MOUNTAINS, SHIPS, AND TIME-MACHINES: MAKING SPACE FOR CREATIVITY AND LEARNING WITH DRAMATIC INQUIRY IN A PRIMARY SCHOOL

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INTRODUCTION

Wearhead Primary School is perched on a hill looking down over the mountainside where the Wear begins its 50 mile journey from the top of the Pennines through Bishop Auckland and Sunderland to the Co. Durham coast. As I drive up on a crisp November afternoon, I can see that the granite school building has been renovated and extended in the century since it first opened. New windows let in the late autumn sunlight but keep out the rain that has just passed and the brisk wind that can blow year round. A top the entrance hangs the old school bell that has just been rung to bring the pupils in from playtime.

As the children scamper out of sight to the rear door of the school, I notice something unexpected. A quirky, colourful, signpost to the imagination of children stands in the playground. Though I've seen other similar late Victorian school buildings I've never felt the beady eye of what looks like a crocodile follow me as I pass through the gate in the stone wall. I look more closely at the many moulded and painted shapes of creatures. I notice a pair of wings and the beak of what could be an eagle or perhaps a griffon.

I later discover that this is a birdhouse. Three years previously this totem of creativity had been designed and painted by all 22 Junior children in the school under the guidance of London architect Angus Morrogh-Ryan. Its construction paralleled the creation of innovative designs for functional bird boxes. I'm not surprised to discover later that Angus won an award recognizing 'excellence in creativity globally' for a set of bird boxes installed in the city of Durham that had been inspired by the children's designs. The children who had delighted in having their designs shared with the world outside their dale now travel to the secondary schools in one of the nearby towns. It's their siblings and friends from this tight rural community who have been skipping or playing football or chase on the blacktop.

I've come to meet and be interviewed by the children and teachers in connection with a Creative Partnerships funded project. Like the 29 children, the teachers in the Infant and Junior classrooms, the teaching head, as well as the part-time staff and assistants all live locally. Though I now live in the United States I am in the area to present at a conference in Newcastle upon Tyne. As I enter the building it feels entirely appropriate that I might have an opportunity to return to the Northeast of England for several visits to this school. Just over 20 years previously, after half-a-dozen years as an English and Drama secondary teacher, my life had been transformed when I had attended a year-long drama-as-

education course with the legendary Dorothy Heathcote at the University of Newcastle. Without that masters degree I would never have gained a doctorate, taught as a primary teacher, been employed as an associate professor at Ohio State University specializing in teaching and learning with drama, or been one of three potential researchers invited to visit the school.

I know that the school has a long successful history of Creative Partnership funded projects with visiting artists. Liz Gill, who teaches the twenty 7-11 year old children, has spearheaded the project that has drawn me to the school. Liz and Karen Evans (the head teacher who also teaches maths and singing) welcome me with a cup of tea in the cozy staff room. They tell me that Carey Turnbull, who has major responsibility for teaching the nine children in the Infants room (including the two children in Reception) is not in today. She comes three days a week part-time and I'll be able to meet her co-teacher, Margaret.

Liz introduces me in a few minutes to a group of four Junior-aged children who are to take me on a tour of the school. It's only ten steps to Liz's classroom past the adult toilet. The walls of her classroom and of the school are covered with skillful children's artwork made using materials from her impressive art supply cupboard. The two girls and two boys are eager to show me paintings of ships and monarchs and a map all related to the defeat of the Spanish Armada that they had recently studied. They like it when I pretend to be on one of the sinking ships and one of the boys almost responds when I feign a cry for help. The children in the classrooms are all reading. Some glance up as we move past. The Juniors have been sitting quietly at green tables with their own books while the Infant children are gathered together on the carpeted floor listening to a story being read. The Infants room feels more spacious than the Juniors. The ceiling has not been lowered there and there is a French door leading to a play area with colourful plastic big trucks awaiting their young drivers. At the other end of the classroom from the children is a sink with paints and brushes clearly in the middle of being used and many other materials readily available. We return to the hallway, pass the children's toilets, and go outside. The children are unsure whether or not to go on to the grass since it has been off-limits to children during playtime due to the recent rain. From a distance they show me the wooden climbing frame they like to clamber on and the wooden seats laid in a circle for telling stories. Inside again, after we see the lunchroom where they have daily assembly, weekly gym and singing, and occasional visiting and school performances using a small portable raised stage, the children return me to the tiny staff room for a second cup of tea.

When I talk with Liz and Karen I find out more about this latest CP project that is to focus on 'space'. The teachers say that they feel cramped. Sitting in the tiny staffroom where I could touch both walls if I stretched my arms, I do feel somewhat restricted. I also wonder if anyone who lives at the top of a mountain range anticipating the coming dark days of winter would feel a need for more physical space. Then I discover how their feelings of being hemmed in have

intensified. A bureaucrat, visiting from County Hall and armed with a tape measure and inverted logic, had pronounced that they had too much instructional space. His solution? Stop children from using the modest library that had occupied the small room between the two classrooms! Now I understand what the children had meant when passing a storeroom they had said that they used to be able to go there alone to read.

The teachers want to think through how they might create more space. The story circle and climbing frame along with the blacktop area outside the Infants room where the children have a sand pit and can ride plastic trucks, are the beginnings of what they call their 'outdoor classroom'. The teachers are now interested in how the children's uses of the outdoor play space might be transferred into the classroom. Angus Morrogh-Ryan has agreed to return to the school to advise and build some structures. And I've been invited in to see if I might join the project as a researcher to document what happens. The teachers are intrigued when I talk about my expertise in using classroom drama and offer to lead teaching sessions with Tim Taylor, my AST friend and colleague from Norwich. Knowing that the school is also involved in promoting creativity I suggest that we consider how using what I call dramatic inquiry might create space for creativity and learning. When I learn later that Tim and I have been chosen to join the project we arrange to meet Angus at the school in January.

DRAMATIC INQUIRY

When I told the teachers that Tim and I would be using drama with the children, they had a partial understanding of what I meant. Dramatic performances were a regular part of life at Wearhead School. The school had had several visiting performers and Liz regularly produced a Christmas play. And in the Infants room, pretend play (or dramatic play) was encouraged as a choice during 'Golden Time' at the end of the day in the play corner where there were dress-up clothes. The teachers didn't expect that by the end of our first two-day visit to the school we would have enacted a pirate attack on a merchant ship with the Infants and built a space-ship with the Juniors.

Carey had told us via email that the Infants had been studying pirates. They had focused on the stereotypical Treasure Island images of pirates via some informational books and stories. They had also pretended to be pirates on the playground and had begun to make up their own story about buried treasure. On our first day at Wearhead School we used dramatic inquiry with the younger children to investigate the question, 'What was it like when pirates were alive?' We created a narrative with the children about how an early 19th century merchant ship loaded with silver from the lead mines in the dales nearby was attacked off the Durham coast and nearly sunk by marauding pirates who struck the sails and hull with cannon-fire, boarded the ship, and made off with the treasure.

Dramatic inquiry is my term for using the process of dramatizing for curricular learning through inquiry. Dramatic inquiry lies on a continuum between dramatic play and dramatic performance. It is different from most classroom uses of drama because adults participate alongside children as if they too are people in an imagined world.

Like dramatic play, dramatic inquiry is rooted in children's love of narrative as well as their desire and ability to imagine they are other people who live elsewhere. The infant children relished pirate tales and loved to imagine the storming of a ship. They were delighted at the prospect of bringing their playground play into the classroom. Like all play, dramatic inquiry is always voluntary. Children choose to play along and adults must also choose to participate. Tim and I had to be ready to imagine for short periods of time that we too were pirates or one of the crew of the merchant ship that was attacked. Whereas play can be repetitive, escapist, and formless, adults shape children's experiences in dramatic inquiry by participating as well as facilitating the work. By joining in as a narrator I could structure the order of events and by imagining I was a pirate I could negotiate with the other pirates the best way to achieve our objective of capturing the treasure.

Like dramatic performance children and adults may enact narratives to show each other events that are only imagined. However, sharing in dramatic inquiry is never for an audience outside the room. The boys who imagined they were the pirates happily showed their peers how they forced open the captain's cabin. They did this in order to share an event they had imagined but not for applause.

Like both play and performance, dramatic inquiry is not just talking about the people and situations in the imagined worlds we discover in stories but rather in imagined spaces children and adults enact imagined events in dramatic action. We shifted the tables and chairs and used pieces of material to evoke parts of a ship: the hold, the captain's cabin, and a rowing boat. Then some of the children hid as others continued to move around. Additionally, like readers of their own collaborative writing, in dramatic inquiry adults seek with children to understand the meaning of the imagined events in enacted narratives. We stopped the children on occasions to share and interpret what they had enacted, for example, to wonder how the crew escaped death and why the pirates used violence.

INSERT PHOTOGRAPH 1
Imagining a pirate attack.
INSERT PHOTOGRAPH 2
Imagining defending the captain's cabin.

Dramatic inquiry is also curricular inquiry. An inquiry-based approach to learning science and mathematics is widely valued and practiced. Inquiry may focus on investigations like how and why boats float (and sink) when made out of clay or paper. Though we didn't suggest it, the work we did that day could have led to

such investigations by the infants. Through inquiry, children can discover and create understanding of physical properties like weight, numerical relationships like addition, or complex phenomena like floatation. At the same time children can use and acquire literacy skills like how to record experimental results as well as factual information, for example, about boats that have sunk.

Using inquiry to structure the social, historical, and cultural dimensions of curriculum learning is less well known. Inquiry questions can focus children on working to understand aspects of how people have lived, or live, in different communities including those of 19th century Durham fishing villages or those on board a merchant or pirate ship.

Dramatic inquiry, like all inquiry, is grounded in children's curiosity about life and is structured round inquiry questions. Learning occurs as the children, with adult assistance, grapple with those questions. Dramatic inquiry is always related to whatever fictional scenario is being created so that the inquiry is always contextualized in human events beyond the classroom. Whereas classroom tasks may, to children, feel disconnected from the world outside the school, in dramatic inquiry there is always a reason for exploration and investigation that is felt by the children as connected with the lives of other people via an engaging and evolving narrative. Further, unlike other classroom-based inquiry approaches, in dramatic inquiry children collaboratively live out their questions in imagined spaces as if they are the people involved in or concerned with whatever topic is under investigation. Now children experience inquiry, not only as a relatively emotionally detached researcher of ideas, but also as a group of thinking-feeling active participant-observers making meaning about pressing human concerns.

INSERT PHOTOGRAPH 3
Brian's drawing of the pirate attack on the merchant ship.
INSERT PHOTOGRAPH 4
Tim asks, 'What was it like when pirates were alive?'
INSERT PHOTOGRAPH 5
Attacking pirates.
INSERT PHOTOGRAPH 6
Wondering what to do.
INSERT PHOTOGRAPH 7
Hiding from the pirate attack.

And when teachers join in imagined activities and participate they can extend what children would create alone as well as focus and deepen how children reflect on imagined events to evaluate them. At first the children imagined that they were on the ship that had been attacked. Tim and I and Carey joined in as if we too were with the crew or with the pirates. Later the children imagined that they met the ship's owner, represented by Tim, who was upset that his silver had been stolen. All this was done to inquire into aspects of the question: What was

it like when pirates were alive? And in doing so, the children learned information about the period, communication skills, and understanding about why pirates attacked and how people coped with their raids.

Dramatic inquiry is like dramatic play

- children imagine they are other people living elsewhere by talking and moving as if they are those people
- adults facilitate as necessary

+ adults play along with children to extend and shape their experiences.

Dramatic inquiry is like dramatic performance

- children enact imagined events for peers (but not for external audiences)

+ adults assist children to interpret imagined events from different viewpoints.

Dramatic inquiry is like inquiry-based curricular study

- children investigate curriculum topics through collaborative exploration of questions they are curious about
- adults focus on aspects of topics that they want the children to learn about
- children connect with their lives out of school

+ children investigate by experiencing and interpreting imagined as well as actual events

+ adults focus inquiry from within imagined events.

SOCIAL SPACES

Space is not just the physical distance between objects or people. As people move and interact in physical space they produce and mould social space. Children's learning during dramatic inquiry is affected by their experiences and understanding of social interactions, just as it is at all other times in and out of school. However, dramatic inquiry opens up many more possibilities for learning when children imagine together in the social spaces of classrooms.

Children are learning in social spaces all the time, not just inside classrooms. Children learn from one another as well as from the adults in their lives. A great deal of social learning occurs when children participate in social activities as well as from what people may say to them. For example, we learn to become part of a group by joining group activities and accommodating to a group's norms. If we detach ourselves from other people, or are isolated by them, then our learning is significantly diminished. As outsiders to Wearhead, if Tim and I had only been able to observe we would not have come to know and like and learn from and alongside the people we met in the school and the village. Over the five months that spanned our three teaching visits to Wearhead we watched Tony, a Year 2 boy who arrived late in the year from outside the dale, learn to fit in. After our first visit, Carey confirmed what we had noticed: Tony was learning to participate with peers more in and around playground games than in most formal classroom

activities. And on the playground he would take more direction from children than from adults or peers in the classroom where depending on the activity (and thus the social space created) he could become resistant.

Teachers create social learning spaces through their social interactions with children. Those spaces alter when a group moves from the classroom to the playground, or to the hall, or on a field trip, not only because of a physical move or because of access to different resources, but also because of a change, often implicit, in adult expectations about how children may move and interact and thus which social activities are possible and which are not.

The playground at Wearhead was similar to primary school playgrounds the world over. All children had wide choice over what they did and with whom they spent their time. Some children ran after balls and shouted or hid from and then chased one another or tried to balance one-legged on a wooden seat while others sat to talk or moved in playing quieter games. The children played at what they were doing. They explored possibilities: new sounds and movements, different ways of skipping, and alternative ways of balancing or diving for a ball. And both children and adults shifted at will from one activity or group to another. Adults monitored to make sure that children were safe while chatting with one another or with groups of children or, like Tim and me, they might join children in a game of football.

Moving inside unavoidably changed social expectations. Children who were loud and boisterous outside needed to be more quiet and settled inside. Children who had choice over whom to work with or what to use on the playground could find themselves in predetermined groups with set tasks.

Using dramatic inquiry in the classroom changed the quality of the social space by opening up learning activities in which the children were eager to participate. In a way that was similar to physically leaving the room, we changed the social space in the classroom by going on imaginary field trips. In dramatic inquiry we created socially imagined spaces with the children. Unlike the dramatic play spaces on the playground the imagined spaces we created with the children overlapped with the social spaces of the classroom. After our January trip to meet pirates, in March we took the Infants on a mountain rescue mission, and in May we traveled back in time to encounter the dinosaurs. In each case as we incorporated imagined spaces into the classroom children had many more possibilities for how they moved, where they placed themselves relative to other children, what materials they used, with whom they worked, and how they interacted with adults. All of the imagined dimensions of the social space affected the children's potential for learning from and with one another and the adults in the room.

SHARING POWER

How people use power changes their relationships with others, the activities that are possible, and thus the quality of the social space and the learning that may occur. Adults in school have a responsibility to use their power to create social space where children can participate and interact in activities and have access to resources. Adults must control social space so that children can learn. Which is not the same as saying that adults must control children.

Dramatic inquiry requires that adults share power with children. Negotiation is key. Because dramatic inquiry is grounded in play, children must always voluntarily participate as they enact possible ways of being in the world. What if we were attacked by pirates? What if we were the attackers? And because inquiry always has a locus of exploration the children must have a shared purpose to guide them. What would we do, or not do, to stay alive and protect the treasure? Thus, the children must agree on a topic, and a focus for every activity that includes which imagined events to enact as well as which resources to use. On the day we first worked with the Infant children they used furniture, pieces of material, paper, markers, and their own bodies to manifest their collective ideas and collaboratively create a narrative.

Working with a topic that the children were already very interested in meant that Tim and I soon tapped into a deep level of commitment from every child. Such investment made all negotiations easier than if we had tried to impose a topic. We wanted to extend their stereotypical knowledge of pirates by introducing some local history and geography and some realistic content. And we were committed to both humanize pirates and to have the children think about some of the human and social consequences of pirates' violent deeds.

We focused the group by telling a story while drawing a picture of a ship being attacked by pirates. Gathering the children round Tim representing a painting of a worried captain and me with a marker drawing a cannon ball hitting a ship's sails attracted every child including those who had initially seemed disinterested and unfocused. Within minutes of expanding the tale with my drawing that depicted the details of a ship in danger of sinking, all of the children were committed to inventing what had happened in the raid. We told them that like all authors we could play with ideas and that if we could build on one another's ideas together we could make up whatever tale we wanted.

When we asked the children if in the classroom they would like to create the boat at the moment of the attack we wondered with them how they could best do that. They were eager to use the tables and chairs. Carey had never used the furniture in this way nor had she allowed dramatic play to spread from the corner but she was keen to see how the children worked together and she helped facilitate the safe physical movement of objects that were not easy for little ones to move alone. She also produced pieces of material that were soon draped over tables turned sideways or inverted. And some of the children were eager to roll up paper to represent cutlasses. Rather than us introducing ideas to the

children now we were following their lead and their suggestions. Within ten minutes all of the children, working with their friends, had created spaces on the ship that appealed them. Tony and Peter were keen to imagine they were the pirates boarding while the other children wanted to imagine they were the crew on the merchant ship.

Everyone was quiet and attentive as each person stood by the part of the ship that they had created, told what it was, and showed where the person they were imagining was when the pirate attack happened – on deck when the mast was struck and fell, in the captain's cabin, alone in the hold, in the bow where a second cannon ball struck, or in the rowing boat watching the pirates throwing grappling irons across from their smaller faster ship as they readied to board.

Dramatic inquiry requires that children agree to share power with one another and with the adults in the room. Whereas dramatic play on the playground encompasses children on their own separate adventures or beyond adult supervision being bossy or exclusive, dramatic inquiry harnesses play for collaborative curricular inquiry. To be able to learn from and with one another, children need to listen as well as talk, be still as well as move, and be quiet as well as noisy. They don't have to be receptive to others' ideas all of the time but they must learn to do this when they've agreed that it's important to share ideas. Everyone wanted to know about the parts of the ship that other groups of children had created by moving and upending tables and chairs to drape them in cloth. It required only minimal adult effort to ensure that everyone listened and that all could be heard. Everyone watched Peter and Tony grimace as they pretended to wield cutlasses and swing grappling-hooks. After others had shared where they had been during the attack, Julie, a young quiet hesitant girl who had said nothing previously, showed everyone where she had hidden to watch the pirate attack.

INSERT PHOTOGRAPH 8
Hiding in the boat.
INSERT PHOTOGRAPH 9
Listening to each other's ideas.

Sharing power with children does not mean that adults hand over power or allow children to dominate the social space. On the contrary, when necessary adults must use their authority as teachers to ensure that children create a collaborative social space. At the heart of collaboration is one person combining their ideas with others to create something together that is new. Anything can be collaboratively created. On that day we created an imagined ship, we invented events, and composed a novel story. After imagining the attack we wrote a poster from the ship's owner advertising a reward for recovering the treasure, invented what happened when the owner met the crew, and as a group standing round the grave with the mother of a dead comrade, composed an epitaph to be written on the tombstone.

Learning to share power can be challenging for adults as well as children. Teachers and other adults who have more authority than children may use their power to dominate space. Sometimes it is important to decide how space is used: who can sit where, who can talk when, who can move and when. However, we cannot dictate how children will create and experience social space. And if we want children to engage in dramatic inquiry then we must use their energy and ideas to negotiate and create with them. Some children expect to use their power to dominate space and relationships assuming that they can exclude or include others from their space. But if we want children to learn how to cooperate then we must use our power to create collaborative conditions where children can learn from us and from each other about the value of building on one another's ideas.

CREATIVE SPACES

Spaces are creative when they promote creativity. When Ken Robinson described creativity in the *All Our Futures: Creativity, Culture & Education* report to the Secretary of State for Education & Employment (Robinson, 1998) he put what he called 'applied imagination' at its centre, defining creativity as 'imaginative activity fashioned so as to produce outcomes that are both original and of value' (29).

Robinson stresses that there are two complementary modes of creativity: the generative mode and the critically evaluative mode. In the generative mode people expand the possibilities of a situation, to look and experience from new perspectives. When the children designing the birdhouses sketched, talked, and consulted resources in books and on line, they created countless possible ideas that might be workable for different birds. Similarly, the infant children who imagined the pirate attack generated many possibilities for what might have happened that day: who died and was injured, what was stolen and saved, and what happened to the ship as it took on water.

Robinson described the imaginative activity of creativity as a form of 'mental play – serious play directed towards some creative purpose. It is a mode of thought which is essentially generative: in which we attempt to expand the possibilities of a given situation; to look at it afresh or from a new perspective, envisaging alternatives to the routine or expected in any given task' (29). Children's dramatic play is generative imaginative thought-in-action. Though some dramatic play can be very repetitive it can also create the unexpected. Exploring responses to pirate attacks was certainly not a routine matter on top of the Pennines. As children move, talk, and imagine they are other people they take up fresh perspectives to view life in ways that are new for them. Sometimes it can be difficult to see productive creativity in children's play especially when it is highly energetic or involves movement or noise. Dramatic inquiry, however, is always purposeful. Though enjoyable for the participants it is the sort of applied play or 'serious play directed towards some creative purpose' that Robinson

describes as central to a creative drive. The purpose is provided by inquiry questions and by the agreed upon focus for each activity. And the purpose provides the criteria for evaluating whatever ideas are generated both in terms of selecting and refining imagined events and their interpretation.

In the critical evaluative mode people contemplate and use critical thinking to make judgments about the value of an outcome that has been generated. The evaluation of an outcome is not restricted to a completed work like a birdhouse or a pirate tale but is rather part of the ongoing process of creation. The children who made the birdhouses would have evaluated their work continually as they moved toward the goal of completing their project. Some ideas were discarded, others were adapted, and some were amplified. But all ideas were evaluated relative to the purpose of designing homes for birds. The designs for the boxes that ended up in the city of Durham had to be evaluated on pragmatic grounds whereas the birdhouse that ended up in the school playground could be evaluated mostly using only aesthetic criteria like shape, line, colour, pattern, and overall form.

As the infant children enacted events in their invented day in the life of a ship that was attacked by pirates Tim and I shifted back and forth between generating ideas and evaluating them. In doing so we created both a narrative and interpretations of the narrative events.

Dramatic inquiry revolves around a shared narrative. Like dramatic play, elements of narratives can evolve in process. And as in curricular inquiry elements of narratives can be given by teachers or by stories in order to focus inquiry. We initially briefly drew on prior narrative ideas by looking at illustrations from books and by asking the children what they knew about pirates and ships. We then narrated and illustrated an event that we created for them -- a pirate attack on a merchant ship. In response, rather than just talk about their narrative ideas the children were eager to enact them.

Initially, narrative ideas were generated in discussion and then through dramatic action as the children collaboratively enacted what they wanted to happen during the attack. Some narrative ideas have to be agreed upon by everyone for example the fact that the ship was attacked and damaged, but not sunk. Though individual children will invent their own nuances everyone has to agree on core events: a ship is either attacked or it isn't, it either sinks or it doesn't. Adults can make suggestions, give their ideas, and generally assist or press children to reach agreement on events. Some children initially wanted the ship to sink in the attack but after a brief discussion all readily agreed that it would make a better story if the crew thought that the ship would sink but that it would be able to limp into port in a storm. Children let go of or modified their initial ideas by evaluating the outcome in terms of what would make the 'best' story. Other ideas, like the name of the ship, remained undecided. There was no agreement and no value system that children cared to use.

Though ideas in dramatic inquiry are often cooperatively generated this does not mean that one person can impose their inventions or interpretations on another. In particular, individuals must have control to invent what happens to the people that they individually imagine subject to any agreed-upon narrative events. Highly inventive children, like Peter, will readily develop their own narratives that extend beyond the moments they are enacting. Peter had ideas about what happened to every member of the ship's crew. He thought that the pirates killed everyone. Though we allowed him to offer his ideas, and to note that some agreed with him, we insisted that each individual child should invent what happened to him or her. In deciding what happened to the people they had invented, each of the children could evaluate and use an idea offered by any other. Each placed themselves on the ship and declared whether they had died, been injured, or escaped. Similarly, children's interpretation of events cannot be imposed on others but need to be evaluated. What should happen to the crew when they encountered the angry owner was a decision that could not only be made by the two boys who wanted them dismissed for allowing the silver to be stolen. Everyone's views had to be taken into account in a collaborative evaluation of all of the events of the attack and its aftermath.

Once the individual outcomes of the encounter with pirates had been agreed upon we were ready to enact it and generate the details of the attack. Rather than proceed at life-rate that could well have become chaotic we asked the children if they would agree to enact it as if in the dreams or nightmares that the people had later. Those who wanted to move were happy to move silently in slow motion mouthing their cries and moving their arms to slash or avoid being cut by a blade. Those who remained hidden could watch without fear of being caught up in action that they wanted to observe but not participate in. And as the children moved I used what I saw and the information that had been already generated to narrate the attack.

Like all narratives generated in dramatic inquiry, this narrative could easily have formed the basis for shared writing at a later time in which stories of that day could have been recorded. We didn't have to ask the children to know that they had liked the story we had created. It had clearly been fit for the purpose and they evaluated it as such with enthusiastic smiles as we gathered on the floor to talk about what might happen next.

Robinson notes that people are not naturally evaluative. He argues that 'Helping young people to understand and manage this interaction between generative and evaluative thinking is a pivotal task of creative education' (31). In half-an-hour of collaborative dramatic inquiry every child, with adult assistance, had managed to shift back and forth between generating and evaluating ideas. None of the children resisted either mode of creativity. Both generating and evaluating ideas must have felt necessary. They had created the first episode in a narrative that

delighted them as individuals and as a group. And we noted their ability to work together, to invent possibilities, and to collaboratively shape their ideas.

MAKING SPACE WITH MATERIALS

When we had discussed the project with Angus Morrogh-Ryan and the teachers we agreed that Angus would take digital photographs as he observed us work with the Infants and Juniors. As an architect, he watched for how the children created and used space. On the birdhouse project he had created space with children using hand-held materials. He was interested in how children might use larger materials to create space that extended beyond the hand and into the room. In particular, he was interested in how they might use classroom objects to create imagined spaces. We agreed that as much as possible we would allow the children to make physical artifacts by using the materials in the room that were available to them including the furniture. We wanted them to be safe but we also wanted them to be able to generate ideas by imaginatively altering the classroom space.

It was fascinating to note the similarities in how children across the age range from 4-11 and across very different narratives used materials to make physical artifacts and manipulate physical and social space. Angus noticed that collectively the children especially wanted height and enclosures.

In contrast to the largely flat and very open and formless plane of the usual classroom spaces, Angus recognized that the children used the materials available to them to create very different social spaces. Whereas daily the children were usually all on the same level as they sat at desks or on the floor when we engaged in dramatic inquiry many children, some individually and some in small groups, desired to be physically above their peers. On the playground many children liked to climb or balance above the ground. Similarly, when given freedom in the classroom children wanted to explore the dimension of height.

Classroom spaces typically create open views among children and watching adults but these were not the social spaces that children created when given a free rein. On the playground, children divided into smaller groups based on friendship or activity. Similarly, in the classroom many children wanted to be able to separate themselves from others. They used tables to create boundaries some of which became enclosures. Outside, children would play games like hide-and-seek that accentuated separation. Inside, some children similarly desired to be able to hide underneath desks or behind draped pieces of cloth.

Angus spent the next two months designing and personally making twenty-four wooden ‘boxes’. Like the classroom teachers, in January we too had been concerned when a chair occasionally slid off a table and when children had caught themselves on table or chair legs that had been covered by cloth. But when the boxes Angus had made were joined they were secure and amazingly versatile. Angus had sanded and painted the boxes white using plywood with

drilled holes to make them relatively light to lift. Like a cross between giant Lego bricks and nesting blocks these differently sized boxes could be safely stacked to create height and could intersect to create boundaries and enclosures. In addition, Angus provided round-ended poles made out of broom handles that slotted into the holes.

On a Thursday morning in March when the children were in the hall having an assembly, we helped Angus carry into Liz's classroom two dozen boxes and poles that he had driven from London in his van. With the teachers' approval Tim and I had decided for our next visit to try out a plan that Tim had already used in several other primary classrooms with both Junior and Infant-aged children. There were still traces of snow on the grass in the playground echoing the patches of snow on the Pennines that had crystallized in the chilling wind. Though we realized that we would not be spending much time out of doors, we were secretly pleased that the children would have experienced cold winds and snow. That day we were about to ask the Junior children (and the Infants the next day) if they would like to imagine that they had the responsibility for rescuing a person stuck high up in mountains more rugged and remote than those they lived among, who in failing light and plunging temperatures had fallen and injured his leg.

INSERT PHOTOGRAPH 10-11
The boxes

We planned to engage the children in a particular type of dramatic inquiry, devised by Dorothy Heathcote, called the mantle-of-the-expert approach (Heathcote & Bolton, 1995). On our previous visit the older children had imagined that they were astronauts running a space-ship. Similarly, on this occasion the children would also imagine they were professionals. They would work collaboratively as members of a mountain rescue team running a rescue station. The injured climber would be one of their 'clients' who would contact them by mobile phone. Tim would represent him and I would facilitate as the children imagined talking with the climber stuck up a mountain in worsening weather. We were particularly intrigued as to how the children might use the boxes to create a mountain rescue station complete with helicopter and medical station, as well as radio and mobile phone communication. We had planned how they could gradually take on a 'mantle of expertise' through activities that would allow them to imagine that they had the responsibility of professional rescuers along with the expertise that they would have developed over time in order to carry out safe rescue attempts in the mountains. Their expertise would include flying a helicopter in dangerous conditions, providing emergency first aid treatment, as well as making and sustaining contact with a person stuck on a mountain.

The mantle-of-the-expert approach to dramatic inquiry
- Children imagine they are a team of professionals with expertise

- Adults represent clients or other people who need the team's expertise and who provide an emotional focus for team responsibility
- As children participate in collaborative team activities they take on a 'mantle' of expertise
- How to respond to client's needs becomes a core inquiry question
- Professional tasks also meet curriculum objectives.

The children in both classrooms initially asked if they could continue the work we had left off two months earlier. However, when we presented our new idea both groups of children were eager to imagine that they were the members of a mountain rescue team. We spent our first day with the Junior-aged children. As planned, Tim represented the climber as on the whiteboard I told a story and created a drawing of what had happened. After imagining talking with him by mobile phone they were eager to imagine that they were the mountain rescue team planning possible ways to rescue him. How to rescue the climber was a core inquiry question that sustained an entire day's work. At first the children planned in small groups by drawing ideas on paper. Then we introduced the boxes.

When we took the children to the hall, where we had laid out the boxes and poles, they were instantly attracted and eager to use them. Within half-an-hour, using the boxes and poles, as well as some of the gym equipment that included mats and ropes, the children had created several structures, notably a helicopter and a medical centre. That afternoon considerable learning occured as the children used artifacts to mediate their physical, mental, and social interactions.

MEDIATING ARTIFACTS

Primary artifacts: physical tools

As humans, we continually use mediating artifacts in our lives. People create artifacts for particular practical purposes. The *primary* use of an artifact is as a physical tool. A mobile phone assists in long-distance verbal communication. An ice pick can assist a person to climb in a frozen landscape and a helicopter can assist people in a rescue attempt. Over time, people acquire physical, mental, and social skills in using tools. In all cases an artifact mediates and can extend our ability to perform a task. Take away the tool and we have to find a replacement or we cannot function in the same way. No battery in your mobile phone if you are alone stuck up a mountain leaves you having to shout for others or make another artifact like a sign for help. Drop your ice pick and you may fall off a mountain. Have mechanical difficulty with the helicopter and your team may not be able to rescue someone.

When children play, they imagine that they have physical tools that are not actually present. They must mentally represent these tools for themselves in some way and socially represent them to others if they want to be able to imagine using those tools with someone else. A gesture, like holding a hand to an ear, can represent using a mobile phone both for any person imagining talking

into the phone and for people imagining hearing a voice and responding. Holding and moving a pole can represent an ice pick. And stacking boxes can create parts of an imagined helicopter. Whereas in an everyday space a phone is a phone, in the socially imagined spaces of play and dramatic inquiry using appropriate language with a gesture may instantly transform a movement into an imagined phone. Similarly, white boxes may be transformed into a helicopter. The significance of imagining objects extends beyond the primary physical function of a tool to tools as secondary artifacts.

Secondary artifacts: mental and social tools

In everyday life, artifacts have two interrelated mediating *secondary* functions as mental and social tools. Whereas physical tools allow people to perform new physical tasks, secondary artifacts allow people both to think-and-feel and to communicate in ways that are not related to a particular event. Secondary artifacts are conceptual having been abstracted from repeated primary uses of tools. Experienced climbers using mobile phones can conceive how to get help and inform others of their location. They have acquired more than technical knowledge about how to use ice picks, pitons, ropes, goggles, and other specialized equipment. They also have expert conceptual systematic knowledge previously abstracted through talk and action, and perhaps writing and drawing, in many events that allows them to think-and-feel about particular situations and to communicate with other climbers in order to make wise judgments about, for example, how to traverse different rock faces, how to respond to different weather conditions, and what choices they have in order to stay alive when they get into trouble.

All of these linguistic, procedural, and conceptual facets of expert knowledge are mental and social tools that can be considered secondary artifacts mediating thinking and communication. Mental and social tools are not located in physical objects but rather, using those objects may allow people both to access prior ways of thinking and communicating, and to create new understanding about particular events. In the hands of experts, physical artifacts are not just things. They give professionals access to individual and shared expertise that extends beyond the skill of performing a particular task. In the hands of non-experts, physical artifacts can activate some of the mental and social tools that actually mediate how experts think, how they use language to communicate with others within an area of expertise, and how they are able to participate in shared practices that extend their understanding. Though learning expertise requires extended and extensive participation in professional social practices, newcomers who are committed to learning can participate alongside more knowledgeable others in apprenticeships, for example student teachers learn alongside more experienced professionals in classrooms.

In collaborative dramatic play, children can, in effect, create imagined spaces which function like apprenticeship spaces. By imagining that they already have expertise, for example as mountaineers or pirates, children can build on what

they already know as they learn from and with one another through participation in collaborative activities. When adults join in the dramatic play, children can also learn from adults.

Because dramatic inquiry is grounded in dramatic play, all objects and related actions not only represent primary artifacts, they can also function as secondary artifacts. Children may transform objects into mental tools that mediate their thinking. When used collaboratively with other children and adults objects and actions become social tools mediating both children's communication and their participation in shared practices through which collaborative skills are contextualized and understanding can develop.

INSERT PHOTOGRAPHS 1 & 5
Objects and actions functioning as physical and mental tools.

When Peter and Tony wanted to imagine they were pirates, they did so by transforming into swords, pieces of paper they had just rolled up. Moving the rolls of paper and their bodies immediately accessed an imagined space as if on board an attacking pirate ship. They could begin to think about the world as pirates might. But in dramatic play mode they wanted to immediately rush on board with swords flailing. To slow down the enactment and creation of the tale and focus them on an aspect of their inquiry into what life was like at the time of pirates, I narrated that the pirates on the ship were loading their cannon to fire but that they waited because they were still out of firing range. When I moved to the boys and repeated the words to make sure that they had heard me, they stopped waving their swords and Tony wanted to pretend to fire a cannon. I gave him a toy cannon and asked him to hold it in his hand. As I narrated how the pirates loaded, fired, and reloaded the cannon as they sailed closer and closer Tony put down the piece of paper that had been in his hand, stood still, called out 'Fire' as he pulled and let go the plastic plunger on the toy cannon, and then waited for me to narrate the next volley before repeating the action. As I narrated and joined in the dramatization, I moved back-and-forth between what the pirates did and what was happening in response on board the merchant ship as sailors tried to escape the effects of the attack. Many spoke to one another and all children controlled their movement, made sounds, and made meaning using the physical space and physical artifacts that included the tables and chairs. In doing so the children thought about life through the eyes of the pirates or the merchant ship crew. They drew on whatever knowledge they had of cannon-fire, the movement and design of ships, and combined it with the information I gave in narration and dialogue, to experience, feel, and think about the violent attacks of pirates.

The children's talk and movement around their use of artifacts was always contextualized in an imagined social space where the pirates were working together to plan an attack on the merchant ship. Everyone was collaborating to create and enact the details of the attack and response. They generated and

evaluated possible outcomes. People chose where they were on the ship and what happened to them and the silver on board. The pirates thought they had stolen all the silver but then discovered that one of the girls had saved some by placing it in the rowing boat and escaping.

When children come to school they already know many ways in which to think and communicate about the world. They know how to mediate their individual and social actions as well as their thinking using primary and secondary artifacts. Children living in Weardale knew a great deal about walking in the mountains and staying safe. And they had learned from their parents, their teachers, and other adults in their lives who had much expertise in using language, materials, and social interactions to make meaning about the world of the Pennines and worlds beyond the dales accessible through stories, books, and the internet.

One of the primary purposes of education is for children to learn to think and to communicate in new ways. As children participate in the shared practices of schooling they build on and continue to learn and develop their understanding of the world through extending their language uses, applying core skills like writing and reading in new situations, refining their social abilities, and deepening their informational knowledge. Children must learn the functional uses of physical tools like pencils, paper, paintbrushes, tables, chairs, keyboards, balls, and skipping ropes to be able to write, draw, read, sit, and move in different ways. However, they must also develop their mental and social abilities to use the mental and social tools of spoken and written language, non-verbal languages like gesture, drawing, and music, as well as creating artifacts (from paintings to birdboxes and from pirate ships to imagined helicopters) so that they can think and communicate in novel ways and develop their ability to participate in social activities that will extend their connection with, and understanding of, the lives of others that may include birds, pirates, and those who live and work in the mountains.

<u>Creating new physical, mental and social tools in dramatic inquiry</u>
Dramatic inquiry can be an extremely significant way of organizing learning when it provides children with ways to access and create new ways to think and communicate about the world that just could not be available in the classroom but which are located in aspects of life about which they desire to learn more expertise.

In December, the day after we worked with the Infant children, the Juniors had spent the majority of one morning using tables and chairs to create areas on a space-ship that included the flight deck as well as eating and sleeping quarters. When tables and chairs were incorporated into play, they were not used to make sitting more comfortable but were imagined to be something else. Playing with the furniture allowed the children both to represent primary artifacts and activate secondary artifacts that mediated thinking in the imagined spaces of a space-ship that clearly could never have been brought into the classroom.

With only minimal adult involvement every one of these older children relished the opportunity to play again, as they must have been free to do when they had been in the Infant classroom. They moved back and forth between talk in classroom social spaces and talk as if they were astronauts in imagined spaces on the space-ship. In doing so they spontaneously enacted and touched on questions such as how they could move or eat or sleep when weightless on a journey in space, they would briefly talk back-and-forth for example like a captain to an engineer, and they participated in practices like serving weightless food or setting up ray-guns on the space-ship. All of these interactions were mediated by the use of mental and social tools that were accessed through the transformative use of physical objects.

Two months later the same children used the boxes Angus brought to the school along with gym equipment to collaboratively design, build, and use a helicopter and a medical centre as if they were a mountain rescue team.

For an actual mountain rescue team in the everyday world, a helicopter is more than a physical tool. The work involved in flying, staffing, communicating with, reacting to, and using a helicopter activates a host of individual and shared mental and social tools that team members would use. A mountain rescue team knows how to use a helicopter as part of a coordinated rescue attempt that relies on professional procedures and shared expertise. For example, rescue procedures, medical protocols, how to complete reports using specialist language or forms, how to order supplies, and how to communicate with headquarters. Any of these social practices can be activated for children through dramatic inquiry so that they can learn through participation in a variety of processes.

The physical artifacts that the children made were stable. Visually the children were able to represent clearly those parts of the objects on which they wanted everyone to focus. In the helicopter children wanted to have the flight deck, the rotor and tail, the stretcher bay, the winch, and the door through which people went down on the rope. The helicopter was represented by their use of the blocks, poles, ropes etc. It was not a realistic portrayal or mimicry of primary artifacts but rather a creation that for the children activated secondary artifacts. Similarly, other children created functional representations of the beds, check-in desk, and medical supply area in the medical centre. In ways similar to how they had created and imagined running the space-ship the children could now imagine flying a helicopter and managing the medical centre. However, rather than have mostly unfocused dramatic play, now the children had a tight focus on planning and carrying out a rescue. And the children could use all of the shared artifacts they had created. Those parts of the helicopter and medical centre that were significant for them became tools that mediated their individual and social thinking-and-feeling about mountain rescue.

INSERT PHOTOGRAPHS 12-19
Transforming the room into a mountain rescue station.

Tim and I were pleased when children applied their prior knowledge to aspects of the rescue mission that did not need to be carried out by everyone. Not everyone in a mountain rescue team knows how to fly, or navigate the helicopter, how to use the radio, or how to hover as others go down on a rope. As the children worked together to plan and enact different parts of the mission they shared ideas and learned from one another. And as we moved in and out of negotiations and dialogue with different groups of children we were able to extend or deepen their developing understandings.

Addressing curricular objectives as part of dramatic inquiry

As teachers, Tim and I wanted to focus the children's inquiry on aspects of mountain rescue that we desired the children to learn more about. We thought that an important curricular goal for all the children would be to learn more about first aid. As part of our inquiry into how to rescue people it was reasonable to negotiate with the children as team members about their need to know more about giving first aid to people we might rescue. At the same time, we had chosen the topic because we wanted them, as children, to know more about it.

After building the helicopter and medical centre but before we enacted the mission, we brought the children together as if gathered round a medical bed. There was a high level of commitment from all the children to being members of the mountain rescue team that was maintained as they collaboratively engaged for over half-an-hour with learning about administering first aid. One of the children volunteered to lie down as if he was a team colleague demonstrating the way a rescued person might be unconscious and in need of emergency tests. We created and made available to the children an informational sheet that might already be in the medical centre outlining the order in which testing and procedures should occur: vital signs, breathing, pulse, feeling for broken bones etc. We read this together and a couple of the older children who had recently taken a first aid course were very willing to share what they knew that amplified the information on the sheet. The procedures were each tried out. And we reflected to evaluate how best to treat a person to minimize any chance of further injury and to maximize their chances of recovery.

INSERT PHOTOGRAPHS 20-23
Learning how to administer first aid treatment.

CULTURAL SPACES AND WORLDVIEW FRAMEWORKS

In the cultural spaces that opened up during the days that we worked in each classroom the children were able to begin to identify with ways of framing their relationship with the world that can be regarded as core long-term educational aims. As the National Curriculum for England (1999) puts it, the core purpose of education is 'to promote pupils' spiritual, moral, social and cultural development

and prepare all pupils for the opportunities, responsibilities and experiences of life' (11). This is a view that is affirmed in the proposed revisions to the National Curriculum, where the aim of schooling is regarded as 'to enable all young people to become successful learners, confident individuals and responsible citizens' (Waters, 2006). To make such an aim a reality would require more than individual academic learning and traditional approaches to the teaching of 'knowledge, skills, and understanding'. Schools would need to build on children's everyday cultural competencies and their positive attitudes to learning. Over time, in classroom spaces as well as out-of-classroom spaces, children would need to identify with the sort of responsible adult ways of being in the world shared by professionals from teachers to mountain rescuers. And teachers would need to create the cultural opportunities for such a worldview to develop.

Among the children in Wearhead there was a pervasive demeanor of quiet pragmatic collaborative competence. Like the professional mountain rescuers we were to imagine with them, there already was a culture of working with other people, taking on responsibility, and caring for others that gave the children a framework for approaching life. Many of the children lived on or near hill farms where they had jobs to do before and after school that would have left me mystified but which shaped their days and year. As the saying goes, they had forgotten more about sheep than Tim or I will ever know. Many could talk about using an all-terrain-vehicle to herd sheep for dipping, searching with adults for ewes in snow drifts, transporting rams, or lambing at midnight. The children shared a cultural worldview that gave them attitudes of capability and readiness to participate in a practical adult world that children carried over into school spaces as they were dropped off just before 9.00 o'clock each morning by car or minivan.

<u>The local culture of classroom communities</u>

Whatever values and assumptions are shared in particular classrooms and schools determine the quality of life in those classrooms and schools and underlie children's disposition toward learning. At Wearhead the children were a delight to work with where the school and classroom culture was often very collaborative. The children enjoyed one another's company in the cultural spaces of playground and classroom. They valued and looked out for each other and there was no rift between Infants and Juniors. We regularly noticed older children helping younger ones tying shoes, sharing books, or playing together. The children were used to listening to one another, were consistently enthusiastic about whatever new ideas were introduced, and were ready to learn from one another and from adults. The children would readily and reliably take on responsible tasks from taking a note to another adult to looking for a mislaid camera case. And they were ready to assist adults ranging from daily tasks like doing the register to weeks-long involvement in running a play production.

A few weeks before my first visit Tony had moved from a large impersonal urban school on the coast to this tiny rural school in the mountains. To be able to 'fit in'

he had to learn the culture of the school and classroom and thus 'how we do things here'. He could only learn by participation in the established routines, practices, and procedures some of which created very different cultural spaces for him. He was fortunate that he had caring adults to assist him as well as welcoming children to accommodate to his different ways and be friendly toward him. And over the months of our visits he participated with more and more ease in daily activities so that by May it was as if he had been in the school since Reception. He joined in as children played and laughed together, walked quietly in class groups to assembly, sat in small groups by the easel, and worked alone or with others to read, write, draw, or paint.

Dramatic inquiry affects the classroom culture

Imagining with each of the classes of children for a day that we were in a world of mountain rescue created a mountain rescue team cultural space and a community framework in which a worldview could grow and be applied throughout a whole school day. Similarly, on our previous visit with the Infants we had created a cultural space of pirates and ships and with the Juniors a cultural space of astronauts on a space-ship. Our final visit created a cultural space of time-travellers in each classroom. Each of these spaces were cultural when the children implicitly or explicitly agreed that they represented 'how we go about our work'.

Because of other curricular and professional commitment the imagined worlds we opened up were developed to different extents after our visits. In the Infants classroom the world of ships and pirates was extended over several weeks after our first visit. What it meant to be a pirate was explored and recorded in stories that were created through dramatic play and inquiry. During their mountain rescue Carey had represented the trapped climber who was rescued in a snowmobile and the Infants' team continued to rescue and treat climbers during the week after our visit. The Juniors were able to complete their team designs but also had other projects that needed attention. And unfortunately, both Carey and Angus had professional commitments during our final visit and Liz was involved with planning a visit to Japan.

If, as teachers, we really want children to identify as successful, confident, responsible people who competently work together using language and other cultural and material resources in order to make life better for themselves and others then children need opportunities to actually engage in activities where they can develop those dispositions. Cultural spaces in everyday life learning can provide such opportunities like those that many Wearhead children had at home and at times in school. So can cultural spaces created in imagined worlds. Those cultural spaces are imagined but at the same time they are experienced in the everyday world of the classroom. Unlike the spaces of dramatic play that may be an escape from everyday reality, the spaces of dramatic inquiry are more often socially and culturally experienced, especially when adults enter into those spaces. And using the mantle-of-the-expert approach to dramatic inquiry can

open up additional powerful learning opportunities by creating cultural spaces where children can experience and may develop more of a worldview of professional values. When we created the mountain rescue framework with the children at Wearhead we were also working with the children to create cultural spaces that promoted the development of a professional worldview.

Everyone on an actual mountain rescue team shares a professional framework guiding collaborative action and dialogue that over time creates a cultural space of shared values. People use professional frameworks when they say things like 'That's how we do things in our line of work'. For example, when everyone on a mountain rescue team assumes that all have responsibility to engage in whatever appropriate tasks are needed to rescue someone then all share more than a social space of shared abilities. They share assumptions about why, how, and when they ought to act as a rescue team. Given that their job is likely to be dangerous, team members will expect to participate and collaborate in potentially hazardous missions. Rescuers are likely to risk their own lives to save others including other team members. However, the risks they take should be shared professional choices rather than individual reckless responses. And anyone working on a team would not expect to already know everything about how to successfully rescue someone. They would assume that they would continue to learn as part of their work, for example how to administer first aid. And finally, no one actually on a mountain rescue team would, for frivolous reasons, leave the mountain in the middle of a rescue.

These are the sorts of values that are likely to be inherent in a professional mountain rescue team framework. They are not optional individual beliefs but rather shared expectations and assumptions passed on to people in training and formed by participation in the daily community practices of a mountain rescue team. And the professional values that team members use to carry out their daily tasks are accessed through the mediating artifacts of a framework of expertise that develops through extensive and extended social practices within the local culture of a particular expert community.

Tertiary artifacts: cultural tools

Professional frameworks are examples of *tertiary* artifacts. Newspaper reporters, doctors, lawyers, and other people who develop expertise in professional groups (including pirates!) have over time collectively formed conceptual frameworks that may be written down as codes of conduct, alluded to in procedural handbooks, or implied in an organization's logo. Core documents or objects and the expected activities in which they are used are tertiary artifacts when people use them to know how to act professionally or how to interpret events in ways compatible with other like-minded professionals. As mediating tools they allow professionals to know what actions they are (or are not) responsible for. Tertiary artifacts used over time collectively form, shape, and develop a worldview.

A reporter's notebook, a doctor's white coat and stethoscope, and a pirate's skull-and-crossbones can all be used in community practices to activate mediating tools. So can a rescue team's helicopter or first aid procedure. Any tertiary artifact is not only a mental and social tool but is also a cultural tool. It is cultural in two senses. First, across time it is a mediating cultural tool because the meaning it has for particular users in one event invokes and relies on assumptions and practices historically created by previous similar groups of people in prior cultural spaces. Second, across space the meaning created in use extends beyond knowing how to act in particular social events to having a framework of assumptions for interpreting life across many physical and social spaces that are inhabited by people in a particular expert community.

Whereas a viewpoint, like an opinion, gives people a position from which they can interpret events, a worldview provides them with a way of synthesizing and making sense of many inter-related objects, social events, and cultural practices that are professionally connected. A mountain rescuer sees and understands mountains, radios, ropes, and helicopters in action differently from a newspaper reporter's observation of the same things and events. Each professional person perceives a different 'world' out there because they view their relationship with objects, events, and communities of people differently. Each activates qualitatively different cultural tools depending on the cultural assumptions that permeate their worldview. Yet every professional has a 'professional' worldview providing them with a framework for how they approach their daily activities. All professionals have dispositions like the following toward their work:

- actively choose to engage with activities
- be responsible
- show initiative to identify and work through problems
- collaborate with others as necessary in activities
- self-monitor
- seek assistance when needed
- complete tasks they have begun
- do difficult jobs that they might not want to do
- understand some of the complexity of their field
- expect to have professional development.

These are the sorts of adult dispositions that teachers and parents would hope that children would acquire as part of their 'learning for life'. Yet schooling tends to provide pupils with individual short-term de-contextualized tasks that are not experienced as part of a holistic field of study. And for children to acquire such values in relation to learning in school they have to be disposed to use artifacts to make cultural meaning in school settings. Unfortunately much of schooling, especially in secondary education, is learning the culture of 'how to do school'. And one of the problems with the culture of most classrooms is that the older children get the less they are likely to want to learn to 'fit in'. Children are less likely to participate in tasks that feel alienating. A sense of alienation is likely if,

in order to achieve required or desired learning outcomes, teachers are more responsive to rigid curriculum demands or externally imposed goals than they are to how they might build on children's interests, abilities, cultural resources, and social needs.

The children at Wearhead were often learning for life. For example, we saw them be highly enthusiastic, responsible, and self-directed when working with art supplies and they would seek help from adults and peers as they worked to complete extensive projects. However, some classroom tasks that they were given, like those given to children in schools the world over, often didn't rely on or promote development of their initiative, responsibility, or collaboration.

Though children in any school are rarely given the opportunity to develop an adult worldview in classrooms, they could begin to do so through dramatic inquiry, and in particular through using Dorothy Heathcote's mantle-of-the-expert approach. When children collectively imagine that they are professionals carrying out an inquiry they will begin to act and think with an adult worldview framework similar to the one that those professionals would use as they carry out their work in everyday life.

Professional worldviews are not the only cultural frameworks that people develop and invoke using tertiary artifacts. Ethnic, family, or local cultural models and theoretical frames are other pervasive frameworks people use to guide daily actions and interpretations of life events that they share with communities of people with which they identity. Growing up in Northern Ireland, having formed a worldview from regional, religious, and ethnic cultural models, I used a framework to understand spaces that were very different from those I encountered and developed later in life in England and then in the United States. And after thirty years as an educational professional, my evolving understanding of good teaching and learning has been mediated by core ideas of theorists and practitioners. For example, the complex and extensive ideas of Vygotsky permeate this paper. At the same time, I have abstracted my own educational framework, on the one hand, while learning how not to replicate oppressive schooling experiences from my upbringing in Ireland and, on the other hand, creating new pedagogy from years of my own theorizing practice based on the worldview of visionary educator Dorothy Heathcote and other scholars in the drama-as-education field. Core teaching experiences, significant memories, key articles and books, my own writing, notes, diagrams, charts etc. have all been intersecting and evolving tertiary artifacts from which over time I have abstracted, and continue to develop, my own theoretical framework that I pragmatically apply in classrooms.

All people collectively use tertiary artifacts across time and social spaces to create and maintain different cultural, or community, spaces with frameworks of shared values and assumptions (often implicit and unexamined) about 'how we

do things'. Classrooms and schools are communities with their own cultures just as tight neighborhoods have local cultures.

The cultural spaces that began to be developed through the work we did in each classroom were not added on to classroom physical and social spaces but rather were created over time out of social interactions where the children's attention was on shared professional community responsibilities within an imagined world. The cultural spaces were created in two ways. First, an adult professional culture grew through *participation* in activities that were contextualized in imagined professional spaces. Second, values were shaped and created through critical *evaluation* of imagined events from different viewpoints. These two processes intersected as shared community understanding developed of 'this is how we do things in our classroom'.

CREATING PROFESSIONAL CULTURAL SPACES

The activities that we offered the children were consistently more demanding than many daily classroom tasks but they were also more enticing and exciting. In the mountain rescue scenario, using a helicopter to rescue an injured trapped climber in deteriorating conditions on a mountain was highly engaging especially because the stakes were high since human lives were in danger. Yet, at the same time every activity was a thread in a cultural fabric of collaborative professional responsibility that was woven that day into the classroom cloth.

Using children's existing competencies

As the Junior-aged children participated in the community practices of the mountain rescue team, they began to form a professional worldview that in imagined spaces built on and extended their own existing cultural competencies and values of collaboration, respect, and responsibility but utilized collaboratively to create intersecting imagined events in an extended multi-faceted cultural space. The work affirmed and developed the children's existing best collaborative practices.

The imagined professional cultural space of mountain rescue did not arise on its own. It was not separated from classroom spaces but rather grew out of, and overlapped with, everyday social and cultural spaces. As teachers, Tim and I consistently supported the creation of professional cultural space by the children through their participation in activities that were at the same time engaging for them as children as well as being the sorts of professional practices in which actual rescue team members would participate. Within the first hour the children had used their hands to imagine mobile phones that they used to talk to the climber, had collectively invented and talked about previous team rescue missions, and in small groups had begun to draw up plans for possible ways to rescue climbers.

Abstracting cultural values and understanding using tertiary artifacts also intersects with and builds on children's abilities in using primary and secondary

artifacts. Using imagined physical tools the children were immediately engaged in imagined professional activities not possible in classrooms but ones in which they might already have ability (e.g. talking on the phone to someone up a mountain). The children could also imagine team tasks that became secondary artifacts (e.g. drawing how to use a winch to lift a rescued person onto a stretcher). Gestures, some movement, drawings, and accompanying talk with some writing, were all different representations of objects and events that, in imagination, were occurring in a world of mountain rescue that grew in the classroom that morning. The classroom social activities created imagined contexts in which these representations could function as mental and social tools that mediated, for example, the children's developing literacy understanding appropriate in situations that were important but unlikely to occur in classrooms (e.g. how to talk to an anxious person on the phone), or extending their procedural knowledge (e.g. how lowering a winch with colleagues is similar to, but different from, individually using a piece of string to hang up a drawing).

INSERT PHOTOGRAPHS 24-28
Children using physical, mental, and social artifacts.

<u>Focusing on professional concerns activates the need for cultural tools</u>
Representations of objects, actions, or ideas in the imagined world of mountain rescue could also become cultural tools whenever the children's attention turned to professional concerns and responsibilities. In the very first exchange with the trapped climber one of the children said, as she imagined holding a phone, 'Don't worry. We'll come to get you.' She was thinking about the actions, not of children, but of rescuers. And as the conversation as if by mobile phone continued, the children individually and collectively began to invent with us what they, as rescuers, might do.

> Child A: Where are you?
> Tim/climber: I don't know exactly. Somewhere high up the mountain. I fell when I was about half way to the summit.
> Child B. What's the weather like?
> Tim/climber: The wind is quite strong. It's snowing. It's cold. I can't see the clouds and it's getting dark.
> Child B: Don't worry. We'll come to get you.
> Brian (turning to a drawing on the whiteboard made during telling a story of what happened showing the mountain rescue station and helicopter pad as well as the climber's route):
> So, if he's here, how are we going to get him back?
> Child C: We'll lift him up in the helicopter.
> Brian: Would you like to imagine that we did that?
> (Enthusiastic nods all round the group.)

We continually assumed an attention to professional responsibilities as we negotiated over activities and interacted with the children. We both talked with

them as if we too were members of the team or as teachers we talked with them as pupils about the people and the situations we were collectively imagining.

Collaboration was one of the professional values that we continually focused on whether we interacted with the children as teachers or as if we were part of the mountain rescue team and whether the children were in small groups or working as a whole class. When we talked with the children as teachers we positioned them as co-inquirers investigating the following question: Why do some people put their lives at risk to save and protect other people? We negotiated with them about participation in activities and facilitated children sharing ideas as we reflected with them about the meaning of imagined events. We were interested in children sharing responses and building on their questions and ideas about the topic. Individual or small group ideas were often shared with the whole group. For example, as the children drew plans we stopped several times for people to share an idea with everyone. We were careful to choose people who often did not push forward their ideas. 'Have a listen here to this idea. Did anyone else think about using night goggles?'

Responsible collaborative action was similarly assumed in how we addressed the children in imagined situations. From the first activity when we talked to Tim as if he was on the mountain in failing light and falling temperatures we consistently positioned the children as if we were all members of a team with shared adult professional responsibilities. We talked about what *we* might do. And we asked evaluative questions like 'How would that idea help *us* to rescue the climber'

<u>Cultural tools formed in the transformation of drawings to social enactment</u>
In the afternoon, using the boxes and gym equipment in the hall, the children transformed the plans they had drawn in the morning into a helicopter and medical centre. Ideas that had been created on paper in small groups now had to be amplified to life size as they were amended, passed over, or synthesized since not all ideas could be represented physically. Just as they had done two months previously the children were eager to move objects to create physical and social space.

Once the core objects and places in the rescue centre had been created the children, as team members, were ready for first aid training, an enactment of the rescue, and a final reflection on life in a mountain rescue team. The children sustained working all afternoon on the rescue scenario moving without difficulty from creating physical artifacts to adult mediated complex whole group interactions. Uses of the boxes, the gym ropes, mats, and benches, as well as previous drawings in conjunction with shifts in language, all evoked key mediating tertiary artifacts when the children used them to imagine that they were in the world of the mountain rescue team.

The children's talk was not just about moving boxes or using ropes but about how different arrangements of the objects created different outcomes. Some

used previous ideas while others created new possibilities. Some children retrieved their drawings in order to show one another. Others moved the placement of an object saying that one way of doing it was better than another.

INSERT PHOTOGRAPHS 29-33
Transforming plans into physical objects.

As the children and we adults collectively imagined the world of mountain rescue, children's ideas were played out and made visible to all in urgent (and later, imagined dangerous) team situations where the value and need to collaborate became both more imperative and more obvious. Again, we were impressed with how well the children were able to negotiate and create together. Very rarely did we have to talk to children as pupils who needed help in focusing seriously and collaboratively on the work at hand. A few children, both boys and girls, would on occasions lose focus. In every case, when we talked with the children they readily refocused.

For about twenty minutes the entire class was involved in enacting the actual rescue. I lay on the ground to represent the injured climber while Tim took responsibility for operating the winch. Liz, as if a member of the team in charge of supplies, had given out imagined jackets, hats, medical equipment and any other materials the children could justify needing for the mission. After loading the helicopter and equipping the medical centre those who imagined they were piloting the helicopter talked through take-off while many children made the sounds of the engine. Others operating the radio talked as if to people on the ground. Most of the children running the medical centre continued to prepare for the arrival of the climber. In pairs, some practiced the first aid procedure we had gone over as a whole group. A few watched the events unfolding round the boxes representing the helicopter.

INSERT PHOTOGRAPHS 34-38
Enacting the rescue

Tim narrated as the children imagined speeding to the mountain in the failing light. Some children seemed to shiver as one child called out a temperature of -20C. All on board were on the lookout for the climber. Once spotted, a boy called out the forward speed and counted down to zero as Tim narrated that the helicopter slowed to hover. Others were checking on height and wind speed. Several children were eager to go down on the cable to bring the climber up on the stretcher. As the winch operator Tim could organize and provide necessary direction to those children. Four children, one at a time, crawled horizontally along the floor toward me imagining they were actually hanging from a hovering helicopter. I lay still as if unconscious as the rescuers gently worked together to test for vital signs and ready the stretcher. Tim reminded them not to actually move me. As if via radio they called back to the other children on the helicopter who offered their suggestions and cautions.

Be careful.
Tie the rope tight.
Don't let go until we tell you it's safe
Hang on. We'll get you back.

And they did. Tim paused the unfolding narrative so that we could move focus to arriving at the medical centre where one of the children now represented the climber lying on a bed. With Tim's facilitation, the children reminded each other how to apply the first aid procedures we had gone through before the rescue. Cultural tools developed earlier were now activated and applied in a new situation.

Cultural tools formed through participation in activities

For different children different collaborative moments of the narrative they experienced would have been core experiences. By participating in activities like adult professionals the children would have had some experience of all of the dimensions of professional frameworks listed above:

- actively choose to engage with activities

The level of self-directed engagement was extensive for all children.

- be responsible

All children acted for most of the day like responsible adults.

- show initiative to identify and work through problems

Discussion and analysis about how to carry out the rescue was a thread throughout the day's activities.

- collaborate with others as necessary in activities

Everyone worked with other people often over long periods of time.

- self-monitor

Children either sustained their involvement across activities or refocused with some adult input.

- seek assistance when needed

Children would turn to peers and adults as needed.

- complete tasks they have begun

All tasks were completed.

- do difficult jobs that they might not want to do

Children kept at the work.

- understand some of the complexity of their field

The enacted rescue required coordination of multiple people's skills that could only be inferred from the children's previously drawn plans.

- expect to have professional development

All were interested in learning more about first aid in the context of preparing to attend to the injured climber.

The importance of shared goals for activities

A significant difference in the mountain rescue work from the creation of the space-ship two months previously was that the rescue was driven by a shared goal of collaboratively inventing and implementing a mission that sustained and focused the development of a more extensively multi-dimensional cultural space. Rather than create disconnected ephemeral parts of a generic space-ship and individual narratives, as members of the mountain rescue team everyone had clear intersecting shared objectives that had been established in the first ten minutes of the day's work when everyone imagined talking to Tim as if he were the trapped climber. During the afternoon construction phase those working on creating the helicopter tail had to negotiate with those working on the cabin. Those setting up one medical bed had to coordinate with those imagining the use of medical supplies. And during the enactment of the rescue phase any one person's actions had to harmonize with those of the others.

When the children had created the space-ship two months previously dramatic playing had opened up imagined spaces in which many children with great enthusiasm invented, participated in, and sustained small group narratives. A few of the children mostly played alone as they created individual narratives. All narratives were mostly repetitive or short-lived, changing focus as the children moved and rearranged tables and chairs. The children's activities had created playful cultural spaces but they lacked the professional purpose and responsibility that was apparent in the mountain rescue scenario. The girls had mostly created domestic events of sleeping and eating tinged with the outer space dimension of weightlessness. The boys had mostly invented technical or violent stories of damaged engines or invading aliens. The values that were evoked were quite different from those implicit during the mountain rescue events. Here are words and actions from the same boy two months apart:

> Paul has his hands clasped as if holding a large gun. He is sitting on the ground behind a turned over table beside Jake who is holding a chair turned with its back on the edge of the table and its legs representing a gun. The boys are both making machine gun sounds.
> Paul: Fire! Quick. Look, there it is again. Quick. Got him! Yeh. Give me that now (reaching out for the chair, getting up to take it from Jake and move it closer. Then making sounds of machine gun fire).
> Five minutes later Paul is sticking paper on to a chair leg. He tells me it's ammo. Jake has joined a different group.
> December, 2006
>
> Paul has his hands clasped on a rope. He is standing on a box looking down and following what is happening on the floor of the hall. Jim is holding the other end of the rope as he crawls along the ground toward me representing the injured climber.
> Paul: Don't drop the line. Tie it on. We've not got a lot of time. Jim, take care. Make sure he's breathing.
> March, 2007

Engaging all children in community activities

Two months previously, a few individuals had seemed drawn to, but on the edge of, small group narratives. One boy, David, was content to use a chair and table turned sideways as he pretended to fix an engine and activate a laser gun. A girl, Tina, watched a group of girls hiding under blankets draped over chairs but didn't negotiate her way into their sleeping quarters.

Both of those children were more socially involved and engaged in the mountain rescue than we had seen them socially engage previously, including when they had participated in making the space-ship. During the construction of the helicopter, David again invented his own imagined scenario as he sat on a box using a broom handle. He may well have been inventing another alien attack. However, once the actual enactment of the rescue got underway he was socially more engaged that we had ever seen him previously. He helped hold taut a piece of rope that represented an imagined winch, he imagined being in radio contact with the injured climber, and he supplied rescue equipment to those who went down on the winch. Tina was similarly more involved with the medical team. When the stretcher arrived at the rescue centre, represented by hands placed as if holding the stretcher, she was one of those who helped carry it in. She stood close in as the person was examined. And she offered suggestions as to what to do first. Everyone agreed that we should see if the climber was still breathing.

By the end of the day, having actively participated in many of the cultural practices of a mountain rescue team all children had created and experienced living in an extended complex cultural space. The cultural space had grown out of the children's existing interests, energy, and collaborative abilities all of which, with adult mediation, were directed toward creating extended intersecting engaging imagined events in the lives of a professional mountain rescue team. All activities on that day were authentic in the sense that they were the sorts of tasks and practices that people outside schools engage in. There were almost no inauthentic tasks that would only make sense in a schooling culture. At the same time, the creation and experience of the mountain rescue space extended the usual classroom demands made on the children's values including their need to collaborate, listen, co-ordinate ideas, and be respectful. They didn't only work with their friends because the situations demanded that they work together. That meant listening to, respecting, and building off others' ideas. Through their physical, mental, and social actions in that cultural space as they used the boxes, ropes, mats, and other materials children abstracted aspects of professional adult worldview framework.

Building cultural spaces across time

Cultural spaces were developed in both classrooms during each visit we made to the school. Every time we returned to the school we were warmly received and the children were keen to continue to work together. Over time we developed a

cultural space where collaboration and taking on responsibility in dramatic inquiry was expected and assumed. At the same time, our teaching in the particular cultural spaces of each visit built on, extended, and shaped the cultural assumptions and values that the children brought each time to the work.

Our work consistently promoted the professional values outlined above. Over a five month period we made three two-day visits to the classrooms. On each visit, with the children, we created imagined spaces where they took on the 'mantle of expertise' and always had adult responsibility. The Juniors created a space-ship the day after the infants had negotiated with the owner of a ship attacked by pirates to advise him what do with the crew of the ship. On our next visit both groups, as mountain rescue teams, planned and carried out rescue missions. For our final visit we turned attention to time-travel. The Infants wanted to go back to the time of the dinosaurs as dinosaur scientists. For the Juniors, who wanted to make another space-ship, we invented a scenario. When we shared our plan they all wanted to imagine that they had joined a secret government project, hidden inside a mountain, where a time-machine was being built capable of moving anywhere in time or space.

In this section I analyzed how cultural spaces developed as children participated in activities that were contextualized in imagined professional spaces of shared adult responsibility and collaboration. In the next and final section I consider the intersecting process through which shared community understanding of 'how we do things' can be critiqued and extended. Shared values can be shaped and created dialogically through critical evaluation of imagined events from different viewpoints.

DIALOGIC SPACES

In all cultural spaces, whether those of everyday life or imagined worlds, people assume that their daily actions are examples of 'how we do things around here' and that their everyday views are how people generally think about things. In dialogic spaces those worldview assumptions may be questioned when people shift their position to evaluate actions and ideas from different viewpoints. Dialogic spaces are not necessarily created in dialogue or conversation. Exchanges between people are only 'dialogic' for people who take up a different perspective using it to evaluate a previous position that has guided their prior deeds.

In dramatic inquiry, children step into imagined landscapes so that imagined spaces become both 'here' and 'now'. By taking dramatic action alongside others, children experience 'how we do things' in spaces that are both socially imagined and still in the everyday classroom spaces. In dramatic inquiry children and adults can always shift their positions. Rather than just talk about how others might view events or could act, children and adults interpret and evaluate events from the viewpoint of other people and they take action as if they were

those people. Some of the implications of adopting a particular position are made visible to all when talk is enacted, views are carried into action, and the consequences of actions are evaluated from different viewpoints.

In the Infants classroom we had created dialogic spaces from our first visit. Tony and Peter, the two boys who had wanted the ship owner to sack the crew of the ship for letting the pirates steal the silver had to reevaluate their view. I reminded everyone that not all of the silver had been taken and we watched as Tina showed how she had hidden and escaped with a bag of silver which she then brought up to the owner. Then, Jane, one of the youngest girls, with much support from Carey, confronted the older boys to say that they'd saved the captain's life. She had watched during the pirate assault as children had stood in the doorway in front of the captain and fought off the attackers. One of the crew had died then. Tim, as the ship owner, asked the boys what they should do. Peter said they needed a funeral and that's what we had. The boy who had originally chosen to die in the attack didn't want to represent the body but Maria did as everyone gathered round to remember what they liked about her. What to do with the crew? Peter said they should have a silver coin each and Tony helped him take coins from the owner to each member of the crew. Tony included the mother of the dead sailor, who had been represented by Julie, a teaching assistant who had joined in.

In a dialogic space, Peter and Tony were able to change their view. Rather than use their power to dismiss others after hearing other views and participating in shared activities, they had altered their previous idea. And in dramatic inquiry they could enact that change in a social and physical space that over time might affect how they each fitted in to a cultural space that assumed sharing and kindness for everyone in the room.

Months later we again created dialogic spaces when we traveled back in time to imagine helping a sick baby dinosaur. When we talked with the children about dinosaurs before using dramatic inquiry with them, though most of the children knew the names of dinosaurs they had not thought much about dinosaurs as animals that ate, drank, and had babies. We had fun imagining the movement and noise that might happen in a time-machine if we returned to the age of the dinosaurs. Then as if we were people who studied dinosaurs we looked for dinosaur tracks, hid from carnivores, and then spent an hour tending a panting baby T-Rex that was lying on its side. We didn't approach it until we had decided that either its mother might have been killed but that it might return at any moment. However, everyone agreed that the baby still needed our help. One girl, whose puppy had been sick, was sure that it needed water. Peter, lay still for us, as I mediated the children enacting their suggestions for how to give it water without getting hurt by its claws or teeth. At the end of our time with the children we asked what they knew now about dinosaurs that they hadn't before. The children told us stories about what they had just done. One girl said, 'I like dinosaurs now' and a boy said, 'T-Rex's could kill all of us'. It was hard to know

what ideas were new for the children. However, the children had clearly made their ideas visible to another by enactment. Those who'd not thought about dinosaurs as creatures that lived and died and had babies were presented with a whole new way of experiencing and thus viewing those extinct creatures. The boy who was adamant that Tyrannosaurus Rex could kill everyone in the class may have had a revelation about the physical power of that 'tyrant lizard'. And the girl who said, 'I like dinosaurs now' was clearly reevaluating her prior position.

In the Junior-aged classroom, dialogic spaces were created in the time-machine scenario when children critiqued a cultural assumption that people should go along with what those in authority tell you to do. They demanded genuine dialogue when they were adamant that everyone in a group had to be heard before decisions affecting everyone should be taken.

On our final visit to the Junior classroom in May, the children were eager to imagine that they had joined a project to build a time-machine. As if they were engineers and other technical advisers, who had been handsomely paid in advance, they collectively imagined a secure secret site hidden inside a mountain that would be safe from attack, including the 'bunker-busting' nuclear bombs that one boy informed the group about.

We imagined a secret meeting to which I welcomed them, as if I were General Oppenheimer the military commander of the 'Time for Peace Project' headquarters. I said that the President of the United States himself wanted to thank them for agreeing to advise on the completion of the time-machine that would be used to promote world peace. When they asked for more details I said that I knew no more since the project was under civilian control. On being assured that they were advising on an intensive construction project that if successful should save thousands or millions of lives, they agreed to work at the site and leave their families for a period of a year. We ended the meeting with them taking an oath of secrecy.

After they invented a system of security checks and passwords so that those working there would be safe and secure they used the boxes to set up work areas. We narrated how they had traveled to the mountain and imagined entering the facility. They began to imagine working in their areas until Tim asked if they'd like to overhear the General on the phone to the President. We asked how this might be possible and one pupil suggested that he had high-tech mobile phones that could pick up conversations on other phones. Everyone liked that idea and moved their hands as if to hold mobile phones.

I moved my hand as if I was picking up my red phone as the children listened intently.

> "Mr. President, this is General Oppenheimer. I wanted you to know that we are about to fax you a memo. …. Yes, it's labeled Top Secret …. Yes,

> Mr. President, the new advisers do have the expertise we need …. I can confirm that they will all begin working on the project immediately. It should be finished within the month …. Yes, that's right, they can't leave'.

As I had been speaking I had looked at a piece of paper in my hand and then placed it in a folder labeled 'Time for Peace Project'. Then I moved as if I had been called away, leaving the folder on my desk.

In a hastily called meeting of the new project advisers (that included Tim and me) Jack, a Year 5 boy, was adamant about sneaking into the office of the General to remove a copy of the memo that they assumed he had just put in the folder on his desk. Some of the younger children thought it would be wrong to go into his room and take the memo without asking. Though they didn't say so, clearly in their classroom they would never have looked in a teacher's desk. But whom could they ask? Jack said that he didn't trust the General because he had not been telling us everything that was going on. He said he thought the General had been lying to us. Jack's ability to infer was used for the benefit of the group. He noted that the General had said that he knew nothing else but that he must have known more than he had told us in the first meeting. When asked by another pupil how he could know that he was lying, Jack said we should look at the memo and then confront the General and demand to know the truth. No one spoke against Jack's plan and the others agreed to distract the General as Jack snuck into his office.

Significantly, over the time of our visits we had noticed that Jack often worked alone. He had a powerful imagination that he had used in the mountain rescue scenario to invent an elaborate rescue plan. Though he fully participated in enacting the rescue, when it had been time to create the helicopter it had been too difficult for him to compromise over his plan for the control cabin and he had ended up building his own control area. But in the time-machine scenario, his maverick, questioning spirit provided moral leadership for the group.

When Jack retrieved the memo the children were faced with ambiguity. The memo (which Tim and I had written) was just a sentence with a list of names:

> 'The following people are for your consideration: Hitler, Saddam, Mussolini, Idi Amin, Bin Laden, Stalin, Pol Pot, Castro, Mao Tse Tung, Lee Harvey Oswald'.

The children, en masse, now wanted to confront the General. I walked away and representing him again returned as if coming in the door. When they showed him the memo the General/I was displeased. But the children were not to be derailed by an upset adult who said they should not have been in his office. They wanted to know what he had been saying about them behind their backs and accused him of lying to them. It is important to stress that we had planned this encounter knowing that the children had relished working with us and had

grown to trust us as teachers. They knew that we had never deceived them. We had decided that they were ready to play along with exploring the social and cultural consequences of deception.

The children, as professional expert advisers, demanded to know what the memo meant and how the time-machine was to be used. The General agreed to tell them the plan if they swore to secrecy. Some would only trust him and agree after he apologized for not telling them before. He told them that politicians had made a decision to use the time-machine to return to a previous time in order to kill a person who had caused the death of millions of people. Some of the children knew different names on the list. Everyone recognized the first person listed because they had been studying World War II. Tim and I had deliberately put Hitler at the head of a list of other dictators who had been responsible for the deaths of countless people. We thought that how they would think about the Fureur might allow the children to review what they understood about leaders responsibility for deaths in wars.

When the children, as advisers, asked the General why he had not told them the plan previously I said that as a military officer I was just following orders and had been told not to tell them. They were not impressed with this logic and they continued to press for an explanation. Why had I said that they could not leave? I explained that the project's successful completion needed their expertise.

Feeling the heat I paused the unfolding enacted narrative and congratulated them on how they were pressing the General for answers. I laughed, and they smiled, when I said I was glad I wasn't actually him. I asked the children why they were so upset. One child said that she thought it was wrong to not tell people how their work would be used and others nodded. I thought of the birdhouses and how Angus had involved children of the same age in the entire project. I thought of how Liz and Karen had involved the children in school plays and communications with children in Japan. This principle of openness and involvement was being productively challenged -- none of the children were going to back down on it even when faced with a General who had locked them inside a mountain.

Returning to the imagined space, and with an eye on the clock, I shifted the discourse to the purpose of the project. As the General, I apologized again but said that the project would go ahead as soon as the time-machine was completed. I asked for volunteers to go on the first mission to assassinate Hitler.

A heated five-minute discussion followed. At first, two or three of the children thought that killing Hitler would be a good idea. When one person said that 'You aren't being peaceful if you kill someone' another person responded that, 'It's better to kill one person than let them kill millions.' But, when I pressed for people to volunteer to actually go in the time-machine no one would do so.

Though one Year 6 girl said, ‘You might change things in our time that you didn’t want to change’ this idea clearly needed time to explain. And when another person said, ‘You can’t change what happened’ others seemed to coalesce round this historical discourse. Beside, it was past time for the children to go home.

Our use of dramatic inquiry had created dialogic spaces in the Junior classroom. The children gradually took up the viewpoint of professionals working on a project to build a time-machine. The implicit worldview of the project was quickly contested from positions that children brought to the work. One boy’s point of view challenged the idea that some children had expressed that they should never take the initiative to investigate an adult’s actions if they suspected they had been deceived. Though we did not have time to draw connections with their everyday lives, in our own classrooms we would have used this event to have a sensitive discussion about how possibly to respond if they were ever unhappy with the behaviours of older children or adults. Additionally, we were pleased that the dramatic exchanges with the General had created a dialogic space in which the ideas of consultation, and of inclusion in decision-making, had been so powerfully affirmed by every child. Again, at another time, we could have used that strong declaration of principle to have a discussion about everyone’s responsibility both to listen but also to create a space where other people could be heard. Finally, we opened up a dialogic space that raised questions for the children about killing and war but in which we could only begin to touch on the complexity of how people might or might not act if they knew what outcomes might be avoided.

Before going to waiting cars and minivans many children asked if we could come to work with them again and were visibly disappointed when we said this would be our last trip. But we thanked them and told them that we would never forget what we had created together. When we asked the children if they would recommend this way of working to other teachers there was a resounding ‘Yes!’. As one boy said on his way out, ‘It might cheer other people up so their school would become a brilliant school’.

A CONCLUDING SPACE

Space at Wearhead Primary School changed throughout the six-month period discussed in this report. By the time of our last visit in May, 2007 Tim and I were delighted to discover that officials from the local authority, having reversed their previous decision, had allowed the school library to be reestablished in the storeroom. That slight increase in the amount of physical space available was highly significant for the children we talked to. All of the Junior-aged children, and some of the Infants, seemed delighted that they again had a space where they could go to read and work on projects. A small change in how physical space was used had a huge effect on the school cultural and social spaces. Similarly, over that same period of time, as the children engaged in dramatic

inquiry, multiple uses of the boxes Angus had purpose-built for the school qualitatively changed the classroom learning and teaching spaces. On each of our return trips children and teachers eagerly talked about our previous visit and were enthusiastic about beginning another dramatic inquiry unit.

Spaces are physical, social, and cultural. These three dimensions of space intersect in classrooms as they do in all sites of human interaction. Where we move and where we place physical objects in relation to each other affects the quality of the social relationships that develop which in turn determines the culture that forms in the classroom and school. The culture of the classroom includes assumptions about how children and adults ought to relate and how the physical space should be arranged.

Classroom spaces are creative and dialogic when teachers use dramatic inquiry. Dramatic inquiry activities always create new space by transforming the existing cultural, social, and physical classroom spaces. Any ships, helicopters, mountain rescue stations etc. created will support pupils' learning in ways not possible in everyday classroom spaces as children create meaning by using these and other objects, in combination with their movement and language, as artifacts. The creative space of dramatic inquiry simultaneously, and unavoidably, affects the physical, social, and cultural dimensions of classroom space. Social interactions, as if we are other people, and the physical movement of people and objects, as if we are elsewhere, opens up space for the creation of a local culture of running a ship, a mountain rescue team, or a time-machine crew where children shape their worldview through participation in professional activities. At the same time, the dialogic spaces of dramatic inquiry will also affect classroom space when children take up viewpoints on their imagined actions that they then use to critique aspects of their own developing worldviews and thus their cultural assumptions about how social and physical space could be arranged.

One of the challenges with using dramatic inquiry is that to affect children's learning by changing social and cultural space teachers have to change the classroom physical space. Not all teachers may be as ready to experiment with changing physical space as Carey, Liz, and Karen were. Hopefully, this report will encourage teachers in other schools to question their assumptions about what the physical spaces of classrooms should look like when children are learning.

Other classrooms won't have boxes like those made by Angus though perhaps some schools will be inspired to have their own constructed. Though not as generative or as versatile as the boxes, the Wearhead pupils did show how effective creative uses of classroom tables, chairs, pieces of material, and gym equipment can be. The children delighted in transforming their classrooms into imagined spaces. And they welcomed all adults who joined them in creating imagined worlds. Tim and I were eager to participate in imagined events with the children. We knew that movement of objects and people in the physical space in

combination with how we interacted with the children would change social and cultural classroom spaces that would in turn significantly affect the children's learning.

The spring sunshine lit up the glistening Wear as we drove down the dale from the village for the last time. Like the widening river fed by local streams we too had been enriched by the children and adults we had met over the previous five months as we extended our understanding of the educational power of dramatic inquiry. Though no equivalent of the birdhouse had been erected in the playground to recall the remarkable creativity and learning that we had witnessed and mediated in this primary school we were content to know that nestling in the classrooms were the two dozen boxes that Angus had constructed. We knew that the boxes were ready at any moment to be transformed into ships of dramatic imagination that could transport children and teachers to whatever perilous mountain or tranquil valley in any time or space they might want to explore.

AN ACADEMIC POSTSCRIPT

Because I knew that this report might have a wide audience I decided to reduce academic references to a minimum. This postscript is for those readers who are interested in the theoretical assumptions about learning and teaching that I brought to my analysis.

I am primarily concerned with how learning and teaching are affected by social relationships and the local culture of classroom communities and schools. Thus, my focus is less on assessing what particular information or skills individual children may have acquired, or on a decontextualized analysis of adult or peer teaching, than it is on how changes in the social and cultural dimensions of classrooms affects both the ways in which children learn and the ways that adults mediate children's learning.

'Space' is a central concept in this paper that I borrow from geography. Space can be conceptualized as social and cultural as well as physical. I rely, in particular, on Henri Lefebvre (1991) who argues that every social group produces its own space. Space is never empty but is rather perceived differently depending on people's values. Space is then used differently in social and cultural practices that are affected by the power relationships in any group. The theories of Michel Foucault (1980), in particular, inform my understanding of power relationships: power circulates among people, accumulating in social practices (like teaching) and the culturally derived authority of people (like teachers and dominant children). The power relationships between children and adults, as well as between individual children or within groups, in different classroom activities, affects how space is perceived and how it is used to close down or open up possibilities for learning and teaching.

Classroom uses of drama-as-education, or what I call 'dramatic inquiry', have been a long-term practical and academic focus of mine. I build on the practice and theories of Dorothy Heathcote (1984), as well as those who have extended her approach. She was the first person to advocate for direct adult involvement in improvised drama and the first to outline a use of drama for learning (Heathcote & Bolton, 1995) rather than for performance. A primary concern for me in relation to adult involvement is how social interactions in improvised imagined spaces affect power relationships in social and cultural classroom spaces (and thus how children may learn and how adults may mediate learning). In addition, I am interested in how imagined spaces open up conceptual areas of inquiry that are not readily available for examination in classrooms. At the same time, I am interested in how dramatic inquiry creates spaces for the situated learning of literacies and the interpretation of literature.

A focus on social and cultural space overlaps with my foregrounding of the socio-cultural dimensions of learning and teaching. Rather than adopt a cognitive approach to learning with a focus on how individuals construct knowledge and

how classroom environments affect individual cognition, I begin with Lev Vygotsky's (1978) assumption that conceptual learning is always social first. A child can construct or create knowledge with others in 'zones of proximal development' that will open up possibilities for experience and understanding beyond what they could achieve alone. How and what may be learned by each child is affected by their current and prior relationships with particular adults, or peers, as well as how their cultural resources are made available.

Also central to this paper is Vygotsky's theoretical assumption that learning that is not rote can only happen in meaningful mediated activities. A person's construction of meaning is mediated by artifacts that may be social and cultural, as well as physical. I use Wartowsky's (1979) extension of Vygotsky's theory as an organizing device to analyze how, in imagined as well as everyday spaces, children and adults use primary, secondary, and tertiary artifacts to create individual, social, and cultural meaning.

My view of 'knowledge' extends beyond Patricia Alexander et al's (1991) well-known typology of the procedural, conceptual, and metacognitive, to include situated social and cultural knowledge (Lave & Wenger, 1991; Holland, et al, 1998), socio-political knowledge (Apple & Beane, 2007), and ethical knowledge (Edmiston, 2008). I turn to cultural anthropologists (Holland, et al, 1998) to conceptualize how people learn through identifying with cultural groups and thereby develop social-cultural and ethical identities. All of these forms of knowledge, in my view, should be part of the curriculum. In addition to gaining individual informational knowledge, skills, and understanding education should additionally focus on how people identify with others, learn to get along with others in social communities and cultures, learn to take action to influence how people use power, as well as how people can know what they do is right.

I am interested in how dramatic inquiry creates spaces where all these kinds of knowledge can be shaped and developed. To understand how knowledge is situated and created in discourse and accessed over time and across social and cultural spaces, I turn to discourse theory (Gee, 1996). To understand how knowledge is created in movement and presentation, I turn to performance theorists (Schechner, 2003). To understand how dramatic inquiry creates imagined spaces I turn to play and dramatic play theorists (Bruner, et al, 1976; Vygotsky, 1967; Dyson, 1997).

My extended view of knowledge, in turn, extends my view of pedagogy. I have a nested view of pedagogies. I regard direct instruction approaches as nested within scaffolding approaches designed to promote expertise that in turn are nested within socio-cultural approaches. In other words, I view meaningful social and cultural contexts as paramount for creating situations that will best engage pupils in learning and teaching. As part of socio-cultural pedagogy I incorporate critical inquiry (Freire, 1970; hooks, 2003; Lewison, Leland, & Harste, 2007) and

anti-oppressive (Kumashiro, 2007) teaching. My overarching theory of pedagogy is dialogic.

I rely on the theories of Bakhtin (1981, 1986) to conceptualize the heart of teaching as the creation of dialogic spaces for learning. I am especially interested in how dramatic inquiry can create spaces that are highly dialogic where perspectives that have been previously been ignored, diminished, or overlooked can be taken up. Dialogic pedagogy is not simply people engaged in dialogue or conversation but rather adult intervention to shift pupils' positions and viewpoints so that they can create more complex knowledge that involves rethinking and reconceptualizing previous understandings.

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