link between these and the numbers/shapes; learners need to come up with their own strategy to store these links in their short-term memory. The pairings are only shown for a very short period of time and there is increasing difficulty.



Combined Results



From the data presented above it is clear that the intervention has had a positive effect upon the pupils from the participating schools. Executive Functions naturally improve by age and when a child is in formal education, which may account for the apparent improvement in the control school pupils, but the differences between the groups in the 'Trios' and 'Bindings' games shows relative improvements in the participating children. Importantly, although the differences between the two groups is not significant in terms of numbers, the trend is consistent. This evidence suggests that significant improvements could be made with a longer-term intervention.

Further analysis is planned to interrogate the data to provide an insight into the results of children by age-range and also provide a comparison with children on an international level. In addition, further Executive Function assessments are planned with the current participating and control schools on the 2018/19 Spring Term.

The artist who administered the digital assessments then worked with CCE's, Projects and Information Officer to improve the guidance around setting up and delivering the tests in order that the data collected is consistent beyond the pilot, especially for those schools both in the UK and overseas who will engage with AoL principles beyond this pilot period. Heathfield Primary School will now work directly with CEDETI to continue to gather and analyse data around their AoL experience into a third year of practice.

3.7 Film Capture

The films from year one of the pilot were finalised during spring 2018 and are available here:

<https://youtu.be/aSZwunpznnM>

<https://youtu.be/93RsoORPy8Y>

<https://youtu.be/7RhYMMCK578>

<https://youtu.be/PPzxHWJ7g6w>

<https://youtu.be/wGsZHNJEak4>

<https://youtu.be/29sUd5ldKe8>

The playlist is hosted here:

<https://www.youtube.com/playlist?list=PLcD2TdZ4bXSkdSA3yrLVn356E-CGBnEcm>

The films from year two of the pilot are available here:

<http://qlnk.io/ql/5b06e8e8e4b03a65987c94d2>

3.8 Project Case Studies

PHF commissioned CUREE to complete a case study on Heathfield Primary School and how they are embedding learning through the arts. This is being finalised and will be submitted to PHF by CUREE upon completion. In addition, Dr David Parker was commissioned by CCE to complete a case study exploring creativity, Executive Function and the challenge of measuring impact. This will be forwarded to PHF upon completion.



4. Key learning for Year 2

“I’ve got a lot of new ideas for my own practice that I’ll take forward; I feel a little braver in doing this kind of learning”

James McQuillan, Class Teacher

4.1 Challenges, Opportunities and Successes

Listed below is a summary of the challenges, opportunities and successes of the Art of Learning project that relate to the six core areas for learning as identified by PHF: CPDL Models and Methodologies, Teacher Confidence and Autonomy, Extending and Embedding Practice, Knowledge transfer within schools, Knowledge transfer between schools and the Role of Artist Practitioners.

4.1.1 Challenges

- Busy schools, busy timetable, busy time of the year – a squeeze on planning and protecting planning time was acknowledged
- Pressure to deliver on curriculum and other initiatives – resulting in project squeeze and competition for teacher attention and energy
- All schools experienced challenges in staffing and sourcing cover, which is an ongoing challenge for many schools across Scotland
- The extended flexibility in lesson planning in year 2 of the project may lead to a dilution of the more powerful approaches set out in the CCE lesson plans
- In a few lessons, there was scope for communication between the artists and the children to improve. Many pupils showed signs of losing interest in lessons when initial explanations and directions were protracted or overly complicated
- In a few lessons, pupils with additional support needs were not able to do the work of their peers.
- In a few lessons, artists used more advanced and abstract language than class teachers and this made listening for understanding difficult for many pupils
- Leaders and staff found the evaluation/assessment approaches to be overly complex
- Leaders felt that there were too many visitors to schools and too many emails about the project
- Leaders said that they could not attribute any improvement in pupils’ attainment to the impact of this project alone as there were many other initiatives in place at this time with the aim of improving attainment
- In some schools, Head Teachers priorities have over-ridden the joint planning time scheduled for teachers and artists
- The primary schools had very limited ICT resources.

4.1.2 Opportunities

- Continue to devote time to the dynamic relationship between artists and teachers and specifically to the journey to autonomy for the teachers
- Make maximum use of the planning time
- Keep the AoL focus on CPD, capacity building in the schools and on teacher development and autonomous delivery
- Employ simple strategies for introducing complex or abstract themes in a straightforward and inclusive way throughout block 2
- Recognise the diversity of learning styles, preferences and abilities that need constant consideration and differentiation in approach
- Continue to recognise the importance of warm up and reflection time and activity
- Continue to build confidence to improvise, adopt / adapt, experiment, test and try
- Continue to build confidence to employ personalised and independent strategies for autonomous delivery and sharing practice across the schools.

4.1.3 Successes

Pupils:

- Young people were enthused and energised by art of learning principles; it was engaging, freeing, motivating and fun
- It was particularly beneficial for young people who can often have low self-esteem, seem quiet, disengaged or require different stimulus and encouragement to do well
- Teachers cited reluctant pupils as having less inhibition, greater likelihood of taking part, speaking out and expressing themselves, and with confidence
- The project placed a high value on reflective activity and understanding of process. Most lessons observed included a plenary which involved aspects of pupils reflecting on what they had learned. A Head Teacher reported that this was a significant feature of the project and that pupils following the AoL programme were much better at talking about their learning than others
- Teachers specifically cited improvements in listening, talking, collaborating, co-operating, attention to detail, ability to articulate views and opinions and new vocabulary amongst improved literacy and communication skills.

“If you get it wrong it’s OK. You don’t have to go in a huff or go crying, you just stand back up and say I’ve got this; I can do this” Eve, aged 8

Pupils and Teachers:

- The project developed creativity skills for teachers and pupils alike, building an openness to try new ideas, take risks, create the confidence to improvise, adopt / adapt, experiment and to test and try things together.
- It employed high levels of collaboration, group-working and problem-solving between class and teacher as well as between pupils
- It offered a framework to support both class and teacher creativity and explored creative learning potentials of self and others
- It built expressive arts and other subject knowledge and skills

- The framework was designed to challenge and motivate teachers and their pupils, one that encouraged freedom, creativity, adaptability and flexibility.

Artist & Teacher Relationship:

- Artists and teachers reported that the pre-week one visit of the artists to the schools facilitated planning and provided the basis for a good start to the project
- High levels of problem-solving and collaborative practice were evident between the artists and the teachers.

Teachers:

- Teachers who were involved for the second year of the pilot felt confident and assured in delivering the session plans creatively and autonomously
- The model of Principal Teacher as a broker and champion for the project within the school and in support of artists and teacher development was successful
- Staff reported that the flexibility in planning lessons enabled them to tailor AoL lessons to fit in with the class project/topics. Staff reported that this enabled them to make lessons more relevant for pupils and hence they thought that lessons in year 2 of the project were better at meeting pupils' learning needs, rather than delivering the 'off the shelf' lessons from year 1. This is true too with session plans being adopted and adapted to suit settings and individual classes
- There is evidence that the methods used in the AoL project are helping to extend the repertoire of teachers' strategies and that some of these strategies are being applied in other curriculum areas
- It provided a model of teacher professional development that was able to encompass key principles of learning by enquiring, collaborating, deepening knowledge and understanding.

Artists:

- Artists formed positive relationships with pupils and there was a strong sense of mutual respect between pupils and artists
- Artists reported that they were better equipped in year 2 to deliver lessons as they knew much more about the project, had already gained knowledge of the schools and knew some of the teachers and pupils
- The artists reported that they were more assured in exploring and supporting their non-specialist art-forms
- In conversation with the project artists we explored the roles they felt they took within the project. These included: coach, mentor, teacher, researcher, collaborator, observer, critical friend, learner, facilitator, supervisor, facilitator, disruptor, artist, consultant, designer.

"I think it has been a growing process; from introducing the Art of Learning to teachers to the point we're at now, where teachers are working autonomously and embedding key ideas"
Kate McAllan, Artist

School Leaders:

- Head Teachers were very supportive of the project. They reported that the tasks and activities engaged most pupils and consequently they were motivated by the AoL lessons. They also commented on how this project was motivating for the teachers involved.

Schools:

It was a valued addition to the raising attainment strategy and drive in each school.



4.2 Summary Conclusions

“I’m really keen for the whole school to embed this project as I think this style of learning will really benefit the children that we have in this school”
Hazel Roddy, Class Teacher

Art of Learning was an ambitious and multi-faceted project which required continuous review and reflection. The changes made to the delivery model in year 2 appear to have been beneficial in increasing the autonomy of teachers to deliver learning through the arts using creative approaches; a primary goal in the second year of the project. There is no doubt that the project has added value to pupils (engagement, enjoyment, making their learning fun and visible), to teachers (enhanced repertoire, risk-taking, collaborative skills and creative confidence) and to school leaders (meeting pupil need, providing a balanced curriculum, empowering middle leaders and managing change).

The challenge for the schools and for the project partners is to understand how to efficiently and effectively replicate the positive attributes of the Art of Learning for wider access and participation. This next stage of knowledge exchange will focus on what qualities, connections and developments will benefit the widest range of future participants.

At the start of the project, goals were set and a summary is provided below, drawing on a range of voices, reflections and reports:

Goals met for learners:

- Increased opportunity to develop their creativity skills and understand their own creativity
- Improved engagement with and enjoyment of learning
- Improved awareness of expressive arts and creative practice by and with artists
- Improved awareness and knowledge of Executive Functions (EF) generally and their own functioning specifically
- Increased ability to reflect upon and articulate their progress and learning
- Improved levels of confidence and their ability to express their views to their classmates
- Improved inhibitory control as a result of using specific learning strategies
- Improvements in executive functions in participating pupils, particularly in cognitive flexibility and working memory.

Goals met for teachers:

- Improved understanding of creativity skills and how they can support learning and learners creatively
- Increased capacity and confidence in using creative learning across the curriculum
- Enhanced repertoire and toolkit from which to teach, including adopting and adapting plans to suit learner, subject and curriculum needs
- Improved capability to deliver the suite of session plans autonomously and with creativity and confidence.

Goals met for school leaders:

- Improved understanding of the potentials of creative learning in class, in the curriculum and across the school
- Increased knowledge of how the arts and creative processes can impact on raising attainment
- Improved awareness of the skills and talents of teaching staff, new and established, and of disadvantaged learners.

Goals met for artists:

- New knowledge of how creativity and Executive Functions are connected
- Improved understanding of how creativity skills can support learning in a classroom setting
- Increased confidence in using the creative process, rather than art-form expertise, across the curriculum.

In line with the expectations of the funding from Paul Hamlyn Foundation (PHF) the project was successful in:

- Supporting teachers to autonomously deliver effective art-based learning in the classroom by building skills, knowledge and confidence in their practice
- Engaging disadvantaged children in learning in and through the arts
- Creating strong and dynamic partnerships between teachers, schools and artists.

Some schools are now actively considering creative learning developments and will be including these within their school development plans. Artist in residency approaches as part of their strategy for embedding learning beyond the life of this pilot initiative are being developed and several of the participating artists have already been engaged to continue working in schools.



5. Next Steps

5.1 Autonomy and Embedding

As a key component of our project, understanding the tipping point on the teacher journey to autonomy became a crucial exercise in helping the teachers achieve the project goals and full ownership of this pedagogy with their class. The artists helped us to inform our future work in this area:

Step 1. Full artist support/coaching – teacher observation/participation – weeks one to three

Step 2. Peer support – co-delivery/partnership/collaboration – weeks four and five/six and seven

Step 3. Decreasing to no support – fully autonomous practice/artist mentoring – weeks eight to ten.

The concept of embedding will only now be truly tested. As the second year of the pilot unfolded it was clear that schools were using a combination of general awareness raising, assemblies, parent events, staff discussions and peer to peer training as ways to explore how to share learning and maximise the potential of the Art of Learning across the wider school. Where the pilot sat in school development planning or in teacher development plans varied but will be pivotal in consolidating improvements in the future.

The final teacher and school leader surveys conducted by CUREE gave a positive view of how teachers and their schools would be embedding the practices learned during Art of Learning. 50% of respondents indicated they would spend several times per week devoting teaching time to embedding learning through the arts in the curriculum with 12% indicating this would happen every day. 38% would do this at least once per week. And compared to the start of the project, 100% of respondents indicated that their school's curriculum enables embedding learning through the arts in more depth. With regard to School Leaders, 100% of respondents were aiming to give greater priority towards embedding learning through the arts in the primary curriculum. Again, 100% of respondents indicated they were much more effectively able to positively model and promote professional learning about how to lead embedding learning through the arts.

We've included creativity on our improvement plan for next year so that it's not something we leave behind; it's something that's kept alive within the school and will be developed. Liz Ness, Head Teacher

What is clear is that awareness of Executive Functions has been raised for these teachers and their learners. The use of the arts across the curriculum is now commonplace in their practice and techniques like warm-up/main task/reflection are now part of their toolkits.

It is likely that having gained confidence in the use of dance and drama and digital technologies in a classroom and curriculum setting, teachers will use them more regularly as they embed these new skills into the into teaching practice. In CUREE's final teacher and school leader survey, 88% of teachers indicated

they were more effectively able to use different art forms in their current classroom practice following the Art of Learning project.

With all the challenges facing school systems it will certainly take skilful change management to firmly embed this pedagogy. The CUREE survey highlighted the following as barriers to teachers being able to utilise the skills and techniques introduced during the project:

- Curricular pressures which require hard results through assessment
- Time
- Lack of digital technology within school.
- Busy curriculum
- Other priorities that need to be focused on throughout the school such as raising attainment in literacy and numeracy.

However, the seeds are well and truly established in the individual teachers, no matter where the winds of educational change blow them from academic year 2018/19. The short-term outcomes identified in the AoL Theory of Change, created with CUREE, have been broadly met and the evidence suggests that participating teachers and school leaders are showing a significant appetite for sustaining learning from the project and to continue to engage in learning through the arts. There are examples of participating schools moving towards the more long-term outcomes in the Theory of Change model. One school, for example, is continuing to work with one of the artists from the project for 2 days per week over the 2018/2019 academic year, supporting the aim to continue embedding learning in and through the arts. The school in question has been delighted at the outcomes and impacts for their teachers and learners and the project has had a very specific and positive impact on some learners who have been involved over the two years; those that were particularly quiet, showed behavioural problems or were disengaged from learning have particularly benefitted from the project and have become more engaged in learning. They are very ambitious about their future plans and have an increased number of teachers and classes involved next year. The school lead from the AoL project has applied for and secured pupil premium funds to deliver the project and was supported to do this by the local authority.

The school lead reported that the Head Teacher is completely on board – that she wants the teachers to see themselves as creative. The development of creativity skills has been integrated within the school development plan along with literacy and numeracy as key priorities. There is acknowledgement that embedding this in the whole school will be difficult, but they are very much up for the challenge. Their ambition is to look at the way teaching is delivered, and the kind of learning experiences children are receiving. The teachers that were involved last year will be leading learners for their respective key stages therefore moving into leadership roles. Next year there will be 9 classes involved altogether. For the first term they are planning a very intensive period of time to immerse new teachers into the core elements of the AoL pedagogy.

The school lead is also in charge of NQTs for South Ayrshire which is likely to provide development opportunities with the aim to disseminate learning from the project to other South Ayrshire schools.

5.2 Creative Scotland

Creative Scotland, Creative Learning and Young People team, has gained significant learning through the AoL project at team and officer level around developing partnership programmes which address: teacher development, the 'creativity skills' and the poverty related attainment gap. The learning has stemmed from working with project partners CCE and ES, the schools, school leaders and artists as well as the independent advisor/ critical friend recruited by ES. Learning has included: understanding and exploring the concept of the executive functions of the brain and how this relates to 'readiness to learn' and therefore the attainment gap; consideration of the 'high functioning classroom' which generates simultaneous challenge intellectually, socially, physically and emotionally; understanding how best to construct project models which support teachers to develop their understanding of creativity skills; consideration of how best to support both teachers and artists in work based training and development and elements of successful collaboration with all partners. Challenges in year 1 led to valuable learning, and changes and adaptations to the model for year 2 followed – all partners worked hard to develop the model for the second phase so it explicitly focused on the teachers journey to autonomy and the artist's role in facilitating this journey. It also looked at embedding, which is moving forward with some schools, however it is clear that for this work to embed it really needs all the layers of the school 'system' to be in alignment; working together to achieve this outcome, particularly in an environment where schools are constantly challenged to respond to multiple agendas. The project was complex and as raised by the independent advisor, perhaps could have been framed better from the start in relation to the policy contexts that schools in Scotland work in. Meeting and discussing issues with the cohort of projects across the UK and learning from CUREE - particularly about disadvantage and evaluation - has supported CS staff to develop new skills and understanding in these areas. The project has provided valuable information through evaluation, and commissioned films, narrative evidence of the importance of: reflection, approaches which involve team and collaborative working in the classroom and activity which doesn't involve a 'right answer'. The films will continue to be a rich source of material to share, will be published on the CS website (in addition to the National Improvement Hub) and have already been shared internationally through a European Commission webinar led by the Head of Creative Learning and Young People at Creative Scotland. Teacher development sits with Education Scotland and CS will discuss, with ES, what next steps would best support artists to take a greater role in teacher development in Scotland. Creative Scotland will also continue to talk to ES and CCE about how the learning from this project may support future collaboration, particularly in relation to the attainment challenge in Scotland. CS is also keen to initiate discussions with PHF around ensuring that the Teacher Development Fund continues to be accessed by Scottish organisations.

5.3 Education Scotland

The Art of Learning provided a deep learning opportunity. The tight timescales involved in setting up the Art of Learning and the challenges of piloting a complex, multi-layered project with multiple intended outcomes, schools, participants and partners, meant a steep, yet rich, learning curve for all involved.

A huge amount of credit is due to those participating school leaders, practitioners and artists who embraced the opportunity to work with a project and session plans that were perhaps unusually clearly defined. They invested a great deal of energy and enthusiasm in and commitment to the project.

Key learning points:

- The benefits of investing in advance planning time and relationship building with school leaders cannot be underestimated – this allows not only for professional dialogue around project principles, but essentially, around each individual school’s curriculum and the practicalities of carrying out project activities in each setting.
- Of equal importance is the investment in planning time for artists and teachers to work in partnership, building relationships, learning from each other, and in this case leading to the autonomous delivery of sessions adapted to suit each teachers’ curriculum plans.
- The project has confirmed that creative teaching and learning means learners, teachers, and artists are engaged deeply and meaningfully, and in this project that was particularly evident in year 2 when teachers and artists had the time to collaborate and co-create and the autonomy to implement project principles and techniques in their own way.
- One unexpected finding was that as teachers in year 1 worked with a number of different artists and vice versa, and in year 2 identified those they worked best with, it was clear that those worked best together had similar teaching styles and approaches, for example, risk takers got on well with other risk takers.
- A number of general principles from the project support creativity in teaching and learning and relate well to Curriculum for Excellence approaches, for example, encouraging risk taking, using open-ended enquiry, involving learners in choosing how they learn and how they share their learning, reflecting on learning, identifying and articulating skills, and working with partners to contextualise and make learning real and relevant.

5.4 Creativity, Culture & Education (CCE)

CCE acknowledges the enormous learning gained through the development, piloting and subsequent continuation year of the AoL. The opportunity to pilot the AoL, refine it (following a period of significant internal reflection and feedback from participating schools, partners, PHF and its evaluation team in CUREE) and continue to deliver it into a 2nd year has made the delivery model more far more effective and relevant for schools.

Below is a summary of the key learning for CCE which will inform our future work on the AoL and on our wider creative learning projects:

- School leaders are key and should be supported as leading learners; they are the key drivers of change in pedagogy
- Supporting teachers to move to autonomous delivery more quickly
- Ensure that challenge and risk taking are integral to the programme as powerful opportunity for teachers and children to learn
- Ensuring the commitment of school leaders, teachers and artists to planning and reflection time
- Ensuring that local policy contexts including formative assessment arrangements are taken into account
- Selecting artists with the ability to work with ideas beyond their own practice
- We will further our refinement of the use of digital assessments in schools and create comparisons with children on an international level. CEDETi results are positive but a longer intervention would be beneficial.

Engaging with the TDF has added to CCE's existing knowledge of supporting schools and education systems internationally. The opportunity to meet with other TDA projects and to participate in the ongoing reflection with the PHF and the evaluators has also provided great opportunities for learning

Moving forward, CCE are supporting the delivery of the Art of Learning in a variety of other international contexts – this work has and will continue to be informed by the AoL in Scotland. The executive function test results from learners in Scotland will also be compared with children in other countries. CCE is also exploring an exciting new hybrid of the AoL focussed on dance working with Wayne McGregor's dance company and neuroscientist Adele Diamond who is a leading expert in the field. We want to continue to explore and understand better how the development of creativity skills and learning through the arts can support the cognitive development of young learners.