A Cat Escapes Evaluation

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This evaluation was commissioned by Coney and undertaken as part of the *Creativeworks London* 'PhD in Residence' scheme. It focuses on *A Cat Escapes*, an example of Coney's programme of "Adventures in Learning" (outlined below). Field work for the evaluation was carried out in a London primary school between October and December 2013.

Adventures in Learning

"Adventures in Learning are interactive stories that take place in the classroom to motivate formal learning. They're made with all the attention to detail and artistic values that characterises Coney's work for adults, but are constructed in close collaboration with teachers to create an engaging narrative framework within which learning can be delivered. Using online communications, performance, pervasive technology and the Royal Mail we deliver a call to adventure that allows pupils to become heroes in their own story."

(see http://coneyhq.org/learning-participation/adventures-in-learning/)

A Cat Escapes

"This six week project begins when a mysterious package arrives in the classroom with a call to adventure from Varjak Paw himself. The story unfolds across six episodes, each built around a different curriculum topic and using a blend of theatre, email and Royal Mail. Pupils engage with A Cat Escapes as a piece of storytelling whilst simultaneously completing many of their core learning objectives for the term."

(see http://coneyhq.org/2012/01/18/a-cat-escapes/)

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1 Summary of Key Findings

- Overall, pupils in the study group produced notably **higher quality work** in the final assessment suggesting a **significant impact** from the "adventure in learning".
- In the area of "fantastical problem-solving" the average score of pupils from the study
 group was more than double that of those in the comparison group. This suggests that
 this kind of creative thinking was an important element within the "adventure in
 learning".
- The average "cross-curricular" score for the study group was 4.57 out of 5, compared with 2.29 out of 5 for the comparison group. This, along with evidence from observations and recordings, suggests that the "adventure in learning" experience has a considerable effect in promoting cross-curricular thinking.
- The "adventure in learning" facilitated the development amongst pupils of particularly creative thought pathways and these appeared to be rooted in two key features of the experience:
 - the ability of the teacher to maintain a degree of "plausible pedagogic ignorance", thereby stimulating more open and engaged questioning and reasoning on the part of pupils;
 - ii. the **ambiance of possibility** created by serious engagement with the fantastic, thereby **stimulating and legitimising cross-genre reasoning**.
- While whole-class discussions were characterised by this ambiance of possibility, peer interaction during group work tended to be more critical. This promoted a different aspect of the creative process as the value of ideas in relation to a specific purpose were hammered out.
- The reliance on the classroom teacher for the vast majority of the delivery of the
 "adventure in learning" was a key strength of the experience as she was able to
 improvise and adapt activities according to her excellent understanding of the pupils'
 existing knowledge and learning needs. However, as the teacher involved in this study
 was an exceptionally skilled practitioner this raises considerations about how best to
 ensure such high quality delivery is replicated in less ideal circumstances.

2 Objective

 To build an evidence base for the impact of responsive narrative adventures within formal learning.

3 Data and Method

This evaluation sought to examine specific outcomes of the *A Cat Escapes* project as well as investigating the processes behind them. As such a mixed methods approach was adopted encompassing both quantitative and qualitative data. This entailed:

- observation of pupils in the study group during lessons both before and throughout the project, spanning a period of 3 months;
- audio recordings of a variety of pupils using a lapel microphone both before and throughout the project;
- a written assessment completed by the study group at the end of the project, as well as by a comparison group made up of an equivalent class in a neighbouring school (see appendix A).

4 A Note on Creativity

As expressed in the summary of key findings, creativity emerged as a key element within the project and therefore a major focus within this evaluation. In order to contextualise the discussion of creativity which follows, it is useful to set out some theoretical considerations relevant to this term. The report 'All Our Futures: Creativity, Culture and Education' (1999) from the National Advisory Committee on Creative and Cultural Education (NACCCE) sets out a definition of 'democratic creativity' which 'recognises the potential for creative achievement in all fields of human activity; and the capacity for such achievements in the many and not the few' (p30). This is in direct contrast to the 'sectoral definition' which is directly linked to 'creative arts' and 'creative industries' (p28) and the 'élite definition' which 'focuses on the great men and women who have produced or made path-breaking compositions, paintings, inventions or theories' (p28). Creativity can therefore be seen as relevant across the full range of disciplines and scales of activity. This is particularly important considering the significance it can hold for learners. As the NACCCE write, '[w]hen individuals find their creative strengths, it can have an enormous impact on self-esteem and on overall achievement' (p6).

What then does creativity look like within the classroom? The NACCCE (1999) write:

'Creativity is not simply a matter of letting go. Serious creative achievement relies on knowledge, control of materials and command of ideas. Creative education involves a balance between teaching knowledge and skills, and encouraging innovation.' (p6)

They identify four key characteristics behind creative activity:

- i. imagination
- ii. purpose
- iii. originality
- iv. value

Creativity is therefore defined as:

'Imaginative activity fashioned so as to produce outcomes that are both original and of value.' (p30, original emphasis)

Central to this type of endeavour is some kind of suspension of disbelief. The NACCCE write:

'Deferment of judgment is an invaluable element as we produce ideas and then stretch them and connect them imaginatively as far as they can go. Although there is always a stage, maybe many stages, where critical appraisal is necessary, if only to assess coherence and relate ideas to evidence, practicability, utility and audience response, generative thinking has to be given time to flower. At the right time and in the right way, rigorous critical appraisal is essential. At the wrong point, criticism and the cold hand of realism can kill an emerging idea.' (p34)

Appropriate time and space are therefore required in order to foster creativity in the classroom. Craft (2001) writes that 'creativity may be impeded where there is undue time pressure, oversupervision, competition, or where choices are restricted and evaluation is expected' (p25). She warns of the negative impact that the 'tightening of control around both curriculum and pedagogy' (2003, p118) is having in this area. The organisation of learning is also key, and Craft raises the concern that 'where the curriculum is taught as discrete subjects, this may constrain learner and teacher creativity, in discouraging thinking about themes which cross the subject boundaries' (p119). Working against this institutional rigidity the role of the teacher is paramount. Jeffrey & Craft (2004) write that 'the relationship between *teaching creatively* and *teaching for creativity* is an integral one. The former is inherent in the latter and the former often leads directly to the latter' (p90, original emphases). Investigating creativity in the classroom then requires close examination both of learners and the teacher, as well as the nature of interactions between them.

5 Written Assessment Data

Pupils in the study and group completed the written assessment after the project had finished. Pupils in the comparison group completed the assessment around the same time, although they had not experienced *A Cat Escapes*. The assessment did not cover any of the content of *A Cat Escapes* but it did give pupils an opportunity to use the kind of creative and cross-curricular skills they may have picked up.

5.1 Structure of the assessment and marking criteria

The assessment involved writing an email giving instructions on how to cross the "Land of Many Tales". Pupils were given a map and a sheet of instructions with a table to help them plan their answer (see appendix A). Pupils' writing was marked according to the following equally weighted criteria:

Descriptive Fantastical **Technical Email format Directions** writing problem-solving problem-solving (4 marks) (4 marks) (4 marks) (4 marks) (4 marks) greeting and sequencing range of •up to 2 ideas, 1 •up to 2 ideas, 1 sign-off adjectives mark for each mark for each terms and a second and a second introduction simile/ metaphor compass mark for mark for concluding directions or •more than one originality or originality or sentence left/right sense technical detail technical detail detail to support appropriate tone interesting detail directions for classmate extra tips

5.2 Headline Scores

Measure	Study group	Comparison group
Mean overall score (%)	56.4	33.6
Mean score for "fantastical problem-solving" (out of 4)	2.29	1
Mean "cross-curricular" score (out of 5)	4.57	2.96

5.3 Explanation of terms

Mean overall score

This is the mean average percentage score achieved by pupils across each of the groups.

Mean score for "fantastical problem-solving"

Pupils were awarded up to 4 marks for evidence of "fantastical problem-solving". Examples included ideas such as using a magic carpet to fly past the dragon, or feeding it ginger bread from the ginger bread house.

Mean "cross-curricular" score

The "cross-curricular" score reflects the number of the different marking criteria categories in which a pupil registered marks. A high "cross-curricular" score suggests pupils can sythesise knowledge, skills and ideas from different areas and genres in their writing.

5.4 Key points from the data

- There was a marked difference between the average scores of the study and comparison groups.
- Although the classes came from different schools and some of this variation will be rooted in the nature of the individuals concerned, the size of the disparities between the evaluation results suggests the experience of A Cat Escapes had a significant impact on the study group.
- The study group scored on average 22.8 percentage points higher overall than the comparison group.
- The study group gained more than twice as many marks for "fantastical problem-solving" than the comparison group.
- The study group had an average cross-curricular score of 4.57 out of 5 highlighting that most of these pupils were able to synthesise skills from a range of disciplines within their writing. The equivalent score form the comparison group was 2.96 out of 5.

5.5 Analysis of the written work

Differing trends were visible in the writing produced by pupils in the study and comparison groups. The main point, as suggested by the statistical data above, was that pupils in the study group were better able to synthesise ideas from different disciplines in their work. The examples below are indicative of the patterns which emerged.

Extract A (study group)

"First head north up to Ali Baba's cave and grab shiny, glowing gold. Next come back down Merlin's highway and climb Rapunzel's tower like in PE. After you've rescued her climb back down and head into the next forest swiftly and quietly otherwise the dragon will hear you."

This extract contains evidence of map skills ("head north") and a link to climbing skills learned in PE. The pupil also employs a technique of doubled descriptive terms ("shiny, glowing gold" and "swiftly and quietly") which the class had been working on in literacy lessons in the lead up to the project. The alliteration "glowing gold" and the simile "like in PE" are also examples of descriptive writing features which had recently been covered.

Extract B (study group)

"Go to the Seven Dwarves' cottage and ask them to help carry the tree back to the cottage to be cut. If they say no bribe them with the rest of the gold. Tie the planks of wood together with the vines to make a raft, with the thickest one you find use as a paddle. If the raft is groaning with the weight of you and Rapunzel get her hair and use it as a sort of lasso to grab the large green beanstalk across the river other to your side. Climb on it and of you see Jack clinging on for dear life, climb faster."

The recommendation "If they say no bribe them with the rest of the gold" is emblematic of the well integrated mixture of logical and fantastical reasoning in this pupil's answer. This is combined with a

high level of technical detail evidenced by "Tie the planks of wood together with the vines to make a raft, with the thickest one you find use as a paddle." The next sentences continue this combination of technical and fantastical reasoning, also adding in descriptive flourishes such as "groaning with the weight" and "clinging on for dear life".

Extract C (study group)

"Just to say, Rapunzel, who is a princess, has really long hair. Her hair is as long as an elephant's trunk. Then with your mobile phone, call the woodcutter to execute the dragon."

The use of commas in the first sentence can be traced back to a recent punctuation lesson but they are employed here very effectively within the endeavour of providing extra details for the instructions task. This is followed up with a simile ("Her hair is as long as an elephant's trunk."), a descriptive writing feature recently focused on in class. The final sentence provides an example of how the pupils felt able to mix genres, bringing in a mobile phone to a fairy tale context.

Extract D (comparison group)

"Go to the gingerbread cottage and ask for some gingerbread then go back to where you started do down Rumplestiltskin Road give the dragon the gingerbread. Keep going straight and you will pass the woodcutter's cottage and Little Red Riding House (sic) house then keep going straight but then you will see a river with a broken bridge."

This extract is typical of the more developed examples from the comparison group. It takes up the characters and places provided by the map and conveys coherent instructions but does not add any imaginative ideas. There is no mixing of genres.

Extract E (comparison group)

"Go past the woodcutter's cottage and past little Red Riding hood's house. And then ask the woodcutter to chop a tree down and put the tree across the Broken Bridge to get across the river and go on the bus."

Again, the instructions are adequate and there is evidence of technical problem-solving but it is lacking in any colourful descriptive features.

Extract F (comparison group)

"First you have to pass Ali Baba's cave then turn right to Rumplestiltskin road and pass a dragon what you can do to get past the dragon is you could get the spinning wheel from Sleeping Beauty's home then put dragon food on the pricks so the dragon can prick his finger then fall asleep for 18 years."

This extract gives a clear sense of the differences between the study and control groups. This student has shown flair in coming up with a very imaginative solution (unique across both groups) and might be expected to excel at a creative writing task. However, the imaginative contribution is confined within the fairy tale terms of reference and is not coupled with any descriptive writing features or mixing of genres.

Audio recordings were made in the lead up to and throughout the project. A range of students wore the lapel microphone over the course of the study, usually for a period of 1 to 2 hours at a time. Analysis of the audio data can provide a way into understanding the processes behind the patterns discernible in the written assessments. The extracts transcribed below are indicative of the kinds of interactions captured throughout the project.

Extract I

This extract comes from the very start of the project when the original package has just arrived in the school and is being discussed with the class. The teacher successfully adopts an approach which could be described as *plausible pedagogic ignorance* which has the effect of stimulating a deeper and more creative level of engagement with the mystery on the part of the pupils.

1	Teacher	did one of you leave a package outside for the class this morning?
2	Lucy ¹	was it you Lucy?
3 4	Teacher	I think I know who it was
5	Lucy	who do you think it was? I remember when I came in I saw someone pick (.) someone in Year R
6	·	pick up a leaf and put (.) and put it in a package that said Year 4
7	Teacher	so you think Reception did this?
8	Lucy	yeah
9 10	Teacher	but does it look like a reception child would do this Dan? ((lots of pupils say yes/no))
11		Dan (.) Dan (.) is your name Dan? Dan does that look like a reception
12		child's work?
13	Dan	yeah
14	Teacher	why do you think it looks like a reception child's work?
15	Dan	because (.) it's kind of (.) it's not very like a letter it's kind of messed up
16		and
17	Teacher	so it's a bit messy I mean the wrapping I don't think the wrapping's very
18		good (.) I think I could wrap better than that (.) I think all of you could
19		Leo do you think it's a reception child? (3) big loud voice you know I'm
20		going deaf
21	Leo	no
22	Teacher	no (.) why do you not think it's reception
23	Leo	because reception children can't tie knots
24	Teacher	'cause they can't tie that's very good thinking they might not be able to tie
25		a knot very well (.) now I still think it's one of you (.) I think one of you are
26	5 ''	trying to play a trick on us
27	Pupil	no (.) not me
28	Teacher	now I sat all morning during my little planning time having a little feel (.)
29 30		and it feels like (.) I don't know (.) like some kind of little book in there
31		but what I couldn't work out was why there'd be a leaf on the back it's a bit
32	Aisha	weird (.) Aisha what do you think it is? who do you think sent it and why? I think it's (.) um it's from Reception because reception kids' handwriting's
33	MISHA	not that neat and I think because we're learning about Autumn and (.) the
34		and the (.) we've been writing poems and one of the one of these people in
J -1		and the (.) we we been writing poems and one of the one of these people in

¹ All names have been changed to protect pupil anonymity

Mi Hailles III

35		this school might of sented it
36	Teacher	oh because of course Laura's work (.) work of the week was on the
37		board wasn't it and it had (.) all about Autumn
38	Aisha	maybe they wanna steal
39	Teacher	somehow I think someone's trying to play a trick on us
40	Andrea	it was (.) maybe it's Laura's work
41	Teacher	() over all your faces and I'm going to see if I can see any guilty faces
42		around here ((pupils laugh)) was it Mr Holmes do we think?
43		((pupils shout "yeah")) he doesn't look guilty enough I don't think it's
44		him
45	Mr Holmes	it's not my handwriting
46	Teacher	you have much neater handwriting
47	Mr Holmes	I have much messier handwriting (.) look ((shows notebook))
48	Teacher	this is definitely not your handwriting Mr Holmes (.) oh Raphael you're
49		looking a little ((pupils laugh))
50	Pupil	it says urgent (.) why don't you read it
51	Teacher	oh (.) it does say urgent (.) we need to read it (.) of course (.) I've been
52		taking my time ()
53	Pupil	what does it say?

This extract starts with the teacher asking "did one of you leave a package outside for the class this morning?" (line 1), then adding "was it you Lucy?" (line 2). Her initial stance is one of apparent scepticism and suspicion, thus placing herself on a level with the pupils as another uninformed recipient. As the package is stamped and addressed the teacher could have taken this as a starting point and encouraged the children to think about who beyond the school could have sent it, but instead her deliberate ignorance reduces her own role in unravelling the mystery. The effect of this is seen immediately as Lucy claims she saw "someone in Year R" with the package that morning (lines 5-6). This is highly unlikely as the package arrived in the post and was delivered to the classroom via the school reception. However, Lucy's claim reveals that she is buying into the idea of a mystery and also how quickly she will bring to bear an element of make-believe in her efforts to "solve" it.

After Lucy's suggestion the teacher seeks evidence to support or challenge this idea. Dan offers "it's not very like a letter it's kind of messed up" (line 15) while Leo notes that "reception children can't tie knots" (line 23). Lucy's initial inventive reasoning is now being tested with a more conventional problem-solving approach. Rather than definitively accepting or rejecting any of these accounts, the teacher repeats "now I still think it's one of you" (line 25) leaving it open to the pupils to move the discussion forward. When prompted Aisha comes back to the Reception child idea (lines 32-5) citing the messy handwriting and adding "because we're learning about Autumn" in reference to the leaf. Aisha builds on both Lucy's initial suggestion and the conventional problem-solving of Dan and Leo but grounds her hypothesis very much in the world of the school and its curriculum. This reveals something about how large the world of the school looms, especially for primary age children. Rather than suggest the leaf may be there because it is Autumn, Aisha reasons that it is because they are learning about Autumn.

After this, the teacher again refocuses on her own scepticism and suspicion saying "I'm going to see if I can see any guilty faces" (line 41), even suggesting it may have been another adult "was it Mr Holmes do we think?" (line 42). The effect of this is to sidestep any suspicion of herself. Rather than arguing for the authenticity of the parcel she does not just join the ranks of the doubters but leads them. This confers a sense of legitimate ignorance to her which acts as a stimulus to the pupils' own reasoning processes. Instead of posing questions to which she clearly knows the answers, the

teacher raises a mystery. The potential for valid responses is therefore much higher as the teacher is not the final arbiter of truth and pupils themselves have a role in evaluating contributions. This links back to the definition of creativity outlined in section 4 where *purpose* is highlighted as an essential feature. In extract I there is a heightened sense of purpose due to the genuine nature of the mystery. This is emphasised in line 50 when it is a pupil who points out "it says urgent (.) why don't you read it". The teacher's "genuine" ignorance places her on a level with the pupils, prompting them to take a more active role in leading the resolution of the mystery. This *plausible pedagogic ignorance*, the believable stance of ignorance for pedagogic purposes, emerges as a key process within the *A Cat Escapes* experience.

Extract II

This next extract adds further weight to the points above by demonstrating what pupil/teacher interaction can look like in the absence of *plausible pedagogic ignorance*. On the day this extract was recorded the class teacher was absent so the teaching assistant (TA) is leading the session. Just before this extract starts the TA reads out part of an email from Jasmine which describes a mysterious black cat shape following her. Several students shout out "it's her shadow" while the TA is reading.

1	TA	so Abdi share with the rest of the class who you think this mys <u>ter</u> ious black
2		cat might be
3	Abdi	it's her shadow
4	TA	you think it might be her shadow
5	Emma	yeah!
6	TA	'cause it's always there but when she tries to go and catch it (1) she can't
7		((general noises of agreement from pupils))
8	Abdi	it's 'cause she's (.) she's (.) her shadow moves but she (.) she's the person
9	TA	exactly (.) the shadow moves where she moves doesn't it?
10		((pupils talking))
11	TA	but maybe we'll have to (3.5) ((waiting for quiet)) but maybe we'll have to
12		ask her a few more questions about it (1) um (.) when can't you see your
13		shadow?
14	Emma	um ((several pupils talking)) in the dark (.) when (.) when it's in morn
15		um when it's time
16	TA	when it's at night so maybe we can ask Jasmine if this mysterious cat
17		disappears at night and if it does (.) we could maybe be quite sure then
18	Pupil	the sun shines over your face (.) so (.) the sun isn't at the back

In line 1 the TA adds emphasis to the word "mysterious" in order to stress the unexplained and unusual nature of the phenomenon being discussed, apparently imitating the approach of *plausible pedagogic ignorance* displayed previously by the class teacher. However, after Abdi suggests the shape is a shadow the TA goes onto supply the reasoning for this herself "cause it's always there but when she tries to go and catch it ... she can't" (line 6). Abdi then tries to engage in some reasoning himself with "it's 'cause she's (.) she's (.) her shadow moves but she (.) she's the person" (line 8) which the TA quickly glosses as "exactly (.) the shadow moves where she moves doesn't it?" (line 9). There is no plausible ignorance on the part of the TA, instead she pushes the pupils to a definite answer, often overtaking them if their reasoning process is too slow or unclear. Although she uses open language such as "might" (line 4) and "maybe" (four times across lines 11, 16 and 17) she does not invite open investigation. Unlike in the previous extract where a pupil prompted the teacher to open the parcel, here both the purpose and process of the activity are defined by the TA. In lines 11-12 she says "maybe we'll have to ask her a few more questions about it", removing the possibility of

the pupils coming up with this course of action on their own. She then directly steers the pupils towards appropriate questions asking "when can't you see your shadow?" (lines 12-13) before framing the question herself "so maybe we can ask Jasmine if this mysterious cat disappears at night" (lines 16-17). One pupil tries to supply some scientific reasoning for this "the sun shines over your face (.) so (.) the sun isn't at the back" (line 18) but the TA does not respond to this and goes back to reading out the email. The pupil therefore has no opportunity to develop and articulate this reasoning. In this extract then there is a distinct lack of *plausible pedagogic ignorance* on the part of the TA and this goes hand in hand with a much more passive role for the pupils.

Extract III

This extract comes from the final session of the project when the class receives a postcard a few days after the Carters' visit to the school. Like in extract I, the teacher poses the mystery of who this could be from. The pupils' responses reveal both a developed ability to synthesise fantastical and technical reasoning and a high level of "buy-in" with the project as a whole.

Teacher	right news (.) Miss Oak we were both shocked this morning to find this in the post ((holds up postcard)) (3) who d'you think that might be from to start off with ((pupils discussing it)) and you have to give me a reason for it you can't just say I think it was that person (.) mmm Maya?
Maya	is it from um Henrietta um (1) and Mr Carter? because last time they left and um we might learn that we might've done something to make them stay here and they might be onto us about Jasmine
Teacher	ahhhh so maybe they're writing to us to tell us something (.) I quite like that idea actually (.) the Carters (.) very good thinking (.) uh Aisha?
Aisha	I think it's um Jasmine because she must of escaped and she must of um taken it um from like a shop that sells like postcards? and she might have found a pen on the floor and () that she has escaped from the house where Howard Carter lives
Teacher	OK so it might be Jasmine letting us know that she's now free (.) um Lucy?
Lucy	it could be Varjak Paw because Varjak said that he'd be there between um between ten and (.) six and seven pm and I remember [on
Teacher	[be where(.) where?
Lucy	I remem um I remember on the way to the British Museum I saw a (.) the exact same postcard lying around on the floor with a pen with a pen next to it and Varjak might have seen it and wrote on it thank you for helping a (.) helping me and my sister (.) helping my sister Jasmine escape
Teacher	((whispers)) cousin
Lucy	cousin
Teacher	OK so you saw this exact postcard lying on the floor with a pen next to it so Jasmine could use that (.) OK (.) um Dan who do you think it's from?
Dan	I think it's from the Carters because um maybe they're writing and wanting to tell us that their cat has escaped and maybe in the letter they're a bit suspicious about us that we were
Teacher	you don't think we tricked them? (1) I thought we did a pretty good job actually (.) but I see what you're saying that maybe they're like maybe you have taken Jasmine (.) uh Mehdi?
Mehdi	I think it's the Carters because only like Jasmine can Jasmine can man the computer but I don't think she can write with a pen and um () so I think it's the Carters (.) um Henrietta and Howard Carter
	Maya Teacher Aisha Teacher Lucy Teacher Lucy Teacher Lucy Teacher Dan Teacher

In line 1 the teacher shows the postcard and announces "we were both shocked this morning to find this", hinting at a similar stance of *plausible pedagogic ignorance* to that displayed in extra I. However, the fact that the mystery centres on a postcard and not a parcel marks a crucial difference between these two extracts. While the parcel concealed its contents, the postcard can be read immediately so there is no real suggestion at this stage that the teacher does not know who it is from. Despite this the pupils engage in an extended round of conjecture and reasoning about who the sender might be. Unlike in extract I, this discussion does not include any suggestion that the postcard could be some form of hoax sent by anyone within the school, implying that the pupils have largely bought into the premise of the project as a whole. This fits with feedback given later by the teacher who described the students as "going along with it for fun", despite not fully believing deep down that it was all real. This kind of reasoning activity has become a recognised genre of its own over the course of the project and this extract shows pupils fluently interacting in a space which spans fact and fiction, moving seamlessly between technical and fantastical reasoning.

The first idea comes from Maya who suggests that the postcard is from the Carters because "they might be onto us about Jasmine" (lines 5-7). On one level this is grounded in fairly conventional logic, but it also rests on the idea that the class' contact with Jasmine was all genuine and that she really escaped. Aisha then suggests that the postcard is from Jasmine (lines 10-13). While the notion of a cat writing a postcard is more overtly fantastical, Aisha also grounds this with more mundane technical details such as that Jasmine might have "taken it um from like a shop that sells like postcards" (line 11) and "found a pen on the floor" (line 12). Lucy adopts a similar approach suggesting Varjak as the author and supporting this with the fact that "he'd be there between um between ten and (.) six and seven pm" (lines 16-17). She then goes even further claiming to have seen "the exact same postcard lying around on the floor with a pen with a pen next to it" (lines 19-21) when they visited the British Museum. This convenient memory is reminiscent of the Year R pupil she saw with the parcel in extract I highlighting how individual pupils can bring particular predispositions to imaginative fiction to projects like this. Mehdi takes a slightly different approach in this respect. While Lucy appears to want to make anything possible to support the story (and her role in it as a key witness), Mehdi is more wedded to a certain level of plausibility. He states "Jasmine can man the computer but I don't think she can write with a pen" (lines 33-34) leading him to suspect the Carters of writing the postcard. He still buys into the story as a whole and the idea of a typing cat, but a cat holding a pen is a bridge too far. These slightly contrasting examples highlight the existence of a common space in which fact and fiction are hybridised, but also the variation in how individual pupils respond to this.

Extract IV

This final extract comes midway through the project and provides an insight into interactions away from teacher-led whole class discussions. It involves three pupils (Lucy, Hamed and Andrea) who are working as a group to design and construct a platform out of newspaper, straws and sellotape. While the previous extracts have exposed the impact of teacher stance on creative processes, this extract hints at the extent to which creativity is mediated by peer relationships and interactions.

1	Andrea	Hamed so what shall we think of?
2	Hamed	I don't know
3	Lucy	can you give me an () can you hold these?
4	Andrea	come on Hamed we need to work as a team (1) so think of your own ideas (.)
5		let's shout them out (1) so I think we should do what Aisha did
6	Lucy	I've got a really good idea what we can do (1) here's my base (2) here's the
7		base

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8
     Andrea
                    so where's the scissors? shall we
9
     Teacher
                    ((to class)) Jaydn and Lucy's group (.) number two (.) if I've got a tip for
10
                    you guys it would be to think what you're going to do first (.) agree it
11
                    before you even start touching anything
12
     Lucy
                    OK I know what we should do
13
     Andrea
                    oh there's pictures of bridges
14
                    I've got an idea (.) I've got an idea though (.) it's really good (.) it's a good
     Lucy
15
16
     Andrea
                    OK (.) we can do that
17
                    yeah but can I finish speaking first?
     Lucy
18
     Andrea
19
                    so (.) um (.) we could use the base maybe (.) so (.) um another piece of
     Lucy
20
                    newspaper on top like this
21
     Hamed
                    basically a big goal
22
     Lucy
                    and (.) um (.) and then [(.) and then
23
     Andrea
                                             [veah
24
                    you cut off this bendy bit (.) cut cut cut (.) put five like this (.) sellotage that
     Lucy
25
                    round so it won't like fall down (.) and then we get the rest (.) we get the
26
                    rest of this and put it on top so it's like a trampoline and we put little exes
27
28
                    mmm nah (.) ((to Hamed)) did you vote for that?
     Andrea
29
     Hamed
30
     Andrea
                    put your hands up if you want to do this? (.) nope (.) put your hands up if
31
                    you want to do Lucy's idea
32
     Hamed
                    I don't know I don't [( )
                                          [Hamed didn't even hear (.) so Hamed basically
33
     Lucy
34
     Hamed
                    I can make my own one
                    there's two there's two ((looking at pictures))
35
     Andrea
36
     Hamed
                    oh yeah we should do this one
37
     Andrea
                    we [should do this
38
                       [what one?
     Lucy
39
     Hamed
                    that's sick
40
     Lucy
                    what one?
41
     Andrea
                    it's so sick
42
     Lucy
                    what one? show me
43
     Hamed
                    ((imitating Lucy)) show me
44
     Andrea
                    can we do [this one?
45
                               [what one?
     Lucy
46
     Andrea
                    can we do this one?
47
     Lucy
                    wait can I see the (.) uh (.) one you called it sick?
48
     Hamed
                    that is it the third one
49
     Andrea
                    huh?
50
                    that one?
     Lucv
                    there's another one
51
     Andrea
52
     Lucy
                    what [one
53
     Hamed
                          [arch bridges
54
     Lucy
                    oh I've got an idea (.) guys will you listen?
55
     Andrea
                    can we do this?
56
     Hamed
                    we need
57
     Lucy
                    come on
58
     Andrea
                    OK who wants to this?
```

59	Hamed	um we need to have [()
60	Lucy	[it won't really work
61	Andrea	she can't stand on it isn't it?
62	Lucy	I have one where she can jump (.) so (.) it's a bit
63	Hamed	you need all those straws to make one big (.) um (.) [part
64	Lucy	[<u>no</u> (.) we need to use
65	Hamed	cut cut chop chop chop
66	Lucy	I know this is hard but I've got
67	Andrea	we didn't even start (.) we need to hurry hurry
68	Lucy	<u>I know</u> (.) I know what we should <u>do</u>
69	Andrea	what?
70	Lucy	will you just listen
71	Hamed	just use a straw
72	Lucy	no no no
73	Andrea	we can't just put (.) that
74	Lucy	no it's not (.) we're going to [(.) what's it called?
75	Andrea	[mmm
76	Lucy	we're going to make a base out of newspaper (.) a few of them (.)
77		um put [a few straws (.) put a few straws (.) cut off this bit
78	Hamed	[yeah
79	Lucy	make an ex inside out of one and maybe put the rest of it on top so she can land
80		on it and bounce
81	Andrea	yeah but yeah but where all the other (.) that would (.) yeah
82	Lucy	put your hands up if you want my idea?
83	Andrea	yeah but that would just waste all the straws (.) that would just waste all the
84		straws because
85	Hamed	when you got one straw (.) bounce (.) then bounce innit?
86	Lucy	<u>yeah</u>
87	Andrea	we're gonna use one straw and we going (.) we put another layer another straw
88		another layer what about that?
89	Hamed	let's [do it
90	Lucy	[alright Hamed you're in charge of the straws (.) Abi you're in charge of the
91		cutting and this (.) you've got two jobs (.) how's that?
92	Andrea	good (.) but can I have one (.) cause I need to cut (.) so shall I cut?
93	Lucy	yeah start cutting it start cutting but just up to there (.) Hamed once she's done
94		once she's done pass it back to Hamed while I make the base
95	Andrea	here you go
96	Lucy	I've got the hard bit

The platform this group produced represented a uniquely creative interpretation of the original brief. While the goal was to build a platform of specific dimensions in order to enable Jasmine to reach the window, this group opted to construct a mini-trampoline. The key components were "springs" created by cutting out the bendy section of some plastic straws. While these did not in fact function effectively as springs, the endeavour can be seen as highly creative in terms of how the vision behind it reworked the original parameters of the task. What emerges from this extract is the extent to which the creation of this final product depended just as much on interpersonal skills as the imagination necessary for the initial idea.

The first few lines of this extract set the tone for interaction in this group. Andrea asks "Hamed so what shall we think of?" (line 1) sidelining Lucy by leaving her out of this question. Hamed replies "I don't know" (line 2), a foretaste the lack of momentum he gives to group discussion, prompting

Andrea's attempt to motivate him with "come on Hamed we need to work as a team". In tension with this, from an early stage Lucy has a strong sense of what she thinks they should do as her first major contribution in line 7 shows "I've got a really good idea what we can do". In lines 10-12 the teacher emphasises the need for agreement "before you even start touching anything" (line 12), prompting the negotiation between the three pupils which follows. Although Lucy's idea is eventually selected, it is as much on the strength and tenacity of her negotiating skills as on the merits of the design she proposes.

Lucy first makes herself heard through sheer insistence: "I've got an idea (.) I've got an idea though (.) it's really good (.) it's a good idea" (lines 15-16) and "yeah but can I finish speaking first?" (line 18). She gains the floor and delivers an explanation (lines 25-28) which Andrea quickly dismisses with "mmm nah" (line 29). Andrea attempts to cement this dismissal by forcing a quick vote (lines 31-32) but Hamed's noncommittal "I don't know" (line 33) gives Lucy some room for manoeuvre. She complains "Hamed didn't even hear" (line 34) and starts explain to him again. Hamed then says "I can make my own one" (line 35) and he and Andrea begin looking at pictures of structures which they have been given to help with the task. The two begin discussing these, agreeing that one of them is "sick" (lines 40 and 42), a slang term for "really good". Lucy is excluded from this exchange and asks seven times which image they are talking about, during which Hamed mockingly imitates her plea "show me" (line 44). She resorts again to forceful insistence saying "guys will you <u>listen?"</u> (line 55) and counters the proposal which Andrea puts forward saying "it won't really work" (line 61). She tries again to advertise her own idea saying "I have one where she can jump" (line 63) but Hamed is unconvinced replying "you need all those straws to make one big (.) um (.) [part" (line 63). It is only after Andrea states "we didn't even start (.) we need to hurry hurry hurry" (line 67) and Lucy seizes upon this with "I know (.) I know what we should do" (line 68) that she begins to turn the others back onto her idea. She demonstrates her plan again then employs Andrea's earlier tactic saying "put your hands up if you want my idea?" (line 82). After some more reservations from Andrea, eventually the other two are convinced and Lucy immediately takes it upon herself to allocate roles: "alright Hamed you're in charge of the straws (.) Andrea you're in charge of the cutting and this (.) you've got two jobs (.) how's that?" (lines 90-91). Lucy's choice of the phrasing "you're in charge of..." suggests she knows how to win over her peers. This is reinforced when she points out to Andrea "you've got two jobs (.) how's that?".

Looking in detail at the interactions which led up to the production of the trampoline, it is clear that Lucy's negotiating skills were as important as the idea itself. She uses a range of tactics from insistence and pleading to debating and flattery to get her idea taken up. However, this does not imply that the creative input came solely from Lucy and the other two simply helped with the physical construction. The negotiations were an integral part of the creative process where Hamed and Andrea's initial resistance fed into articulating and demonstrating the value of the trampoline idea.

7 Conclusions

The high quality work produced by pupils in the study group during the final assessment point to significant benefits gained from *A Cat Escapes*. It should also be noted thought that the small sample size and lack of direct equivalence between the study and comparison group preclude completely definitive conclusions from the statistical data. The assessment data contained strong evidence of a boost in both "fantastical problem-solving" and the ability to make "cross-curricular" links associated with the *A Cat Escapes* experience. Analysis of written answers revealed that pupils from the study group synthesised skills in reasoning and expression associated with different genres within their work. This was supported by the audio data which showed pupils engaging in class discussions which spanned fiction and non-fiction genres simultaneously, a pattern that became more embedded as the project continued.

Evidence in the data suggests that the flexible and creative thinking described above can be linked in part to a certain style of interaction promoted by *A Cat Escapes*. The use of convincing communication channels with characters beyond the school (parcels/postcards/emails/chat rooms) enabled the teacher to distance herself and maintain a stance of "plausible pedagogic ignorance". This stimulated more open and engaged questioning and reasoning on the part of pupils. The apparent plausibility of the unfolding story also contributed to an ambiance of possibility created by serious engagement with the fantastic, thereby stimulating and legitimising cross-genre reasoning.

While the role of the teacher was key in facilitating the processes outlined above, much of the project activity was undertaken within a context of group work, making peer-to-peer interaction a defining feature of *A Cat Escapes*. Analysis of pupil interaction revealed an environment where creativity was fostered in a different way. While class discussions were characterised by openness to a proliferation of ideas, peer discussions involved a greater emphasis on justification and negotiation. However, instead of seeing this as a brake on creativity, it can be viewed as an integral part of a wider creative process where the value of ideas in relation to a specific purpose are hammered out.

8 Recommendations

- A Cat Escapes is a highly successful project in part as it makes such effective use of the
 awareness and skills of the classroom teacher. The problems shown in section 6, extract II, when
 the TA was leading the class highlight the potential for the project to be weakened through
 delivery by a less experienced staff member. In light of this, it may be useful to draw up some
 guidelines for teachers to alert them to features such as plausible pedagogic ignorance so as to
 avoid these being undermined.
- The activities within A Cat Escapes provide an excellent opportunity for pupils to revisit topics they have already covered and think about and apply their knowledge in new, cross-curricular ways. However, as the structuring of the curriculum varies from school to school, it is difficult to predict exactly which topics any particular class is likely to have studied. If classes end up being faced with an activity on a topic they have not yet covered, this can be difficult for the teacher to facilitate. One way to reduce this risk could be to provide the class teacher with a greater range of activities from which they can select the most appropriate ones. This is best facilitated via early contact with the specific classroom teacher, as opposed to a Deputy Head who might be in charge of liaising about the project.
- The principle of unpredictable communication, and the activities this leads to, makes the project exciting for pupils and lends it a sense of authentic purpose. A difficulty this raises is how to differentiate for pupils with SEN or EAL who may have difficulty accessing some of the written tasks. Having pre-prepared aids such as sentences starters and writing frames would undermine the apparently spontaneous nature of the activities. The teacher in this study made excellent use of peer support and differentiated roles within group tasks. For teachers with less experience it may be useful to provide a bank of suggestions about how pupils with SEN and those with EAL can be helped to access the individual activities.

9 References

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10 Transcription conventions

(.) pause of less than a second
(1.5) approximate length of pause in seconds
[overlapping turns
[() speech inaudible
((text)) "stage directions"
text emphasised syllable