



University of Dundee

Art Together Toolkit

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Art Together Toolkit

an observational toolkit
to record the experiences
of young children
during family visual art activities

Part of the *Art at the Start* research project, University of Dundee, in partnership with Dundee Contemporary Arts.



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Foreword by Sarah Derrick

Head of Learning at Dundee Contemporary Arts

Dundee Contemporary Arts (DCA) is an internationally renowned centre for contemporary art and registered charity that enables audiences, artists, and participants to see, experience and create. With two beautiful large-scale gallery spaces, two thriving cinema screens, a busy print studio, an award-winning learning programme, and a packed programme of events, workshops, classes, and activities aimed at all ages and abilities, DCA is a vibrant cultural hub open to all, located in the heart of the city. Our vision is to enrich people's lives through art, culture, and creativity.

Through DCA Learning Programme we have been delivering art making activity inspired by all our programme areas - film, exhibitions, and print making - for over twenty years. We have seen wee ones grow up to be adults and then bring their own wee ones back to participate. Through this time, we have witnessed moments of discovery, self-awareness, and agency. We have much written feedback and many stories to tell which are powerful in advocating for continued support, but I, as Head of Learning, have been feeling the need for better evidencing of the impacts or potential impacts of this kind of work.

The role of observer is something that we have considered and tested in a small way with longer term projects. For example, we participated in the development of *Is This The Best It Can Be Toolkit* (Creative Scotland, 2016) for framing up collaborative or partnership working. One of our longest project partnerships with Tayside Healthcare Arts Trust, engaging with adults living with long term health conditions, had already asked a simple research question: *'How do we know that we are doing what we say we are doing in our creative making workshops? And what else is happening that we need to take note of?'* We acknowledged that the role of 'observer' would be a valuable addition to the project team to help

answer these questions, rather than relying on informal check-ins as we went along and feedback at the end of experiences. However, we took this no further, lacking a research partner or funding for the additional resource.

Since 2018 DCA has been a partner with Art at the Start, University of Dundee, researching what happens when children 0-3 years old make art together with their caregivers, and focusing on PhD research that will help us to better evidence impacts, such as this toolkit. For this toolkit the role of 'observer' is vital and we have had to seek additional funding and staff time to help us pilot this role. I have been in the role of 'observer' myself, using the checklist, and have found it a wonderful experience, taking the time to focus on what is happening in a session, between one child, their caregiver and the materials/prompts offered.

We have only just started working with the checklist and role of 'observer' with our programme, but I am aiming to have a year's worth of data. I am hoping that outcomes from using the toolkit plus support from PhD researcher, Holly Rumble, will help us to better understand what we can offer through our art making sessions, better articulate the need and potential impacts of the work that we do especially with pre-school age children, and therefore improve what we offer and advocate for as vital work.

Sarah Derrick

Further reading:

Art at the Start (2023). *Exploring the impact of the arts in the early years*. <https://sites.dundee.ac.uk/artatthestart/research>

Creative Scotland (2016). *Is this the best it can be? A reflective toolkit for artists, arts organisations, partners and participants*.

<https://www.creativescotland.com/resources-publications/guides-toolkits/is-this-the-best-it-can-be>

Guidance

Who is the Art Together Toolkit for and what does it do?

The Art Together Toolkit is designed for visual arts organisations seeking to evaluate how their family activity programme supports children's social wellbeing and development.

It includes an anonymous observational **Checklist** for use in live sessions, a **Scoring table** spreadsheet for collating the observations, and an **online** mechanism for reporting the results. We hope that by sharing your results, you can help the sector provide better evidence of the benefits of taking part in art-making.

The **Checklist** provides a framework for recording children's experiences in four domains that contribute to their psychological wellbeing:

Agency: This refers to the child's developing awareness of their autonomy: their ability to affect change on the world around them. This awareness of themselves as a distinct entity to others is necessary for developing social cognition.

Relationships: The quality of the child's relationship with their parent/caregiver has long-term implications for their mental wellbeing. Sensitive and responsive interactions can support the child to develop a secure attachment relationship, which is associated with social competence in later life.


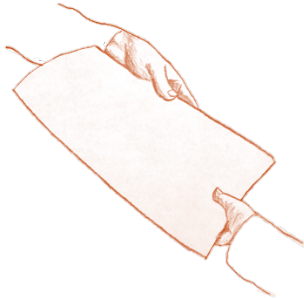

Engagement: We include expressions of pleasure, enjoyment, interest and concentration as indicators that the child is engaged in the art activity. Pre-schoolers' active engagement in tasks is associated with the ability to self-regulate emotions.

Development: We also include cognitive and physical development in our checklist, including gross and fine motor skills, numeracy, and opportunities for language development.



Recording the presence of these experiences can indicate how your art activity might help young children to develop their social, emotional, cognitive and motor skills. The **Checklist** has been developed through observation of infants (0-3 years) and young children (3-5 years) working together with their parent/caregiver but may also be useful in family workshops with a broader age range.

We look for these four domains using what we might see in a workshop setting (see illustration below).

	Making What the child is doing with the materials
	Interacting How the child and parent work together on the activity
	Engaging Focus, interest, and pleasure

Development of the checklist

The **Checklist** is derived from the 'Infant activity observation checklist' developed by Art at the Start (Armstrong & Ross, 2021), following an extensive analysis of video footage of parent-infant art making. The experience examples were re-worded in April 2022 for use with children aged 3-5 at Dundee Contemporary Arts, and the current version has been designed for specific use in public visual arts activities (i.e., in a non-therapeutic context). If you are running therapeutic sessions aimed at *changing* infant attachment or wellbeing over a longer period you may wish to use the original checklist (Armstrong & Ross, 2021). The **Art Together Checklist** is intended for use in single sessions but could also be used to record a series of sessions with the same child. Please read the section about anonymity if you wish to use the checklist in this way.

Further reading:

The observational tool for infant-caregiver activities:

Armstrong, V. G., & Ross, J. (2021, Dec). *Observational tool for infant-caregiver activities and therapeutic interventions*.

<https://discovery.dundee.ac.uk/en/publications/observational-tool-for-infant-caregiver-activities-and-therapeuti>

For an interesting report about the role of the parent-child relationship in child development, see the Baby Bonds report by The Sutton Trust:

Moullin, S., Waldfogel, J., & Washbrook, E. (2014). *Baby Bonds: Parenting, attachment and a secure base for children*. The Sutton Trust.

<https://www.suttontrust.com/wp-content/uploads/2019/12/baby-bonds-final-1.pdf>

Art activities that enable children to express themselves support Article 13 of The United Nations Convention on the Rights of the Child:

United Nations (1989). *United Nations Convention on the Rights of the Child*. General Assembly Resolution 44/25, 20 November 1989.

https://www.unicef.org.uk/wp-content/uploads/2010/05/UNCRC_united_nations_convention_on_the_rights_of_the_child.pdf

How to observe ethically

Observation and consent

“Unless those observed give their consent to being observed, observational research is only acceptable in public situations where those observed would expect to be observed by strangers.” (British Psychological Society, 2021, p23)

Observation is a valuable method of recording experiences where surveys or interviews might seem too intrusive. It has been used for decades in psychological research and is becoming more commonly used in the arts (e.g., Creative Scotland, 2016; NMS, 2022). In a gallery setting, visitors might expect to be observed by staff when viewing an exhibition, but possibly less so when participating in a workshop. Therefore, participants need to give informed consent before you begin observations. This should be undertaken using the [Participant information sheet](#) provided in the resources, which must be available for participants to take away for later reference. You should also provide a viewing copy of the [Checklist](#) so that they understand how the observation will be formally recorded.

Most importantly, the observer must speak to each participant, to bring their attention to the [Participant information sheet](#) and confirm their consent to be observed. Participants should also be given the opportunity to ask questions. Those who do not wish to be observed should be given the opportunity to confirm this with the observer. The observer can then exclude them from the observation in an appropriate manner. For example, if your activity has a small number of families attending, it may be sufficient to make a mental note of those opting out. If the activity is a large, drop-in session it might be better to offer a colour-coded opt in or out sticker system. Try to ensure that the choice to opt out does not make the family feel ostracised. If the session is booked online, then the participant information can also be provided digitally: this allows the participants to read the information at their own pace before attending. Sample text is available in the [Participant information \(extended online text\)](#) resource.

With young children, it is advisable to look for their 'assent' to taking part. If a child appears unwilling to participate in the observation, then it is appropriate to stop. The British Psychological Society suggests you watch for signs such as "breaking and avoiding eye-contact, 'closed-in' body posture or looking towards exits or out of windows" (BPS, 2021, p17). Do be aware of any behaviour that makes you think they are uncomfortable with being observed and stop if necessary. If they make frequent glances towards the observer and it seems to interfere with their engagement with the activity, then stop.

Withdrawing consent

In practice, this may mean that if a parent approaches the observer whilst the observation is in progress and says they have changed their mind about consenting to be observed, then the completed checklist must be destroyed. If this request occurs after the observation, and the observer is no longer able to identify the anonymous sheet in question, then no further action need be taken. This time limit is made clear to participants on the **Participant information sheet**.

Anonymity

The **Checklist** is designed to record anonymous observations. If there is a risk of the child being identified (e.g., in a group with one 3-year-old and several 5-year-olds), then it may be worth leaving the age box blank. However, in your report the results are aggregated for the whole group, so individual data will not be made public. If you intend to observe the same child over several sessions you will need to devise an anonymous coding system for your participants so that you can link their **Checklists**. Never write a participant's name directly on the sheet and keep any 'keys' (a list of names paired with the anonymous codes) in a secure location. Destroy the 'key' as soon as the final **Checklist** has been completed and use the codes for your analysis.

Terminology

This may sound obvious, but in using this observational **Checklist**, you are conducting research. You can use this research to help *evaluate* the performance and outcome of your activities, but it also means that you are aiming to contribute to a body of knowledge on the same subject.

Your research question is a variation on “**How does our [family drop-in session] support the psychological wellbeing of young children?**”

The children/parents are referred to as participants (not subjects) because this term acknowledges their autonomy, and right to withdraw from the research. You have a responsibility to protect the dignity and rights of the people involved in your research.

Further reading:

The British Psychological Society Code of Human Research Ethics:

The British Psychological Society (2021). *BPS Code of Human Research Ethics*. ISBN 978-1-85433-792-4.

<https://www.bps.org.uk/guideline/bps-code-human-research-ethics-0>

Examples of toolkits in the arts with observational elements:

Creative Scotland (2016). *Is this the best it can be? A reflective toolkit for artists, arts organisations, partners and participants*.

<https://www.creativescotland.com/resources-publications/guides-toolkits/is-this-the-best-it-can-be>

National Museums Scotland (2022). *Social Impact Toolkit*.

<https://www.nms.ac.uk/about-us/our-services/training-and-guidance-for-museums/social-impact-toolkit/>

How to use the checklist

Take a look at the **completed Checklist (p15)** in conjunction with this section.

The observer

- Introduce yourself whilst speaking to participants and distributing the Participant Information Sheets.
- In the session, spend **5 minutes** observing each child/parent, and observe one pair at a time.
- Begin observation after the child has settled, and before the group starts clearing up.
- Avoid talking to or interacting with the participants during the observation.

There will of course be experiences missed either side of the designated period, but by treating all pairs equally you will gather a random sample across a wider group. This will reduce bias in your results, and with a larger set of completed **Checklists** over a few sessions you can be more confident that you aren't just recording what you want to see!

The observations must be carried out by someone other than the workshop facilitator, as they require focussed 5-minute periods. You can of course have several simultaneous observers but be wary of creating an uncomfortable ratio of observers to participants.

Make sure the facilitator is comfortable with their session being observed: they might be worried that the quality of their delivery is being assessed, for instance.

Activity details

If the analysis and interpretation will be conducted by someone with no first-hand knowledge of the activity, you will need to provide them with a separate rich description of its structure, content, and contextual information such as the space and furniture layout, so they can draw relevant conclusions. This information is useful to prepare regardless, as you will need to include it in your report. The **Checklist** includes the following fields:

- **Date:** This is useful if you intend to compare the same activity over time.
- **Activity name:** This is so you can compare different activities at your organisation.
- **Technique:** The main technique used by the child, such as collage, or printing. Please note, if your activity includes mixed artforms, such as music or storytelling, please try to separate the data: you should record what happens during the visual art section only.
- **Materials:** This helps to compare the effects of using different materials, both within your organisation, and between organisations. Others can see if their participants have the same experiences when using the same materials. If not, there might be a different factor which explains the variation and this understanding can help arts organisations tailor activities to be better suited to their participants. You should record what the child uses during the observed 5-minute period.

Family details

- **Child age:** As discussed above, be careful not to accidentally identify a child if they are the youngest or oldest in a group. However, recording approximate age will help you make developmentally appropriate judgements in your analysis. Round up or down to the nearest year, or use a decimal point: for example, if you estimate 3-4 years, record this as 3.5. This will help you calculate age ranges later on.
- **How many adults?** This sometimes affects your observation if there is more than one adult interacting with the child. You are recording the child's experiences, so if these occur through more than one adult's interactions then they are still to be recorded.
- **How many siblings?** If a lone parent is supporting more than one child they may be distracted during your observation period. Try to observe the pair once the parent shifts their focus back if possible.
- **Notes:** Observers often feel compelled to add notes about exciting moments! The space is limited in order to reduce the amount of data entry later, but this section can be a great source of qualitative contextual data.


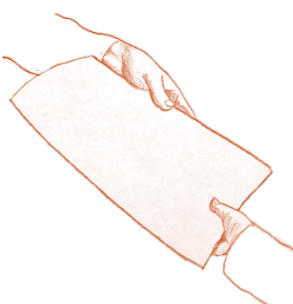

Experiences

The **Checklist** is grouped into Making, Interacting, and Engaging for ease of reference in the live observation.

- **Experiences:** The first column describes the key experiences a child might have, such as "The child experiences sensitive interactions".
- **Examples:** The examples listed in the next columns can be ticked if they are observed, or a different example noted in the final column.

We only count once for each experience, so even if three examples are given for "Sensitive interactions" you would only score a 1 to indicate that experience was observed. The examples are given so that you can, if you wish, pick apart the experience in more detail, and discuss *how* a child and parent worked together. An example of a completed **Checklist** is on the following page:

Date: 18 th March 2023		Activity name: Family Art Lab		Technique: Collage landscapes		Materials: Coloured paper, glue sticks, vinyl stickers	
Child age: 4	How many adults? 2	How many siblings? 1	Notes: Child explained activity to younger sibling while parent collected materials.				

	Child experiences:	Example A:	✓	Example B:	✓	Example C or notes:
MAKING 	Choosing and asking	Chooses materials or task	✓	Asks carer for help		
	Sensory enrichment	Explores a material or texture		Explores a tool	✓	
	Fine motor skills	Draws (pencils/brushes etc.)		Cuts with scissors	✓	
	Gross motor skills	Gestural mark-making		Standing, changing position		
INTERACTING 	Help achieving goal	Carer passes materials	✓	Carer assists making		
	Sensitive interactions	Carer follows child's lead		Problems solved together	✓	
	'Conversations'	Mutual eye contact		Taking turns (verbal/physical)	✓	
	Affirmation of actions	Carer offers encouragement	✓	Carer offers praise		
	Positive touch	Cuddled or stroked		Painting each other's skin		
	Listening to language	Carer explains activity		Carer names materials		
	Literacy & numeracy	Uses activity vocabulary	✓	Counts objects or marks		
ENGAGING 	Interest	Focussed on activity	✓	Asks questions		
	Enjoyment	Smiling, laughing, joyful gesture	✓	Excitement or anticipation		
	Having an impact	Notices marks they've made		Pleased with own work	✓	

What to look for

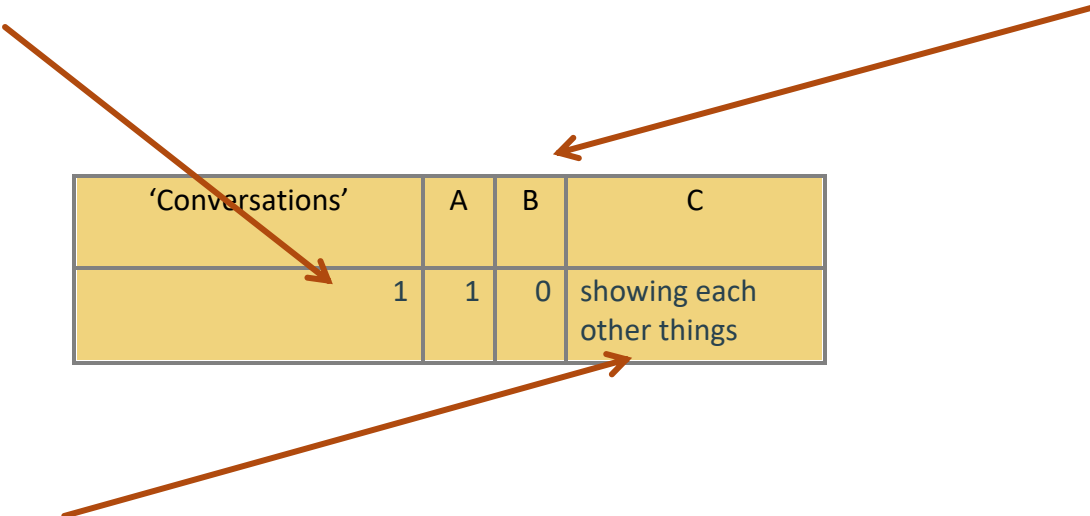
Checklist Group	Experience	Description of examples
Making	Choosing and asking	The child is selecting colours or materials, initiating activity, or asking carer for help.
	Sensory enrichment	The child explores sensory materials, textures, or seems engrossed with exploring a new tool.
	Fine motor skills	The child is using small tools such as pencils, crayons and scissors.
	Gross motor skills	The child makes large gestural marks, involving a whole body movement, or changes position to work.
Interacting	Help achieving goal	Carer helps the child achieve their goal by passing materials, or assisting. N.B. Do not tick if the carer takes control of an activity without the child signalling a desire to be helped.
	Sensitive interactions	The carer follows the child's lead, and problems are solved together. This may include soothing distress over messy materials in some cases.
	'Conversations'	The child is creating together with their carer. There is turn-taking, or mutual eye contact, or they are showing each other things.
	Affirmation of actions	Carer offers encouragement, or praises child's demonstrations of agency – e.g., "You cut that yourself!"
	Positive touch	The child receives cuddles or strokes from carer. Mutual experiences such as painting each other's skin.
	Listening to language	The child is offered opportunities for language development: the carer explains the activity or materials.
	Literacy and numeracy	The child repeats activity-specific vocabulary or talks about their experience. The child counts objects or marks, or discusses shapes.
Engaging	Interest	The child is focused on the activity, or asks questions.
	Enjoyment	The child is smiling, laughing or gives a joyful gesture. The child is excited when a material is introduced.
	Having an impact	The child notices the cause-and-effect of their mark-making, or seems pleased with their work.

Scoring table

Enter your scores into the **Scoring table** as soon as you can after the session. This is provided as an Excel file, which you can download from arttogether.uk/scoring-table, with formulae to help calculate totals. Each **Checklist** is entered across one ROW of the spreadsheet, as follows:

Date	Activity name	Technique	Materials	Child age	How many adults?	How many siblings?	Notes
01.01.2000	Messy Play	Printing	Paint, paper, bubblewrap	2	1	0	Child was very interested in watching peers

If the Experience was observed, enter a 1, if not enter a 0. Each experience column also has three Example columns (ABC):



'Conversations'	A	B	C
1	1	0	showing each other things

Column C is where you enter the qualitative notes: this will help when you come to interpret your data.

The domains are labelled with colours, and each row has a total out of 14 for each child. The range of total scores in your activity is of interest: is there a broad range within the group, or do most children have a similar experience?

For your reference, here are the child's experiences arranged by *domain*, with the original checklist group. Remember, the **Checklist** groups (Making, Interacting and Engaging) are used to make the live observation simpler, but are not included in your final analysis.

Domain	Experience	Checklist Group
Agency	Choosing and asking Affirmation of actions Having an impact	Making Interacting Engaging
Development	Sensory enrichment Fine motor skills Gross motor skills Listening to language Literacy and numeracy	Making Making Making Interacting Interacting
Engagement	Interest Enjoyment	Engaging Engaging
Relationships	Help achieving goal Sensitive interactions 'Conversations' Positive touch	Interacting Interacting Interacting Interacting

Analysis and interpretation

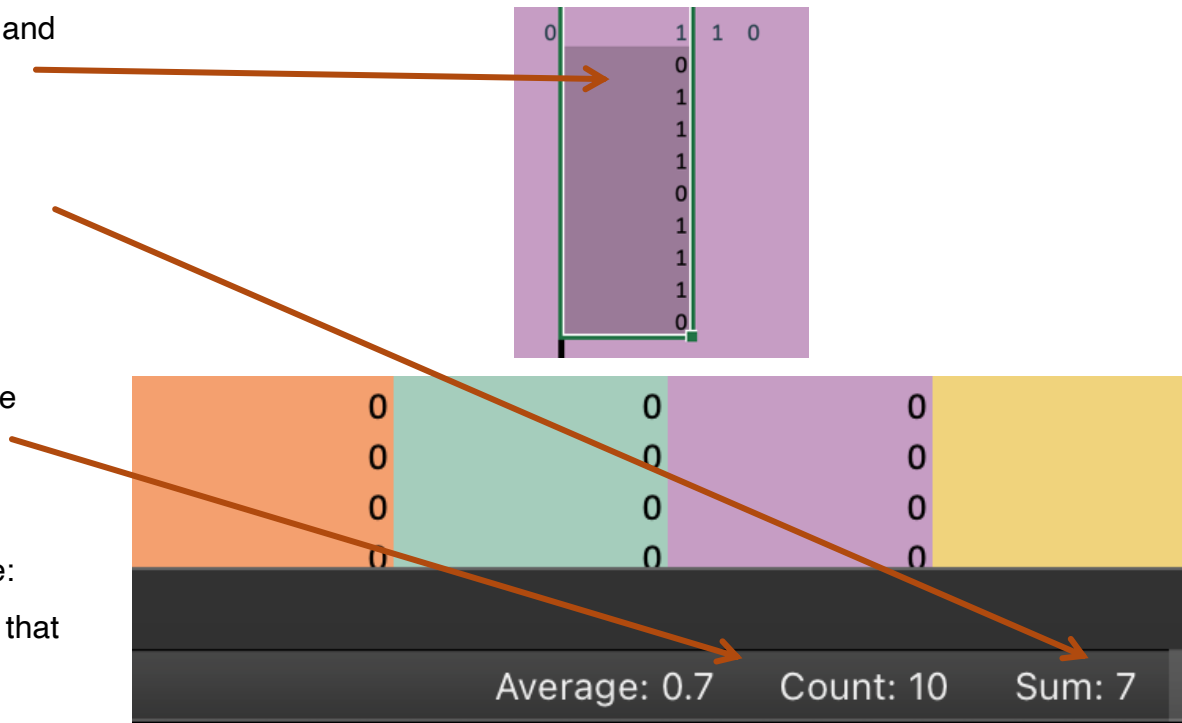
What you conclude from your data will depend on what your research question was. If you were exploring one activity to find out *what* experiences the children were having, then you might look first at the number of instances of each experience. This is a simple frequency analysis.

For each Experience column (such as 'Choosing and asking') select all the 1s and 0s.

The **Sum** will appear at the bottom of the sheet.

The **Average** figure gives you the proportion of the total children (**Count**) who experienced it.

Remember to multiply by 100 to get a percentage:
Average 0.7 means 70% of your participants had that experience.



Make a note of these in the **Summary table** (illustrated below) and do the same with the next experience column.

Domain	Experience	Total	Frequency %
Agency	Choosing and asking		
	Affirmation of actions		
	Having an impact		
Development	Sensory enrichment		
	Fine motor skills		
	Gross motor skills		
	Listening to language		
	Literacy and numeracy		
Engagement	Interest		
	Enjoyment		
Relationships	Help achieving goal		
	Sensitive interactions		
	'Conversations'		
	Positive touch		

At this stage, you have enough to report the following example:

“In Messy Play, we observed 32 children, with 40 adults. The most common domain experienced was agency: 81% of children had opportunities to choose materials, initiate activity or ask for help, 91% experienced parental encouragement of their actions, and 66% experienced the cause-and-effect of their actions. The average individual child score for Messy Play was 10/14.”

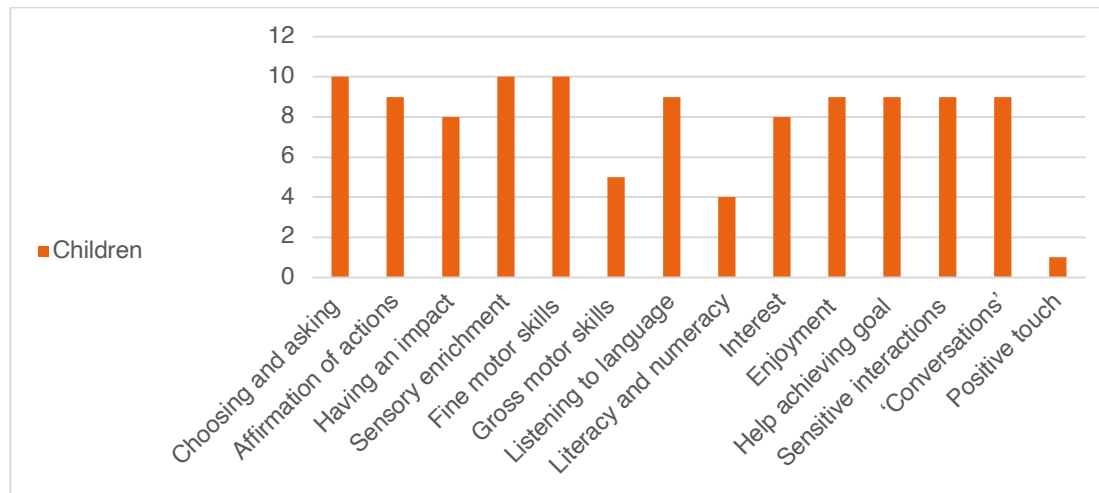
However, you may want to look at *how* the children experienced agency, in which case your Examples ABC are a valuable source of qualitative data. You may find, for example, that within ‘Choosing and asking’ most of the children experienced ‘Choosing materials’, but none of them ‘Asked their carer for help’. This kind of detail will help you to examine how a particular activity functions with young children. In the example above, you would pair your knowledge of the activity to propose explanations of why the children didn’t ask for help. For instance, it may be that the activity was very simple and the children seemed competent, or it may be that it seemed too complex and the carers all took a directive position from the outset, such as cutting a shape from a piece of coloured card that the child chose. Your conclusions must stem from the observations, and so if you offer a *speculative* reason, say so.

You may want to compare the data from two (or more) different groups, for example, Family Art Lab compared to Messy Play. However, as there are several factors to consider (such as age range, activity, facilitator’s personality, etc.) you must be careful when making conclusions: you won’t be able to state that an observed difference is solely due to the activity type.

Writing and sharing your report

Hopefully, your analysis will have shown how your activities offer young children experiences in some of the domains that contribute to their social, emotional, cognitive, and motor development. To help the art sector increase the body of evidence in this area, you now need to write the results into a clear report and share it online. There are some excellent resources to help with this, including a single page overview by Creative and Credible (Daykin & Attwood, 2015).

- Start with a justification for your research question, and your organisational context.
- Include as much detail as possible about the activity, so that others can compare your results to their own.
- Describe the participants using the data you have recorded in your **Summary table**: number of children and adults, approximate age of the children, and any contextual information, such as how the participants became involved (whether they booked the activity online, or were an invited community group, for example). Make sure that no one can be identified in your description.
- Describe the process of using this toolkit, including how many observers were involved.
- Present your results. You could use the “Insert Chart” function of Microsoft Word to present the data visually, or use tables (both examples are given in the **Report example**):



- Discuss your analysis, and then make some conclusions from your results. Is there a question left unanswered? If so, include it as a recommendation for future research, either for yourself, or for others to pursue.

We have provided a [Report example](#), which you could adapt with your own details. In addition, please consider sharing your findings with us through a simple form on our website arttogether.uk. This site is managed by Art at the Start researcher, Holly Rumble. She will collate and regularly publish these findings on the site, to build a collective body of open access data.

Further reading:

A simple guide to sharing your research:

Daykin, N., & Attwood, M. (2015). Reporting and Dissemination. *Creative and Credible*. Online resource.

http://creativeandcredible.co.uk/wp-content/uploads/2015/07/CreativeCredible_Reporting-and-dissemination.pdf

Flowchart

In advance

- Decide research question
- Prepare **Participant information sheets** and online text



In the session

- Distribute **Participant information sheets** and speak to participants
- Provide opt-out option
- Make observations with **Checklists**



After the session

- Transfer data from **Checklists** to **Scoring Table**
- Destroy paper **Checklists**
- Complete **Summary Table**



Write **report** and share your research on **arttogether.uk**

How long will it take?

Our test period at Dundee Contemporary Arts revealed that it takes approximately 20 minutes to print the **Participant information sheets** and **Checklists** and talk to participants before an art session. This is best combined with completing a register on entry to the space. Parents may be flustered on arrival and it is simpler to have one point of contact for both tasks.

One observer can typically complete about 6-8 **Checklists** in an hour, to allow for additional notes or moving around the room.

It takes 4-5 minutes to transfer data from one paper **Checklist** to the **Scoring table** spreadsheet after the session (depending on number of additional example notes).

Therefore, to set up, record, and transfer up to 8 observations, you will need to employ an observer for 2 hours. For consistency, it is best to use the same observer in all the sessions if possible, as there may still be some subjectivity in recording the observations.

Toolkit resources

Participant information sheet

Hello!

We are undertaking research into the impact of our activities on children's social wellbeing.

We are seeking your permission to:

Observe you and your child for 5 minutes in today's activity.

Use a checklist to **record** any positive developmental experiences.

You can **change your mind**: let us know before the observer finishes.

Your data will be:

Anonymous, so cannot be withdrawn after the session.

Transferred to a spreadsheet on our **secure** server, and paper checklists destroyed.

Aggregated to form part of an anonymous dataset on **arttogether.uk**.

The research will be:

Conducted by [name of staff and contact details]

Used to [inform our future programme/report to our funders/provide evidence of the benefits of this activity to the sector].

Shared [on our website/by contacting the researcher].

IF YOU DO NOT WISH TO TAKE PART PLEASE SPEAK TO THE OBSERVER.

Participant information (expanded online text)

We are undertaking research into the impact of our activities on children's social wellbeing.

We would like to observe you and your child for 5 minutes, as you take part in [name of activity]. If you agree, we will use a checklist to record any times we can see positive experiences that may affect your child's development. The checklist will be available to view at the start of the session.

You can withdraw from the observation at any point before it finishes. After the checklist has been completed it will be anonymous, so we may not be able to withdraw the data after this point.

The anonymous data will be transferred to a spreadsheet on our server, which is stored securely. The paper checklists will then be destroyed. All observations will be aggregated to form part of an anonymous dataset on arttogether.uk. This will allow other researchers to analyse the impact of a broad range of activities from multiple arts organisations.

The research will be used to [inform our future programme/report to our funders/provide evidence of the benefits of this activity to the sector].

You will be able to read the report [on our website/by contacting the researcher].

The research will be conducted by: [name of staff and contact details]

You can also contact: [second staff contact details]

If you do not wish to take part in our research please speak to the observer at the start of the session to indicate your preference. Thank you!

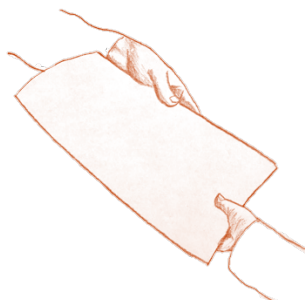
Date:		Activity name:		Technique:	Materials:
Child age:	How many adults?	How many siblings?	Notes:		

MAKING



Child experiences:	Example A:	✓	Example B:	✓	Example C or notes:
Choosing and asking	Chooses materials or task		Asks carer for help		
Sensory enrichment	Explores a material or texture		Explores a tool		
Fine motor skills	Draws (pencils/brushes etc.)		Cuts with scissors		
Gross motor skills	Gestural mark-making		Standing, changing position		

INTERACTING



Help achieving goal	Carer passes materials		Carer assists making		
Sensitive interactions	Carer follows child's lead		Problems solved together		
'Conversations'	Mutual eye contact		Taking turns (verbal/physical)		
Affirmation of actions	Carer offers encouragement		Carer offers praise		
Positive touch	Cuddled or stroked		Painting each other's skin		
Listening to language	Carer explains activity		Carer names materials		
Literacy & numeracy	Uses activity vocabulary		Counts objects or marks		

ENGAGING



Interest	Focussed on activity		Asks questions		
Enjoyment	Smiling, laughing, joyful gesture		Excitement or anticipation		
Having an impact	Notices marks they've made		Pleased with own work		

Summary table

Organisation:					
Activity name:					
Techniques:					
Materials:					
Contextual notes:					
Age range observed:					
Total children observed:		Total with siblings:		Total adults:	

Domain	Experience	Total	Frequency %
Agency	Choosing and asking		
	Affirmation of actions		
	Having an impact		
Development	Sensory enrichment		
	Fine motor skills		
	Gross motor skills		
	Listening to language		
	Literacy and numeracy		
Engagement	Interest		
	Enjoyment		
Relationships	Help achieving goal		
	Sensitive interactions		
	'Conversations'		
	Positive touch		

Report example

The following report was written using data gathered during the test period of the Art Together Toolkit at DCA, in Spring 2023. It includes the relevant subheadings you may find useful when writing your own report, and an example of how the children's experiences might be described.



How does the family learning programme at Dundee Contemporary Arts support young children's social, emotional, cognitive and motor skill development?

Holly Rumble, Sarah Derrick, Divya Jindal-Snape, & Josephine Ross

Dundee Contemporary Arts has delivered arts workshops for children and families for over 20 years. The Learning staff have witnessed participants' positive experiences over that period and collected feedback in the form of written comments from participants, and feedback from artists and staff delivering the sessions. However, there has never been a consistent attempt at recording the impact of these public activities using a structured method. In January 2023 DCA trialed an observational tool, designed by Art at the Start, to record the psychological impact of public art workshops for families with young children.

The checklist provides a framework for recording children's experiences in four domains that contribute to their psychological wellbeing: agency, relationships, engagement and development. Recording the presence of these experiences can indicate how art activity might help young children to develop their social, emotional, cognitive, and motor skills. Most importantly, these experiences are affected by the quality of the interactions a child has with their parent/caregiver, and so the checklist looks at the child and adult holistically. The domains are as follows:

- **Agency:** This refers to the child's developing awareness of their autonomy: their ability to affect change on the world around them. This awareness of themselves as a distinct entity to others is necessary for developing social cognition.
- **Relationships:** The quality of the child's relationship with their parent/caregiver has long-term implications for their mental wellbeing. Sensitive and responsive interactions can support the child to develop a secure attachment relationship, which is associated with social competence in later life.
- **Engagement:** Expressions of pleasure, enjoyment, interest and concentration are indicators that the child is engaged in the art activity. Pre-schoolers' active engagement in tasks is associated with the ability to self-regulate emotions.
- **Development:** Cognitive and physical development includes gross and fine motor skills, numeracy, and opportunities for language development.

Our research question was: How does DCA's family learning programme support young children's social, emotional, cognitive and motor skill development?

Method

Four observers recorded the experiences of 10 children with 9 adults in two Family Art Lab sessions, and 32 children with 40 adults in five Messy Play sessions from January-April 2023. Children in Family Art Lab were estimated to be 18 months-10 years old (average 5 years), and Messy Play 0-3 years old (average 16 months).

Family Art Lab sessions were suitable for all ages and aimed to “offer time and space to get making as a family, with creative activities led by local artists” (DCA website). The two-hour session themes responded to the exhibition programme, and families were invited to tour the galleries before returning to the Create Space for their practical activity. Families could leave or come and go as needed. Activities were introduced on an individual basis by the artist, and participants were encouraged to follow their own interests within the materials and prompts provided. Techniques were primarily two-dimensional, such as collage and painting. Messy Play sessions were suitable for infants 0-3 years old, with their primary caregiver, and were facilitated by an art therapist. The sessions were open-ended and sensory, and included playing with textures and objects, in addition to ‘messy’ techniques such as painting and printing. Sessions were one hour, but many families began washing their child after 45 minutes. All participants booked their sessions in advance. Both activities were free of charge.

Before the start of each session, participants were welcomed at the entrance to the space and asked if they would like to take part in the research. It was explained that the observations would be anonymous, voluntary, and that they could withdraw consent during the session if they changed their mind. They were offered a copy of the participant information sheet for reference. Observations were conducted for five minutes per child, using the ‘Art Together Toolkit’ (Rumble et al., 2023) which comprises checklist options for recording positive experiences from the child’s perspective (see Table 1). If the experience was observed, the specific example was ticked, or a note made to describe an alternative example of that experience. These anonymous checklists were entered into a spreadsheet, which calculated the frequency with which they occurred in the group. These frequencies are presented in Figures 1 and 2. A few caregivers or parents declined to participate but the overall response was of interest and positivity towards the research aims and several parents were keen to receive the final report.

Table 1*Experiences on Art Together checklist*

Domain	Experience	Description
Agency	Choosing and asking	The child is selecting colours or materials, initiating activity, or asking carer for help.
	Affirmation of actions	Carer offers encouragement, or praises child's demonstrations of agency – e.g., "You cut that yourself!"
	Having an impact	The child notices the cause-and-effect of their mark-making, or seems pleased with their work.
Development	Sensory enrichment	The child explores sensory materials, textures, or seems engrossed with exploring a new tool.
	Fine motor skills	The child is using small tools such as pencils, crayons and scissors.
	Gross motor skills	The child is making large gestural marks, involving a whole body movement, or changes position to work.
	Listening to language	The child is offered opportunities for language development when the carer explains the activity or names materials.
	Literacy and numeracy	The child repeats activity-specific vocabulary, or talks about their experience. The child counts objects or marks, or discusses shapes.
Engagement	Interest	The child is focused on the activity, or asks questions.
	Enjoyment	The child is smiling, laughing or gives a joyful gesture. The child is excited when a material is introduced.
Relationships	Help achieving goal	Carer helps the child achieve their goal by passing materials, or assisting.
	Sensitive interactions	The carer follows the child's lead, and problems are solved together. This may include soothing distress over messy materials in some cases.
	'Conversations'	The child is creating together with their carer. There is turn-taking, or mutual eye contact, or they are showing each other things.
	Positive touch	The child receives cuddles or strokes from carer, or a mutual experience such as painting each other's skin.

Results

Family Art Lab

In Family Art Lab, we observed 10 children, with 9 adults. Most of the children experienced agency (see Table 2 and Figure 1): 100% had opportunities to choose materials, initiate activity or ask for help, 90% experienced parental encouragement of their actions, and 80% experienced the cause-and-effect of their actions. Most of the observed children had experiences which supported the parent-child relationship and social wellbeing, with the exception of 'Positive touch'. In this domain, Family Art Lab was effective in encouraging conversations (in the form of showing each other things), sensitive interactions (in the forms of following the child's lead and joint problem solving), and 90% of children had help achieving their goal, through their carer passing materials or assisting making. Fine motor skills, and sensory enrichment were experienced by all children, and 90% had an opportunity to listen to spoken language. Engagement was demonstrated in most of the observations. The average individual child score for FAL was 11/14 experiences, and the range for the group was 8-12. Two main techniques were offered: painting and collage (Table 3).

Table 2

Children's experiences of Family Art Lab

Domain	Experience	Total	Frequency %
Agency	Choosing and asking	10	100
	Affirmation of actions	9	90
	Having an impact	8	80
Development	Sensory enrichment	10	100
	Fine motor skills	10	100
	Gross motor skills	5	50
	Listening to language	9	90
	Literacy and numeracy	4	40
Engagement	Interest	8	80
	Enjoyment	9	90
Relationships	Help achieving goal	9	90
	Sensitive interactions	9	90
	'Conversations'	9	90
	Positive touch	1	10

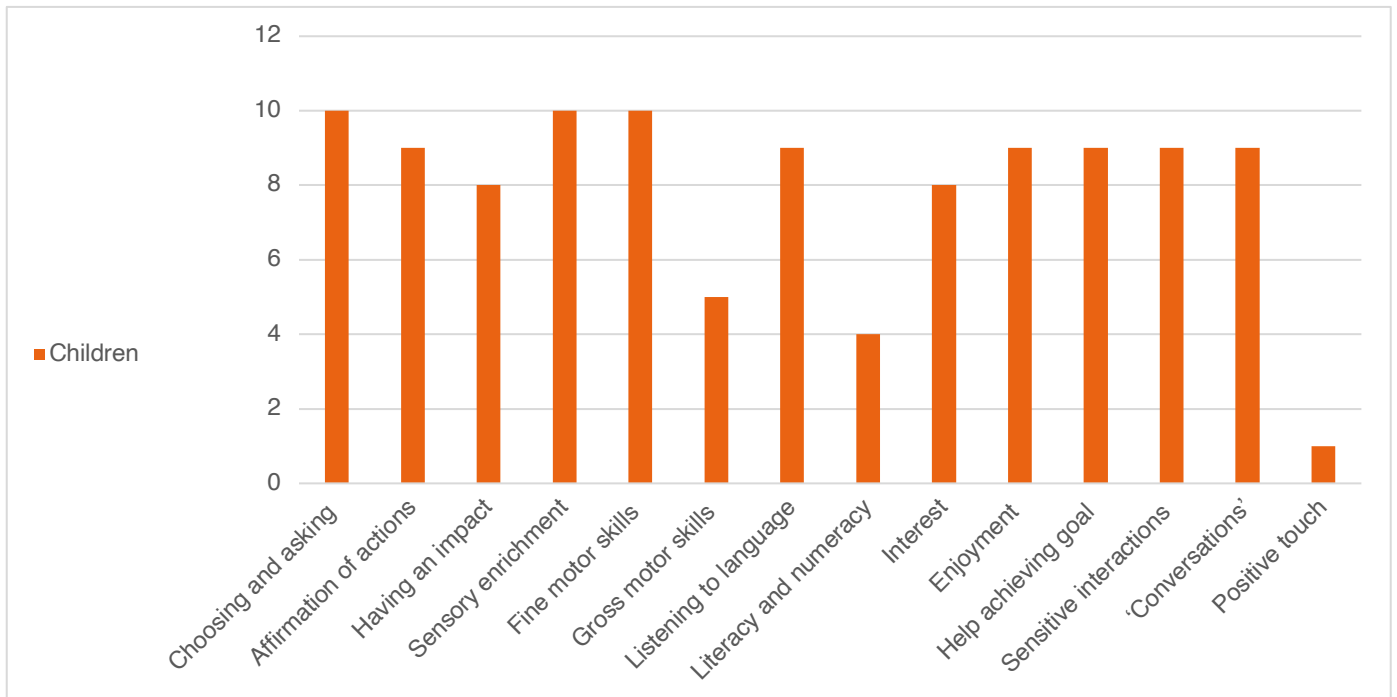


Figure 1
Experiences observed in Family Art Lab

Table 3
Techniques and variation in individual materials in Family Art Lab sessions

Technique	Materials
Painting and collage	Brush, paint, paper Paint, card, ruler, brushes Sponge, brush, paint, water, paper Paper, scissors, gluesticks, felt pens Paint, rulers to scrape, paper Watercolours and tape, paint, paper
Collage	Paint, card, paper Paper, scissors, card and vinyl Paint, card, gluesticks, pens

Messy Play

In Messy Play, we observed 32 children, with 40 adults. The most common experience was Sensory enrichment (94%, see Table 4 and Figure 2), which supports cognitive development. The development of agency was supported: 81% of the observed children had opportunities to choose materials, initiate activity or ask for help, 91% experienced parental encouragement of their actions, and 66% experienced the cause-and-effect of their actions. Most of the children had experiences which supported the parent-child relationship and social wellbeing, such as receiving help, mutual eye contact, and taking turns. The average individual child score for Messy Play was 10/14 experiences, and the range for the group was 3-14. All five sessions included paint and sensory textures (Table 5).

Table 4

Children's experiences of Messy Play

Domain	Experience	Total	Frequency %
Agency	Choosing and asking	26	81
	Affirmation of actions	29	91
	Having an impact	21	66
Development	Sensory enrichment	30	94
	Fine motor skills	12	38
	Gross motor skills	25	78
	Listening to language	28	88
	Literacy and numeracy	9	28
Engagement	Interest	19	59
	Enjoyment	24	75
Relationships	Help achieving goal	27	84
	Sensitive interactions	25	81
	'Conversations'	26	81
	Positive touch	19	59

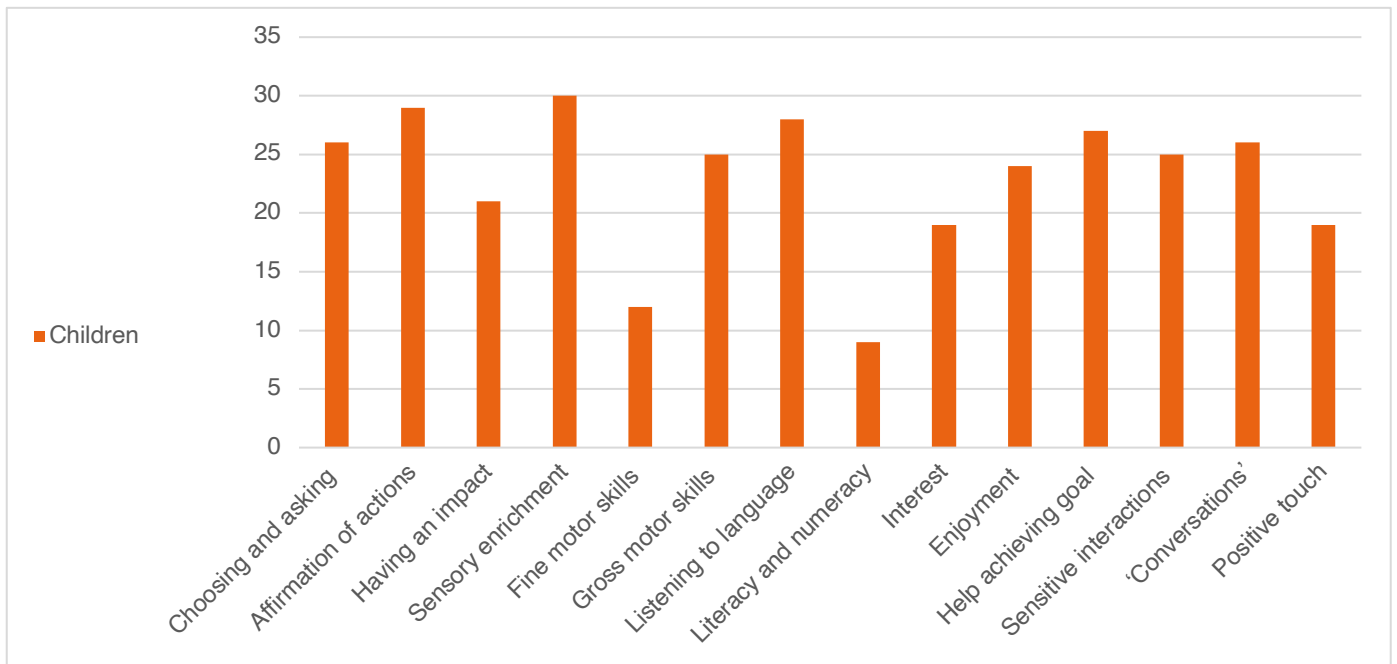


Figure 2
Experiences observed in Messy Play

Table 5
Techniques and variation in individual materials in Messy Play sessions

Technique	Materials
Painting	Paint/paper Cardboard, sticky paper, paint, brushes, sponge Brush, paint, paper Sponge, paint, brushes, paper Paint, paper, shaker Paint, scarves
Printing and exploring textures	Crayon, paper, paint, bubblewrap and textured rubber for printing Paint, paper, bubblewrap Paint, brushes, paper Paint, paper, brushes, rubber sheets Building blocks, crayons, paper, large padded snake sculpture
Painting	Toys, balls, paint, paper (child variations not recorded)
Textures	Paint (child variations not recorded)
Textures	Chalks, card, paint, crayons (child variations not recorded)

Discussion

In Family Art Lab sessions, all children were observed to experience choosing, sensory enrichment, and fine motor skills. This suggests that both the materials provided, and the arrangement of activity 'stations' which children collected them from, were effective in encouraging agency, cognitive and motor development. Most of the 14 checklist experiences were observed in 80-100% of the children, with the following main exception: only one child experienced positive physical contact with their carer, but this is attributed to the generally older age range of participants in this activity. The child was the youngest of the group, at 18 months, like the Messy Play participants (where 59% experienced physical touch). Positive physical touch is important in infancy, to help the child to regulate their emotions (e.g., Feldman, 2007). The ability to self-regulate typically develops at around 3 years. It is therefore still a valuable experience to record in activities with a range of ages. However, it would contribute to a misleading total for the 'Relationships' domain, as the other three experiences in that group were all observed in 90% of the children. For this reason, domain totals are not reported.

In Messy Play sessions, the children were primarily supported to experience agency, and to share positive interactions with their carer. However, there were four children whose carers did not follow the child's lead, and instead used the session to attempt hand or footprints as a 'product'. This suggests that the addition of a specific introduction to child-led approaches at the start of each session might ensure that all carers engage with their children with the same context in mind.

A smaller number of observations indicated that the sessions supported engagement, of which enjoyment was the most common. Eight of the younger children were observed to be more interested in other children than in the activity, which might indicate that the environment is distracting when busy. The Messy Play sessions also supported cognitive and motor development, where the main experience recorded was sensory enrichment. The provision of wet and dry textures in all the sessions encouraged the children to play and explore. When not engaging with the art materials, many children moved onto the adjacent toys and blocks, which provided a different sensory experience. Only two children were not observed to experience sensory enrichment, and in both cases it was reported that the children were tired or shy. This seemed related their overall score, as both children only scored 3 or 4 compared to the group average of 10 experiences. External factors such as mood are therefore important to note but may not necessarily be the cause of a low score: conversely, another child was apparently suffering from painful teething, but this made no impact on their complete score of 14.

This study was limited by non-attendance in two scheduled Family Art Lab sessions, which reduced our observations for that age group. With a larger sample size, it might be possible to

determine if it is acceptable or desirable to omit the 'Positive touch' checklist item for activities aimed at children over 3 years old. In Messy Play, several children were accompanied by more than one adult, which might affect the observed interactions when measured over a larger sample. We also noted a small difference in the amount of detail our observers chose to record across all sessions. This suggests that in future it would be preferable to allocate equal observation sessions to each observer to avoid accidentally introducing bias.

Conclusion

DCA's family learning programme provides experiences which support the development of young children's social, emotional, cognitive and motor skills. Family Art Lab appeared to provide a consistent positive experience for most of the participants, with a very small variation between individual scores. In contrast, Messy Play sessions had a large variation in the number of experiences observed across the group, suggesting that other factors may contribute, including mood, number of adults or siblings accompanying, and developmental differences between young infants and 3-year-old children. With a greater number of observations these factors will be easier to isolate. As a result of this test activity, we encourage other visual arts organisations to use the Art Together Toolkit and share their data, to add to greater collective understanding in the sector.

References

- Feldman, R. (2007). Parent–infant synchrony and the construction of shared timing; physiological precursors, developmental outcomes, and risk conditions. *Journal of Child Psychology and Psychiatry* (48)3/4, 329–354, doi:10.1111/j.1469-7610.2006.01701.x
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Designed by Holly Rumble (2023).

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