

RESEARCH

Tracing the Ephemeral: Mapping Young Children's Running Games

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Young children's play is highly multimodal, with gesture, gaze, movement and speech often combined simultaneously in collaborative meaning-making. This article argues for a multimodal social semiotic perspective on play, recognising that this requires representation of data that brings multimodal elements into careful consideration. In this article, multimodal transcription is used to examine a video recording of three and four-year-old children playing a chasing game in an English nursery school. Map-like transcripts, including an animated transcript, are used to document an instance of their play, drawing particular attention to placement in space over time. Whilst such moments of play may at first appear fleeting and chaotic, multimodal transcription reveals the communicative, creative and agentive capacities of young children in a multitude of forms. The transcripts highlight and make evident the ways in which roles and rules of play are carefully negotiated moment-by-moment in multiple modes. In this way, map-like multimodal transcripts are presented as devices to highlight meaning-making where it may not normally be looked for, seen or recognised.

Keywords: Multimodality; Video; Transcription; Play; Early Years Education

Introduction

Children engage with the world in many playful ways including drawing, model-making, dance, storytelling and role-play (Kress, 1997), as well as through silent negotiations and interactions (Flewitt, 2005). Young children's play is highly multimodal, with gesture, gaze, movement and speech often combined simultaneously in collaborative meaning-making. However, an educational climate of 'datafication' (Bradbury & Roberts-Holmes, 2018) focused on reaching prescribed developmental milestones means children's more subtle signs of learning may all too readily be dismissed, particularly when play does not centrally feature language (Bradbury, 2013; Flewitt & Cowan, 2019). This article focuses on an instance of child-initiated physical play, identifying it as an activity that is particularly overlooked in early childhood education. I argue for a multimodal social semiotic perspective on play, giving attention to ways in which modes such as gesture, gaze, movement and language are often combined.

Such a perspective requires methods of data collection and analysis that attend to play's multimodal qualities. This article offers the playground as a site for developing multimodal methodologies, particularly multimodal transcription. The article analyses a video-based observation of child-initiated running play collected through an

ethnographic case study carried out in a nursery school in England, asking: *How might multimodal social semiotic theory offer new ways of seeing and understanding child-initiated play, and how might video and multimodal transcription support such a perspective?* Map-like transcripts of children's running play are used as a means of accounting for multiple embodied, ephemeral modes in fine-grained detail. A prototype animated transcript is also included and discussed in terms of its potentials for representing dynamic aspects of play. Insights from the transcripts highlight the richness and complexity of child-initiated play, making visible ways in which play is layered, transformative, creative and agentive meaning-making. In this way, I argue that multimodal transcription not only 'visualises' play by making it visible and sharable, but also offers a new lens through which we might understand the semiotic complexity of play.

Play: A Multimodal Social Semiotic Perspective

Multimodality is now a widely used term, although its use varies both across and within academic disciplines and research traditions, including systemic functional linguistics (Bateman, 2011; O'Halloran, 2004; O'Toole, 2011; Unsworth, 2008), social semiotics (Hodge & Kress, 1988; Kress, 2010; Van Leeuwen, 2005), Conversational Analysis (Goodwin, 1981; Mondada, 2011), Geo-semiotics (Scollon & Wong Scollon, 2003), and Multimodal (Inter) actional analysis (Norris, 2004). Although terminology and emphases differ, key principles of multimodality are

that communication and representation are about more than language, always simultaneously combining multiple forms, each offering distinct potentials and limitations for making meaning (Jewitt, Bezemer, & O'Halloran, 2016). As such, multimodal perspectives recognise that in order to study meaning, all forms of representation and communication must be valued on equal footing.

This article adopts a social semiotic approach to multimodality (Kress, 2010). Social semiotic theory is concerned with the social dimensions of meaning, based on the foundation that meanings derive from social action and interaction using semiotic resources as tools (Jewitt et al., 2016). A social semiotic approach to multimodality seeks to identify and describe the modes available and how they are used in particular situations, where 'mode' can be defined as a socially organised set of resources for making meaning (Kress, 2010; Kress, 2014). A multimodal social semiotic approach gives particular consideration to 'modal affordance', recognising that different modes offer different potentials for making meaning (Kress, 2005). In this way, social semiotics is an apt approach for examining play, where multiple modes are used rapidly and readily in complex combinations.

This article focuses on an instance of children's running play, recognising it as an activity that is often overlooked in early childhood education. Children's running games are often limited to times and spaces outside of formal teaching and learning, particularly beyond early years education. 'Playtime' or 'break time' in primary schools and some early years settings, in which children play outdoors at designated times between indoor activities, have tended to separate much child-initiated physical play from learning, positioning it as a means through which children can 'let off steam' or 'burn off energy' in preparation for more sedentary classroom-based activities (Frost, 2010; Tovey, 2007). Much research of physical play reinforces a developmental perspective in which physicality is seen as a precursor for verbally-negotiated rule-based play. For instance, Blurton-Jones (1967) and Pellegrini (1989) describe a rough and tumble to rule-based play 'transition', with Jarvis suggesting that rough and tumble play acts as "the platform from which to build games with rules" (2010, p. 69) and subsequently the foundation for rule-making in later life. Such a perspective implies a Piagetian trajectory of development, seeming to suggest that physical modes give way to verbal modes in terms of more sophisticated negotiation.

The Opies' vivid accounts of children's playground games (e.g. Opie, 1993; Opie & Opie, 1959) and contemporary studies of children's playground play (Burn, 2011; Marsh & Bishop, 2014; Willett et al., 2013, Potter & Cowan, forthcoming) highlight the richness of children's play cultures and the social complexity of playground activities such as running games. However, physical play remains a somewhat neglected aspect of play research (Tannock, 2014) and tends to be viewed in early years education primarily in terms of evidencing physical and biological development rather than in relation to communication, social interaction and creativity (Cowan, 2018).

In contrast to developmental perspectives on play, a social semiotic perspective positions play as an activity that has transformative, agentive meaning-making at its very core (Kress, 1997). As with every act of sign-making, so in play the sign-maker engages in principled communicative choices, shaped both by their interest and by what is available at that particular moment, in order to make meaning in a particular social and interpersonal context. Furthermore, a *multimodal* social semiotic perspective highlights that play is always realised in a multiplicity of modes, which might include gaze, posture, manipulation of objects, facial expression and so on, as well as what is said (Kress, 2010). Each mode available in play offers particular affordances that shape meaning-making in distinct ways and with implications for how signs of learning are made apparent (Bezemer & Kress, 2016). From such a perspective, children use multiple modes in play not to compensate for emergent language, but because they intend to convey the richest meanings possible with the means available (Kress, 1997; Wohlwend, 2017).

Whilst a multimodal social semiotic perspective offers a new way of seeing and making sense of play, apt methodologies are required in order to attend to meaning-making in its many forms. The dynamic, ephemeral qualities of children's running play place particular demands on the researcher in terms of observing, recording and transcribing play, raising questions about what might be represented in research and how. In the methodology section that follows, particular attention is given to the process of multimodal transcription as part of such an approach.

Methodology: Observing and Transcribing Running Play

The study took place in one nursery class of an Early Years Centre in England, attended by 20 children aged three to four. It addressed two interconnected research questions, namely how multimodal social semiotic theory might offer new ways of seeing and understanding child-initiated play, and how video and multimodal transcription might support such a perspective. The study was reviewed and approved by the university's research ethics committee and particular consideration was given to the use of video, informed by guidelines regarding visual ethics (Wiles et al., 2008) and children's research rights (Flewitt, 2005). Pseudonyms are used for the children throughout.

Video-based observations of child-initiated play were collected through an ethnographic, teacher-research case study approach. Over two weeks, video recordings were made of a range of different play episodes including computer play, construction play, role play and running play (see Cowan, 2018). These were analysed multimodally, with transcription positioned as a central element of multimodal analysis rather than an intermediary or preparatory stage.

Transcription of video presents numerous challenges and is increasingly an area of experimentation in social research. Transcription conventions developed for speech (e.g. Du Bois, 1991; McWhinney, 2000; Jefferson, 2004) prove problematic for representing the dynamic,

multimodal qualities of video, leading researchers to argue that existing transcription methods and means are no longer fit for purpose (Bezemer & Mavers, 2011; Flewitt, Hampel, Hauck, & Lancaster, 2014). Just as the technology of the tape recorder supported developments in transcription to represent the new linguistic data available, so it becomes necessary to continue the discussion of transcription in light of the technology of the video camera and researchers are increasingly developing transcripts that attend to multimodal qualities of video-recorded interaction (e.g. Norris, 2002; Baldry & Thibault, 2005; Cowan, 2014; Cowan & Kress, 2017).

Transcription is always a partial process, shaped by and shaping theory (Ochs, 1979). In transcription of audio material this has typically involved representing speech as writing, whilst multimodal transcription of video material raises new issues for what gets represented and to what effect (Bezemer & Mavers, 2011; Flewitt et al., 2014). From a multimodal social semiotic perspective, transcription can be seen as a process of transduction (Kress, 2010), inevitably involving re-making of meaning across modes. This calls for careful consideration of transcript design, acknowledging that transcription choices entail inevitable gains and losses, and making such choices principled and explicit (Cowan, 2014, 2018).

Multimodal Transcription of Running Play

A collection of video clips of children engaging in running play was selected from the dataset for fine-grained analysis. The video recordings were viewed multiple times and a descriptive vignette was written, attempting to provide an overview of the unfolding play but encountering particular difficulty in clearly and concisely describing qualities of movement. In an attempt to focus on multimodal qualities of the play, the video was annotated using the software *ELAN*, with tiers on a timeline to note the children's running movement, gesture, gaze, facial expressions and vocalisations. Transcribing the play in this way was a challenge, particularly trying to find linguistic terms that described precisely the various features of the children's movement, including distance, direction and speed. Whilst the *ELAN* timeline transcript supported close attention to the play episode in question, and the vignette offers a summary of the overall scene, they are both limited in their scope for examining and representing children's placement in space.

To address this challenge, I experimented with mapping the children's movements. I began by creating a simplified birds-eye plan of the outdoor play space (see **Figure 1**) and used this as a base for mapping movement on top. This mapping was created through re-viewing the video in *ELAN* at slow speed, supporting sketching of the children's approximate pathways around the space during a short section of their play (see **Figures 2–4**). Different colours were used for the different participants and arrows were added to show directionality. I used the spacing of the arrows to denote the children's positioning at one-second intervals, thereby depicting speed as well as position and direction of movement. As stillness

was of as much significance as action, pauses were also incorporated into the transcript design using a circle with a number denoting the duration in time (in seconds) that the children were still. Their talk was incorporated by locating this at the relevant point along their movement 'path', using the convention of speech bubbles in different colours, showing who was speaking and when. The transcript makes particular use of visual modes such as colour, shape, layout and image to represent the detail and complexity of the children's running play, whilst attempting to remain clear and coherent to the reader.

Whilst the map transcripts offer possibilities for representing the direction and speed of the children's running play around their play space, it inevitably has certain limitations. Due to the clarity that is lost when paths map on top of each other, this design is best suited to transcribing short sections of video. An approach that may help this clarity, as used in this article, is to show the mapped transcript broken down into shorter sections to examine particular stages in an interaction and to discuss the episode unfolding.

Animated Transcription

A further shortcoming of the map transcript design is the difficulty of representing sequentiality. Time is represented in terms of the children's speed, but it is more difficult to decipher, for instance, who is chasing whom and the distance between the children at certain points as time unfolds. During preparation of this article, the *Designs for Learning* journal suggested creating and including an animated digital transcript in order to explore and address this issue. A prototype animated transcript (see **Video**) was developed by editor Anna Åkerfeldt. Using Adobe, the map-like transcript is brought to life, showing the movement of the children over time around the birds-eye view of the play space. Animation is particularly useful for representing qualities of the play that are challenging to depict in static map-type transcripts, such as the distance between the children at different points in time and the sequential unfolding of the chase. In this way, an animated transcript might more vividly represent the dynamic qualities of social activity such as play.

If it is possible to include moving image in a research journal, one might ask why not include the 'raw' video clips rather than an animated transcript. This question highlights the status of transcription, which through *selection* and *representation* of original material offers both analytical and rhetorical insights (Bezemer and Mavers, 2011). Animated transcripts are able to direct readers (or, perhaps more appropriately, viewers) of the research to focus on features distilled and given prominence by the researcher. In this way, animated transcripts, like all transcripts, can serve a particular rhetorical function in the research process, potentially making multimodal aspects of interaction particularly salient in research outputs. Furthermore, as an abstracted representation, it preserves participants' anonymity in a way that including original video clips would not.

Findings

To examine play from a multimodal social semiotic perspective, this section presents fine-grained analysis of a short instance of running play in the outdoor area of a nursery setting. First, the nursery setting itself is briefly introduced. The context for the episode is then outlined, followed by a descriptive vignette recounting the play. Map-like transcripts are then used to highlight key insights into the multimodal complexity of children's running play.

Play in the Nursery Setting

The nursery's large outdoor play area was used simultaneously by several groups of children attending the centre, meaning up to 50 children aged two to four could be playing in this space at one time. For the children in the nursery class, this space was accessible as part of free-flow provision for the majority of the session, with direct access from the classroom into the outdoor area in all seasons and all weathers.

The case study in this article focuses on the running games of a group of three- and four-year-old boys from the nursery. This instance of physical play took place on the grass-covered area of the outdoor play space, stretching from the tarmac-covered section to the fence at the perimeter (see **Figure 1**). Compared to the tarmac-covered area, which was divided by willow fencing and flowerbeds, the grassed area offered a comparatively wider open space and greater room for large-scale movement. This area was often used for adult-led activities that required a lot

of space, such as circle rhymes and parachute games, and was where children tended to engage in their self-initiated large-scale play such as ball games and chasing games. Practitioners would often specifically direct children to play highly physical games like chase on the grass rather than the tarmac, fearing that the hard surface would injure the children if they fell. Although in practice this was a rule that the children tended to forget or ignore, running on both the grass and the tarmac, it demonstrates some of the challenges running games raised for practitioners regarding safety, indicating a connection made between large-scale physical play and danger.

During data collection, it was noted that few observations of running play were featured in the children's ongoing assessment portfolios, suggesting that in addition to concerns for safety, running play presented challenges in terms of observing and documenting learning. Dismissal of children's loud, fast-paced activity as problematic or dangerous, and its absence in assessment documentation, suggests that running play was not often thought to support or demonstrate children's learning, particularly beyond the remit of evidencing physical development, and was valued less than other quieter, more sedate forms of play.

A further issue affecting teachers' documentation of highly physical play concerned the practical difficulties of observing and recording running, a challenge that was also experienced as a researcher. The children would run fast and far, often making it difficult to keep up with them, to see and hear them, and to record what was happening.

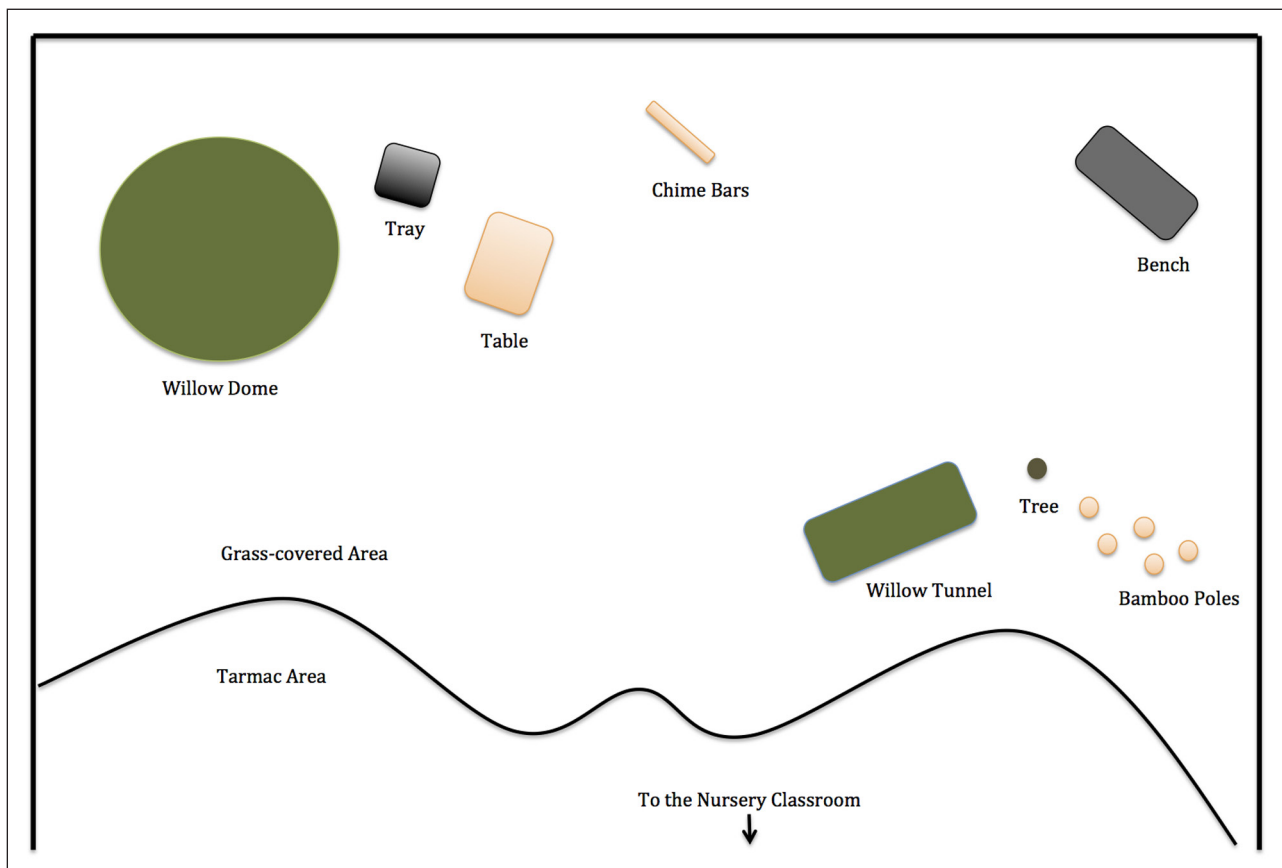


Figure 1: A birds-eye plan of the nursery's outdoor play space.

In data collection, positioning the video camera tended to involve a choice between recording close-up and losing much of the large-scale movement around the space, or recording at a distance and inevitably losing detail. With multiple participants running unpredictably in different directions across a large area, decisions about camera focus and positioning often had to be made quickly and in the moment, deciding whether to track one particular child or pan across the space. These choices inevitably led to gains and losses, highlighting the partiality of all video recording whilst capturing crucial aspects of play that other methods, such as field notes and photographs, could not (see also Heath, Hindmarsh, & Luff, 2010; Jewitt, 2012).

As well as posing challenges for practitioners and researchers, running games sometimes seemed to be a source of conflict and tension amongst the children themselves. During the fieldwork I witnessed children who were upset about being chased, or annoyed that other children were not joining in their game. This was complicated by the fact that running away from a 'chaser' when not wanting to play could easily be interpreted as participation in a chasing game. The disputes arising in running games further established it as a somewhat challenging play activity that was not usually given the same attention, by both practitioners and researchers, as play which was more verbal, less physical and on a smaller, quieter scale. For these reasons, it was a particularly interesting form of play to approach from a multimodal social semiotic perspective, taking play of this kind to be a serious form of embodied meaning-making.

An Instance of Running Play in the Nursery

The play episode featured in this article unfolded during one sunny afternoon when most of the children had chosen to play outside. The children I observed were playing a version of the well-known playground game variously known as 'tig', 'tag' or 'catch-chase' (Opie & Opie, 1959), a running game involving chasing and catching another person. In a typical version of this game, one person becomes 'it' and has to try and catch another player by tapping them, making them the new 'it'. In this play episode, the children mainly kept their play to the grassed area, running through and around the fixed features such as the willow dome and the bench. Since so many children had chosen to play outside on this day, the outside area was particularly busy, creating challenges for negotiation of a large-scale group game.

The children involved in the running game were good friends from the same nursery class. The video recording, and the play itself, was somewhat stop-start, as disputes arose which led to the play stopping and decisions to switch off the camera out of respect for the children and ongoing negotiation of provisional consent (Flewitt, 2005). A collection of clips provided rich insights into the large-scale, outdoor, movement-based play of the group of children throughout over approximately one hour of the nursery session. An overview of the play episode is presented first as a vignette, before a shorter section of the recording is analysed in close detail supported by multimodal transcription.

Running Play: Vignette

George, Billy and Tom play a version of a chase-and-catch game which involves fast paced running across the grass, weaving through and around the features of the outdoor area. Initially, Billy and George both seem to be chasing Tom, running through the willow dome as George runs around it, so that both boys close in on Tom on the opposite side. Tom rolls onto the ground as George and Billy tap him on his torso. Billy shouts, "Got you!" and then yells, "Run!" as Tom gets back up on to his feet, with both Billy and George simultaneously turning and running away across the grass. The chase then seems to switch from Billy and George chasing Tom, to Tom chasing Billy and George.

The chase momentarily stops as Billy notices me filming. He stands still, calls my name and waves towards me. Stretching his coat wide behind him, he says, "I'm Batman, Kate!" With his coat still spread out, Billy bends forward, stretching his arms over his head, until he touches the floor. Tom seems not to have noticed that Billy has stopped playing, or sees his distraction as a chance to easily catch him, and taps Billy with some force while he is bent over, his vision blocked by his coat. Tom keeps running, now pursuing George. They run through the willow tunnel and in loops around the grass. Tom calls, "George!" repeatedly as he runs after him, but George shows no signs of slowing or stopping. George shouts behind him, "You gotta catch me if you want to say something". As they chase, Billy calls my name several times, telling me, "Tom just hurt me". As Billy seems somewhat upset, I switch off the camera.

I continue recording moments later when the play has resumed between the same three boys and the dispute seems to have been forgotten. Tom runs through the willow tunnel, the two boys watching until he emerges from the other end of the tunnel, with Billy calling, "There he is!" Tom runs in a loop around the willow dome, with George choosing to run around it in the opposite direction. Running towards each other, and seemingly unsure about who is chasing whom, both Tom and George come together with outstretched arms, laughing. Tom exclaims, "Got you!" but George disagrees, "No, you got me, I got you."

Seeming to attempt to re-establish roles, George taps Tom, shouting, "You're it!". Billy repeats George's suggestion to Tom, "You're it. You are it", but Tom seems reluctant to chase. Both Billy and Tom walk slowly across the grass towards George, who watches them steadily as they approach. George waits still by the fence until they are about a metre away, then darts off quickly running towards the willow dome. This seems to prompt Billy and Tom back into a chase, with both boys turning and running after George.

The following section of the play is chosen for detailed multimodal analysis in the section below. Tom has left to go and play with another group of children. Billy stands beside the bench, watching George run past him towards the willow tunnel, then back across the grass to the willow dome on the far side. George stops briefly

then runs back past Billy again before stopping at the other side of the bench. Facing each other with the bench between them, George says emphatically, “You gotta get me”, which prompts Billy to run at George. Running away, George calls, “Yay!” as Billy chases him in a loop around the bench. As they chase, Joey and Tom dash past and position themselves behind the bench, with Billy glancing towards them as he runs. Looping back in front of the bench, George then slows his running to a walking pace, stretching out his right arm towards Billy and walking in a small circle. Billy also slows his pace and follows George’s change in direction. George lifts his hand to his neck and walks towards the willow tunnel, where both boys stop. Facing each other, Billy says, “Your turn”. With his hand still on his throat, George says, “I’m just going inside for a little drink”. Billy replies, “Me too”, and both boys walk together across the play area to their classroom.

Discussion: Visualising the Multimodal Complexity of a Running Game

At first sight, running play of this kind might appear somewhat chaotic. The pace is energetic and fast, the volume is loud, and the rules the children apply to their game may seem inconsistent and fleeting. Children easily come and go from the game, sometimes playing as a large group and sometimes only as a pair. The written vignette struggles to capture fully the noisy, bustling energy of the outdoor play area and the children’s rapid, changing movements, their many gaze shifts and their complex use of the space.

However, when video is used to look closely at how the children are communicating in play of this kind, and when transcripts are used to examine its multimodal nature in detail, greater attention can be given to the complexity of meaning-making in multiple modes, including those which are dynamic and may be particularly challenging to capture and interpret.

Figure 2 represents 55 seconds of the children’s running play, during which time George and Billy establish a chase and then end it. Shorter sections of the transcribed extract are presented throughout this article to support clarity and enable close consideration of the play as it unfolds (see **Figures 3** and **4**). The transcripts show a birds-eye view of the grass area with coloured lines depicting the movement of each child (with colours corresponding to the colour of their t-shirts – George: red, Billy: green, Tom: grey, Joey: yellow). The arrows along the lines are positioned at approximate one-second intervals to show when the children were moving slowly (the arrows being closer together) or at speed (the arrows being further apart). A number of insights were supported by this transcription and its foregrounding of the children’s placement in space. What follows is a discussion of insights that arose through multimodal transcription, firstly examining an invitation to chase and secondly the closing down of the game.

Creating Roles and Rules in Action

The resources the children drew upon most centrally in their running play were embodied modes, such as gesture, gaze and qualities of movement such as speed and direction, rather than physical artefacts such as toys. On

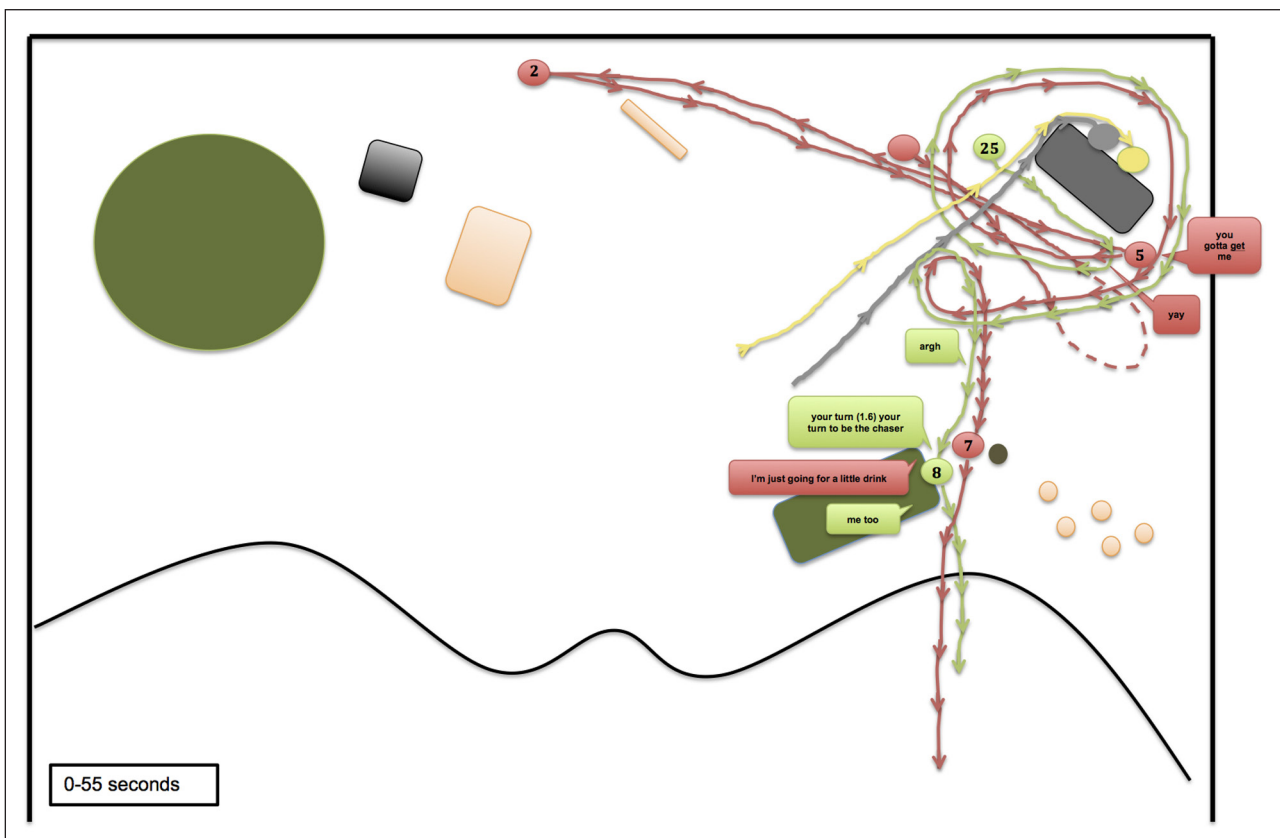


Figure 2: Mapping children’s running play: 0–55 seconds.

the grass-covered section of the outdoor area where this play took place there were a number of fixed features which seemed to become resources of the play in relation to the children's movement – for instance, as structures to be encircled (the willow dome), passageways to run through (the willow tunnel) and places to hide behind (the bench). A further resource Billy makes use of in this episode of play is his clothing, stretching his coat wide as he tells me, "I'm Batman!", presumably to signify a cape or wings. In this way, although it may at first glance look as though the children were playing without resources in the traditional, material sense, a social semiotic perspective prompts us to consider what else is 'to hand' for children's meaning-making in all forms. This includes the features of the space, the children's embodied modes and material resources that are less frequently considered as significant, such as clothes, accrediting children as being creative and agentive in how they make meaning with these in combination.

The game took place in a large, busy, open part of the outdoor area. With the children often at some distance from one another, and with background noise from the wind, traffic and other children, speech was typically not the most apt form of communication between players. The space and the social context for communication in this kind of play meant that movement and qualities of movement, such as direction, speed and distance, became particularly central not only to the game's chasing and catching, but also in negotiation of the rules of the play.

Figure 3 focuses on the first 25 seconds of this play episode. During this time, Billy stands still beside the bench (stillness shown by a circle with the duration of pause,

in seconds) as he watches George run across the grass. George first runs past Billy towards the fence beyond the bench (the dotted line depicting him momentarily running out of camera shot) before running back past Billy towards the willow dome, glancing at Billy as he runs past. There, George turns around on the spot and briefly pauses, running back past Billy once more before stopping on the other side of the bench. As George runs, Billy remains still, following George with his gaze and a slight turn of his body.

The transcript shows that George's running re-traces the same route back and forth in front of Billy. This involved passing Billy at close proximity on three occasions, effectively offering Billy three easy opportunities to move only a short distance to catch him. George's running in this phase of the play seems to be an invitation, formed in repeated back-and-forth running paths and close proximity to Billy, communicating a message somewhat like 'Come and get me' or 'Catch me if you can'. As he runs, George looks at Billy, with Billy returning that gaze as he tracks George's movement, with the gaze exchange seeming to reinforce the sense of invitation. In addition to communicating an invitation to play, George simultaneously establishes their roles in the game, conveying his own role as the running escapee and encouraging Billy to enter into the catching role of the chaser. If George had wanted to avoid being caught by Billy altogether, he could have hidden or kept a much greater distance between them, but this runs the risk that Billy might think he was leaving the play or feel that the task of catching George was too difficult. If George's main objective was to be caught, he could have stayed stationary near to Billy to enable an easy catch,

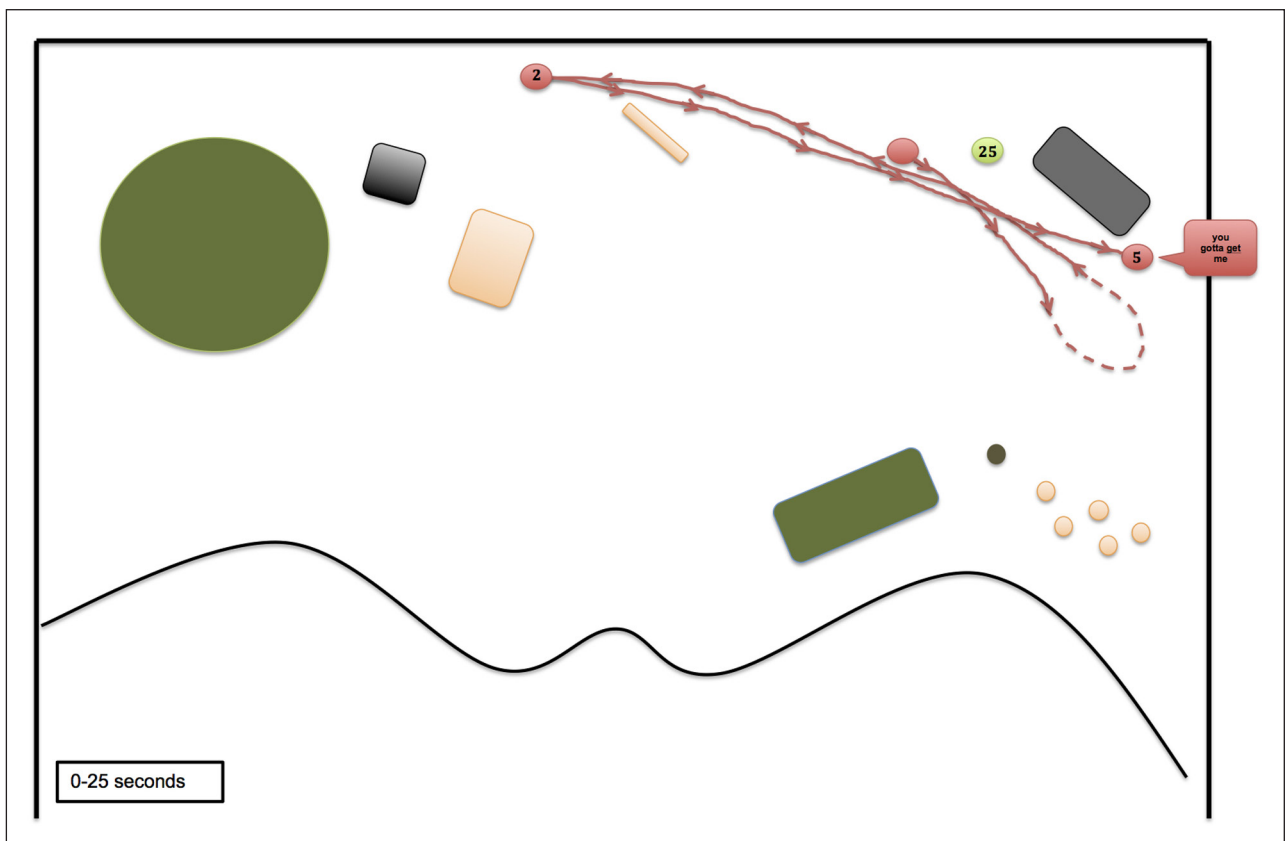


Figure 3: Mapping children's running play: 0–25 seconds.

but this would undermine the premise of a game of chase. His running at close proximity strikes a balance between making the catch achievable for Billy and communicating the rules and principles of a game that hinged on chasing and escaping, making the game challenging and exciting. What may first appear as merely running, when considered in this way, can be seen as a layering of complex communicational messages, establishing roles ('You are the chaser, I am the escaper') and rules ('You should try and catch me, but I'm going to try not to get caught').

In the transcribed episode, Billy does not immediately take up George's invitation to try and catch him, remaining still as he watches George run past. After his third run past, George stops at the other side of the bench, facing Billy, and says emphatically what he seems to have been attempting to convey in his movements – "You gotta get me". This authoritative instruction, particularly the directive "you gotta" and emphatic "get", serves to clearly emphasise his suggested role for Billy. Whatever the reason for Billy's initial reluctance to chase (perhaps tiredness, being unsure about what role he was being expected to take on, preference for being the escapee, or more of an interest in playing as Batman), George's verbal instruction is successful in getting Billy to chase him.

In this instance, talking through their roles required coming to a standstill, disrupting the running element so central to the game, and being at dangerously close proximity to one another within a chase. It seems that embodied modes were the first choice for constructing a message within the play itself, and that stopping to discuss their roles was something of an amplification

or clarification when the invitation was not taken up. Similar movement patterns were used to initiate a chase on several occasions in the longer episode of running play between the group of boys. When there seemed to have been confusion surrounding roles, or the play had slowed to a standstill, it was often regenerated by one of the children suddenly darting off in another direction, or a player remaining still until the chasers were close, then moving abruptly away. Such embodied 'invitations', including the episode transcribed in this article, seemed to play upon a contrast between stillness, action and quick changes in direction, generating a sudden shock or surprise that often enticed the children into a chase. In this way, the transcripts highlight that rules and roles within the play were negotiated through complex multimodal orchestrations where language was not used as the sole or primary carrier of meaning.

Multimodal communication of the message 'truce'

Figure 4 shows the second section of this extract, in which the boys chase around the bench before stopping their play. George makes his spoken command, "You gotta get me" while standing on the opposite side of the bench to Billy. Whilst the children verbally negotiate the chase, their careful positioning demonstrates the ongoing significance of their embodied placement in space. The bench acts as something of a base, where Billy stations himself, and also as a barrier between the boys, establishing a safe distance which is close enough to easily talk and be heard, but far enough apart that they do not risk getting caught too easily if a chase does begin. The bench continues to act

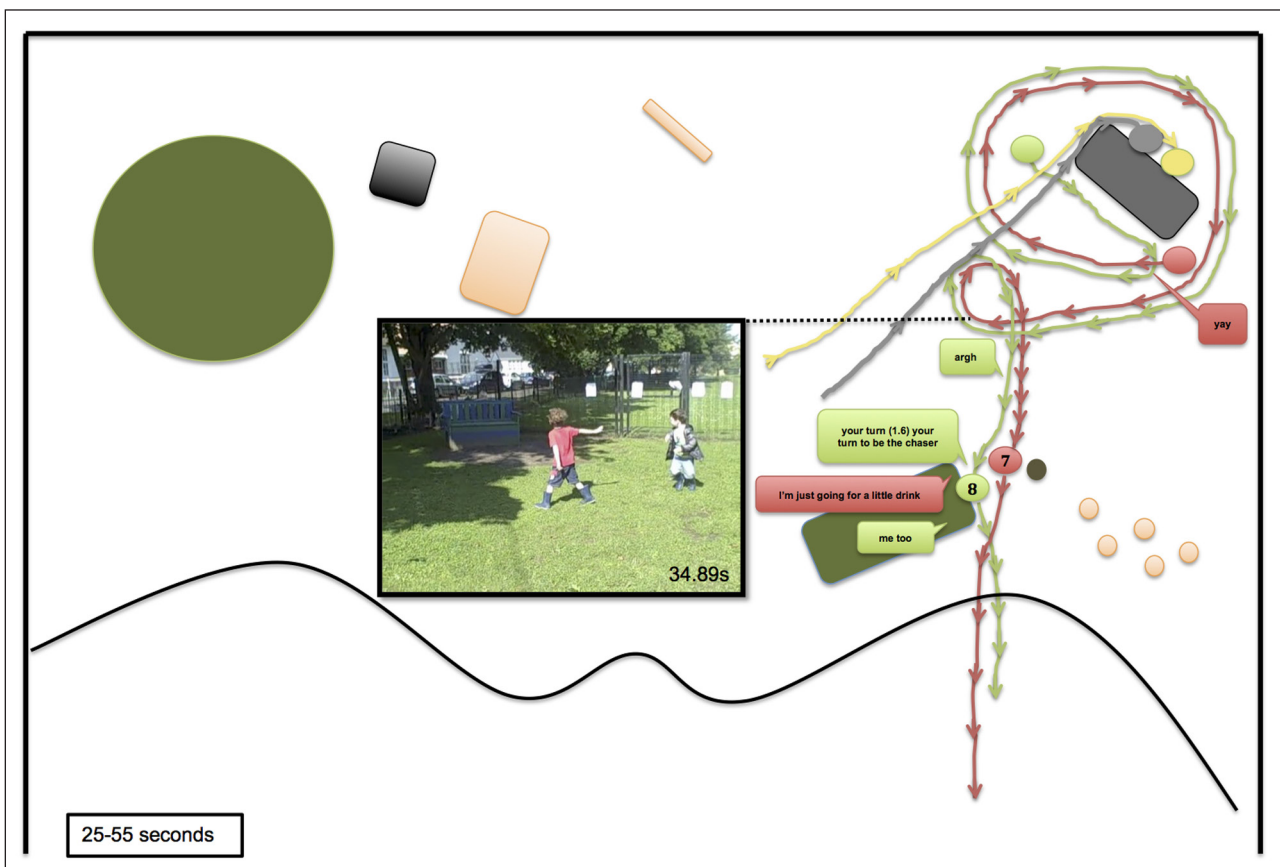


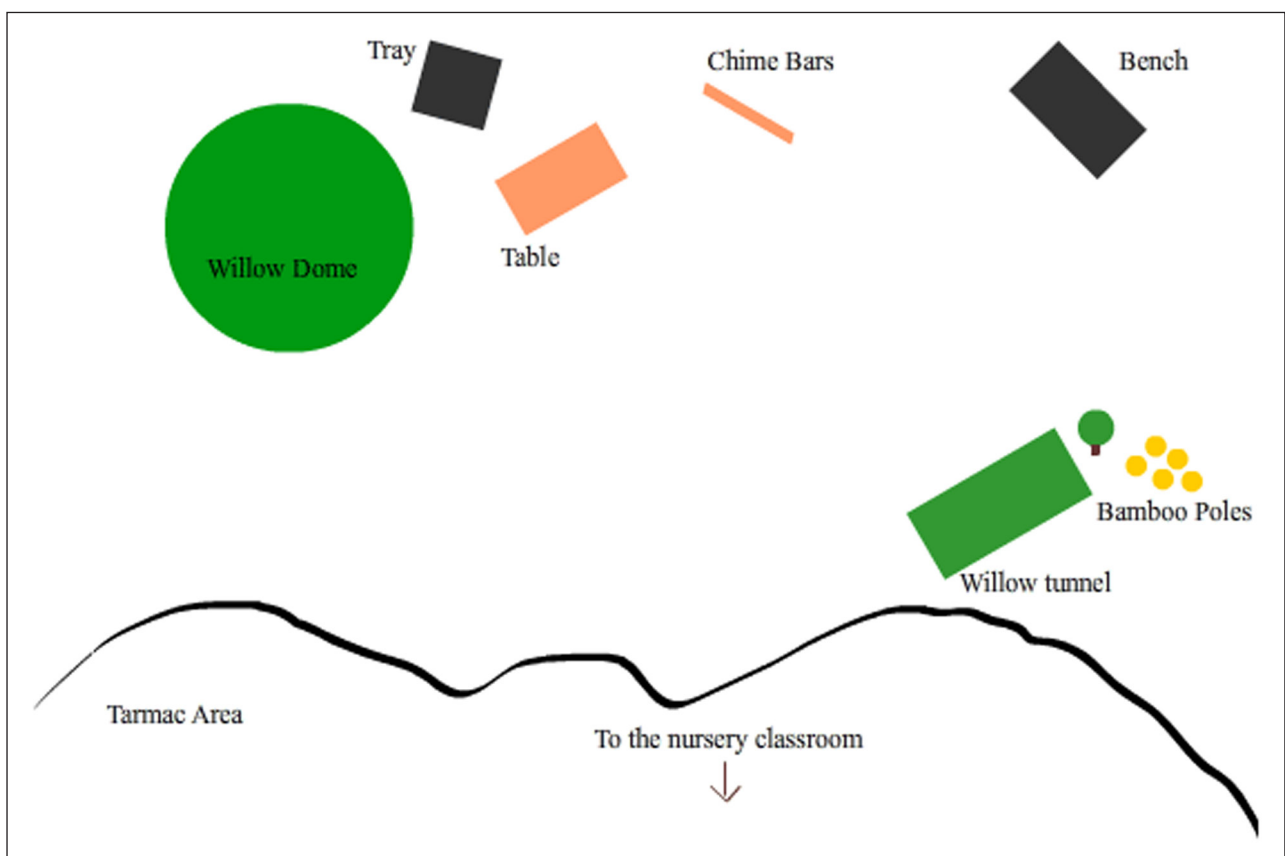
Figure 4: Mapping children's running play: 25–55 seconds.

as an obstacle of sorts as the chase unfolds, with George running in a clockwise loop around it, pursued by Billy. Indicating his satisfaction with the chase that then begins, George says through breathless laughter, “Yay!” as he runs away. Billy follows the same path made by George in his running, matching his increased speed close behind. As they chase, Joey and Tom run towards and behind the bench, seemingly playing their own running game involving hiding. As they enter the space being used for the chase, both Billy and George briefly acknowledge Joey and Tom’s presence with a glance in their direction.

Having encircled the bench pursued by Billy, George runs in a small clockwise loop, somewhat mirroring the larger loop previously made around the bench. As he makes this tight circular change in direction, he stretches out his right arm towards Billy who follows the same looping pathway (see video still within **Figure 4**). George’s pace slows, and he keeps his arm outstretched as he paces round in this circular direction before steadily walking towards the willow tunnel. Billy follows him, matching George’s movement and slower pace. Standing face-to-face at the willow tunnel, Billy suggests, “Your turn... Your turn to be the chaser”, implying that he thinks they have come together to assign roles as before. However, with his hand on his throat George explains, “I’m just going for a little drink”. Billy says, “Me too”, and accompanies George going into the classroom for some water. **Video** presents a prototype animated transcript of this episode, highlighting the sequentiality of children’s movement through space over time.

It seems curious that after George’s persistent efforts to get Billy to chase him, he then closes down the game after such a short chase. It appears possible that Joey and Tom, although friends, were seen as a disruption to the game, perhaps because of their presence close to the bench ‘base’ they had been using, or because it was feared they were running towards them to catch them. It may be that, as George says, he realised he was thirsty and tired from running and simply wanted a drink and a rest. Whatever the reason for stopping, the map-like transcript enables consideration of the way in which the play is efficiently stopped by George following their chase. Before a reason for stopping is articulated verbally, this ‘closing down’ is accomplished through George’s subtle combination of movements, including decreasing his speed, changing direction and keeping Billy at a distance through an outstretched arm gesture. Billy mirrors these qualities in his own movement, following George’s circular direction and slowing down, and does not attempt to ‘catch’ George even though this would have been possible at slower speed and closer proximity. Therefore the play is successfully ‘wound up’ by George before they discuss the reason for stopping, which ensures George avoids being caught and avoids surrendering.

In this way, the chase is paused and suspended, subtly communicating the message ‘truce’ through multiple embodied modes and the children’s use of the space. From their studies of playgrounds, Opie and Opie note the important function of truce terms in physical play:



Video: The animated transcript is a prototype to represent children’s speed, who is chasing whom and the distance between the children at certain points as time unfolds. DOI: 10.17045/sthlmuni.13247696.

If, when engaged in some boisterous activity with his fellows, a child is exhausted or out of breath, or cuts himself, or has a shoelace undone, or fears his clothes are getting torn, or wants to know if it is time to go home, he makes a sign with his hands, and calls out a word which brings him immediate but temporary relief from the strife (1959, p. 142).

Opie and Opie propose that although such a term has no easy equivalent in adult speech, it is “perhaps the most important word in the schoolchild’s vocabulary” (1959, p. 141), enabling temporary respite from a game without necessarily surrendering. Opie and Opie document a wide range of such truce terms throughout the United Kingdom (including ‘barley’, ‘exes’, ‘keys’ and ‘skinch’, depending on regional variations) and note that the word is often combined with a gesture such as crossed fingers. The analysis of this play episode suggests that in his outstretched arm and circular movement, George designs his own sign for ‘truce’, achieving the same function as a verbal truce term. Whilst standardised words and gestures were not used, the same message is efficiently conveyed, shaped by the particular context of the play and the experiences of the players. In this way, detailed attention to physical play as a social and communicative multimodal act identifies how sophisticated and vital aspects of the play, such as ‘truce’, are negotiated in subtle multimodal ways that may be easily overlooked. The transcript gives clarity to an episode of play that may at first appear fast-paced and chaotic, and shows that the children have subtle and sensitive awareness of each other’s multimodal communication. Language is most certainly partial, particularly in play of this kind which is so highly physical and conducted in a noisy, busy, dynamic space where speech is not often a particularly efficient means of communicating with several players at a distance.

Valuing Child-initiated Physical Play

A multimodal social semiotic perspective on running play, supported by multimodal transcription, draws attention to the social and communicative dimensions of this highly physical activity. Whilst some studies of ‘rough and tumble’ play acknowledge the complexity and subtlety necessary to establish the message ‘This is play’ (Bateson, 1956; Freeman & Brown, 2004; Reed & Brown, 2000), much research reinforces a developmental perspective in which physicality is seen as a precursor for verbally-negotiated rule-based play. Seeing physical play merely as preparation for later learning fails to recognise its complexity in its own right. A developmental perspective on physical play downplays the possibility of embodied modes being central to the negotiation of rules, and the continuing significance of embodied modes in combination with language and other modes. Such a perspective risks glossing complex multimodal communication as ‘non-verbal’ or dismissing it as ‘pre-verbal’, failing to recognise the ways in which multiple modes continue to be central to negotiation and communication in play.

A developmental perspective on physical play features strongly within the Early Years Foundation Stage curriculum and guidance (Department for Education, 2017;

Standards and Testing Agency, 2016), highlighting a typical progression of physical skills increasing in difficulty and complexity. An emphasis on running games as evidence of physical development risks overlooking the importance of physical play in early years education as a means through which children make and communicate meanings. The multimodal social semiotic analysis outlined in this article challenges such a stance, suggesting that close and detailed attention to the multimodal resources children use to negotiate a chasing game reveals subtle but complex and sophisticated multimodal meaning-making.

In the episode featured in this article, the chasing play takes place in a large and busy shared outdoor area, meaning that other children regularly moved into and out of the space used for the game (for instance, Joey and Tom running behind the bench in **Figure 4**). As outlined in the vignette, children also came and went from participation in the game itself, with sometimes as few as two children playing but at other times up to five children involved. Whilst the children are playing a version of the chasing game ‘tig’, the rules and roles of their game are not entirely typical or regular. There are moments, for instance, when two children take on the chaser role and attempt to catch one person together, and occasions where children both seem to be trying to catch each other. There are also moments where the children elect themselves to be ‘it’ mid-game and when the children switch whose turn it is to chase before anyone has been caught. In this way, it seems that the rules of the game are not fixed or standardised, but are shaped between the children as the game unfolds.

Given the openness of the space, the presence of many children and the changing number of children participating in the play, on-going negotiation of rules and roles seems a necessity. As children join, leave and play different games alongside them, the rules of the game require flexible adaptation and reinvention in on-going agreement between the players. It therefore seems inaccurate to see this play as an undeveloped precursor to standardised rule-based play, or as random or idiosyncratic. Rather than positioning the children’s play as being in deficit, as not yet being developmentally ready or able to follow the ‘proper’ rules of a game, multimodal analysis highlights how play becomes shaped in a flexible, provisional way in response to the context. Such a perspective shows how the children’s play involved careful decisions and subtle multimodal signals to create a game that invented, communicated and negotiated its rules moment by moment.

The analysis in this article reiterates Burn’s observation that whilst children are adept at finding material resources for their play, “one of their most important and abiding resources is their own body” (2011, p. 22). This perspective supports recognition of the embodied modes children draw upon so readily in all play, particularly in highly physical play such as chasing games, and how they are used to make meaning. It supports what Hackett suggests is a growing understanding “of the whole body as a resource for both discovery and communication” (2014, p. 22). In this playground space, and in highly active play of this kind, it seemed that negotiating through talk was somewhat disruptive to the play itself, requiring a

coming-together at a distance conducive to speaking and being heard in a loud and busy environment. For the most part, the children instead used qualities *of* their movement to communicate the rules *about* their movement-based play. Invitations to chase, assignation of roles and the message 'truce' were communicated through multimodal means. A multimodal social semiotic perspective gives value to children's running games as sophisticated embodied meaning-making, skillfully and responsively designed and re-designed in action.

Seeing running games as dynamic multimodal meaning-making challenges some common conceptions of running play in the early years. Highly physical play is often viewed as problematic by adults and so discouraged (Freeman & Brown, 2004; Tannock, 2014). Reflecting upon the relative absence of running play observations in the children's learning journeys, it seems that the challenges presented by physical play may mean it is less likely to be considered meaningful than other play activities (see also Flewitt & Cowan, 2019; Cowan & Flewitt, 2020), and more likely to be considered narrowly in terms of physical development. The kind of play outlined in this article, with participants and rules continually changing in a noisy, fast-paced way, therefore risks being disregarded or interpreted as unproductive and lacking in focus.

'Focus' is a challenging notion, often seen as a desirable trait to promote in early childhood education in preparation for later learning (Department for Education, 2017). Multimodal analysis of this play episode suggests that the children *were* highly focused, giving careful and committed attention to the play signals of one another and continually responding to the changing social context. In her study of children's movement in a museum, Hackett states that "walking and running must not be dismissed as the 'noise' that happens in between focused engagement and learning in a museum (or any other environment), but as a central aspect" (2014, p. 20). Such a perspective also suggests that despite not having a tangible end 'product', physical play should not be dismissed as unproductive. Whilst it may not involve use of material resources that can be easily 'captured' as lasting products of the play (see Bradbury, 2013), running play can be considered as dynamic multimodal meaning-making, unfolding in time and space. Admittedly, such play is perhaps harder to capture, requiring sensitivity and consideration of new tools for documentation, but nonetheless worthy of careful attention and recognition.

A consequence of this study is the need to ensure that embodied modes are not dismissed or overlooked in favour of others. This article has argued that multimodal methodologies, including devices such as map-like multimodal transcripts, can draw attention to qualities of play that are hard to capture in traditional written forms. As journals move away from bound paper volumes and are increasingly viewed on screens, incorporating animated transcripts becomes increasingly possible. However, the traditions of static, print-based research outputs continue to strongly shape conventions and hold significant influence over what a journal is likely to encourage or accept. As journals broaden the forms of accepted submissions (e.g. visual essays, animations, sound), questions must

continue to ask what rigour, argumentation and 'scientific knowledge' look like in these changing forms, and the epistemological status of animated transcripts in research outputs must be considered amidst such discussions.

A further potential direction for the transcription of movement is the incorporation of data from global positioning systems (GPS) or wearable sensors to support automatic generation of map-like routes taken by participants wearing or carrying devices (e.g. Heravi et al., 2018). Similarly, the development of devices for recording video such as wearable Go-Pro cameras, motion capture and drone recordings present new perspectives on children's play (see Potter and Cowan, forthcoming). Whether generated through tracking systems or manually through reviewing video of various kinds, maps can be an insightful form of transcription for representing and examining children's movement in space over time. The act of map design and creation can draw particular attention to patterns in movement that might not at first be apparent in real-time, eye-level observation, offering a valuable means of incorporating qualities such as direction, speed and distance, enabling close consideration of an often-overlooked form of children's play.

Conclusion

In the preface to her descriptive accounts of children's games, Opie reflects that "at first the playground seemed uncontrolled confusion", and only gradually did she come to understand the activity as many different games played simultaneously in intersecting and intermingled ways (1993, p. 2). How to capture and interpret such fast-paced, fleeting and dynamic action presents a particular challenge to both researchers and practitioners, potentially creating a barrier to whether physical play is recognised and valued. Video offers a tool for recording multimodal aspects of such play and enabling multiple re-viewings to support interpretation, but a further challenge is encountered in re-representation of such video recordings.

Written accounts, such as vignettes, can be evocative but rely on a typologically and temporally organised description that may struggle to represent changing placement in space over time. The addition of photographs or video stills, even when presented as a series, may fragment the players' movement and may struggle to represent the wider context of the play. Incorporating mapping into transcription of running games enables emphasis on children's movement through space over time. Map-like design, and the act of mapping itself, can support scrutiny of movement and use of space as a crucial aspect of multimodal meaning-making in play. Animation further enables such insights to be made visible and shareable in new ways.

To dismiss running play as unfocused or unproductive, or to see it primarily in terms of physical developmental milestones and a precursor to later play, fails to recognise children's skillful use of multiple modes to negotiate complex social interactions, to respond to changing social circumstances and to establish and agree rules of play. A shift towards a multimodal social semiotic perspective on running play, supported by map-like multimodal transcript design, reshapes how we conceptualise and

interpret play of this kind. It supports the observer to look beyond the fast-paced, fleeting nature of such play and to consider the ways young children are subtly communicating and negotiating signals and messages. Such attention is rewarded with insights into embodied, enacted, ephemeral play shaped on-the-go and in-the-moment, formed through subtle multimodal design and redesign. In this way, multimodal transcription not only 'visualises' play by making it visible and sharable, but also offers a new lens through which we might understand the semiotic complexity of play.

Competing Interests

The author has no competing interests to declare.

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