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HEY, WHERE'S THE MONSTER?
HOW A STORYTELLING GAME IS PLAYED
IN A PRESCHOOL CLASSROOM

by

Jeremy J. Sydik

A DISSERTATION

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(Cognition, Learning, and Development)

Under the Supervision of Professor Christy A. Horn

Lincoln, Nebraska

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Jeremy J. Sydik, Ph.D.

University of Nebraska, 2016

Advisers: Christy A. Horn

The purpose of this qualitative study was to examine how early childhood learners between the ages of 4 and 6 and their teachers experience the play of a structured cooperative storytelling game in their shared classroom environment at a university preschool child development center, with specific focus on issues of cognitive and social knowledge construction. This study used an instrumental case study approach to observe classroom game play sessions as well as qualitative interviews to explore the features of a cooperative storytelling game play activity, to ask how these features inform understanding of cognitive and social knowledge construction, to identify best practices for developing similar activities, and to identify implications for future inquiry. Themes from the analysis of observations and interviews were identified in the areas of play and games, classroom practice, and narrative storytelling that identify best practices for using this sort of game in the classroom as well as inform broader understanding of game-based play in early childhood classrooms. Games were viewed favorably in concept, but were not the norm and were typically focused on skill practice when used. Implementing storytelling games in the classroom was found to be successful, with students producing rich narrative, particularly when classroom goals and student needs were well understood and student ownership of the game space was maintained. Teachers were found to desire more methods training in achieving this, however, and effort should be made to address this need.

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1 | Introduction

Storytelling play helps children begin to understand that each person has a story to tell and there is value in sharing that story. In early childhood, it is key that ALL children feel listened to by their peers, teachers, caregivers, parents, and adults. As children develop empathy, it becomes easier to do that, but providing children with endless opportunities to see, taste, touch, feel, and hear stories presented in multiple ways is critically important to children's development. —Jack

Opportunities for play and game-based learning have been reduced in many early grade school classrooms as well as in early childhood environments such as preschools and child development centers in favor of direct instruction of reading and math skills. Parents and educators, while acknowledging the value of these skills, have raised concerns about whether it is appropriate to use an organized academic structure to educate young children. A game-based play learning approach presents one possible structure for bringing play experiences into a classroom while providing a structure that could be explicitly evaluated in terms of classroom objectives. The purpose of the present instrumental case study is to examine how early childhood learners and their teachers experience the play of a structured cooperative storytelling game in their shared classroom environment at a university child development center.

Over the last twenty years, there have been many changes in the way that both preschool and early grade school education approach academic skill development, focusing more heavily on explicit reading and mathematics instruction. As a consequence, and of

deep concern to many educators, is the way in which skill oriented approaches have reduced the amount of time allocated toward play, particularly for early childhood learners at preschools and child development centers. Some, such as Zigler and Bishop-Josef (2004) argue that this “evaporation” of play comes at too high a cost and that changes toward academic skill education have been at best ineffective in many cases, and may have had an overall negative effect on school readiness. Others view focus on skill training as only a single component of a larger set of trends reducing overall play activity in early childhood, including it alongside other factors such as increased media usage and over-scheduling children into highly structured group activities that are similar to but not substitutable for play (Russ, 2014).

Rather than adding further to divisions in the early childhood education community, it may be possible to find a middle-ground where semi-structured opportunities for play are considered in terms of the opportunities afforded for skill acquisition. For example, while understanding the call for more academic instruction oriented classrooms, Cooper (2005) defends the role of play and storytelling curriculum. When these approaches are used, she argues that the processes activated when using storytelling play will lead to positive outcomes with respect to oral language development, understanding of narrative form, and knowledge about print function and word use. These content areas are presented as ideas that can be augmented and formalized through direct instruction scaffolded upon experiences developed during play.

Paley’s long experience in preschool classrooms leads her to strongly characterize learner generated story and dramatization as a central principle and technique for early developmental and academic learning, saying:

“The mind that has been freely associating with playful imagery is primed to tackle new ideas. Fantasy play, rather than being a distraction, helps children

achieve the goals of having an open mind, whether in the service of further storytelling or in formal lessons.” (Paley, 2004)

Playing With Stories

The telling of stories is amongst the oldest tools for education and is still one of the primary methods of transferring content knowledge directly to learners as well as for modeling story elements in literacy development. While storytelling is often used only as an instructional technique by teachers, it is straightforward to assert that this use ignores the potential of other important features and possibilities. An examination of previous work will show that learner-directed storytelling can also provide a powerful framework for guiding knowledge construction from both cognitive and social perspectives.

One way to view this dual approach is in the context of Bruner’s narrative and paradigmatic modes of thinking (Bruner, 1986). In Bruner’s model, the *paradigmatic mode*—the logical analytic mode of thought—is representative of the practice of looking at story process as merely a bridge toward explicit literacy instruction. In contrast, the *narrative mode*—storytelling as a method for constructing notions of reality—speaks more strongly toward the other values of the storytelling practice that are readily practicable in dramatic and storytelling play experiences. In any case, it is important to view both modes of thought in a balanced manner, understanding that neither mode can be reduced to or replaced by the other without cost to the learner’s overall development.

The storytelling curriculum documented and promoted by Paley (2004) among others appears to provide one way of achieving this balance. This curriculum combines dramatized fantasy play with construction of a documented story product collected through recorded dictation of learner stories. This technique is framed as useful, not only for literacy and storytelling objectives, but for general development of thought processes as

well. The documentation of the story process also provides a way to describe or quantify what is happening during classroom play in a manner that is not normally an option in purely free play experiences.

The Potential for Game as Structured Play

One area of interest for bringing semi-structured play activities into the classroom is found in the area of game-based learning. Games, correctly chosen, can be used independently by students as well in teacher-led classroom play. The notion of games as a valuable tool in learning has been acknowledged in the learning sciences for nearly a century, beginning with pioneers such as Piaget and Vygotsky. The so-called marble study discussed by Piaget (1965) specifically focused on how a system of rules and play with rules impacts moral development. Toward the end of his discussion, however, Piaget pointed out the value of game experience as a fertile ground for investigating moral and intellectual development in general.

Vygotsky (1966) proposed play more prominently as a central source and process of development in early childhood. Imaginative play was described in terms of the then-new model of the zone of proximal development. Vygotsky proposed that when children encounter a concept just beyond their ability to realize and there is a desire for immediate realization of the concept, they use imaginative play to satisfy and explore the concept. This led him to comment “And so I would like to say that the creation of an imaginary situation is not a fortuitous fact in a child’s life; it is the first effect of the child’s emancipation from situational constraints.” (pg. 75)

These early recommendations in favor of game-based and imaginative play notwithstanding, however, the need for research on these forms of play has not been sufficiently addressed. In referencing early works from Piaget (1965) as well as a string of consistent

calls to action over the decades following, Pellegrini (2009) notes that these calls have gone largely unheeded and that play and games are still surprisingly under-researched in educational literature, particularly in the context of the volume of time and financial resources applied to various forms of game activities in the surrounding culture. In recent years, there has been more research activity in the area of game-based education, but this research only addresses some gaps. One particular concern is that the vast majority of research work in game-based education has focused on digital gaming and play experiences. While digital gaming and play is a valuable area of research, concerns about the level of exposure to digital content in early childhood remain, as do concerns about teacher controllability and modifiability of digital content. Aberg, Lantz-Andersson, and Pramling (2014) document an additional concern about how learner effort is focused. In their study, which used a technology-based intervention for story generation, students spent a disproportionately high amount of their time learning to correctly use the software intervention relative to the effort directed toward the writing experience the software was intended to facilitate.

Important questions to consider about the use of games and play for education are whether they are a good match to curriculum goals as well as what *kinds* of games and play are appropriate. The relative affordances of physical, digital, and conceptual games should all be considered, as the “best” solution is highly situational and the question should be viewed as “when and where” rather than “if and which”.

Statement of Purpose

In an educational era where the role of play and game-based learning in early childhood classrooms has been increasingly minimized in deference to so-called “academic” interventions, how can we better understand the role and utility of play in early education?

Specifically, the present research focused on developing a better understanding of the ways in which young children generate collaborative narratives and negotiate individual and shared meaning in a storytelling game experience. Important questions guiding this research included:

- What can we understand about the role of organized play in the form of a generative storytelling game?
- How does this understanding of the role of play inform our understanding of cognitive and social knowledge construction?
- What might be best practices in developing game and organized play activities for classroom use?
- What are the implications of this study's findings for future inquiry?

To observe this experience in an embedded setting, a qualitative approach was chosen to allow participant voices to guide understanding and insight from the perspective of lived experiences as answers to these questions are sought.

Central Question and Positioning

When approaching a question from a qualitative point of view, it is important for researchers to frame their work in terms of a central question as well as to declare the personal positioning from which they approach their research (Creswell, 2009a). The central question of the present research is, with an eye toward issues of cognitive and social knowledge construction, how do early childhood learners and their teachers experience the play of a structured cooperative storytelling game using pictorial representations in their shared classroom environment? Specifically, how do the features of this form of play activity facilitate or guide social and cognitive construction of knowledge in the context of story generation, and what are the positive and negative affordances of this approach?

In order to better understand my position in conducting this research, it should be understood that this research has been done from a pragmatic point of view, searching for gaps in understanding as well as for promising areas for future inquiry. Additionally, it is my belief that persons have their most important insights in the context of their own lived experiences, and as such my worldview is generally aligned with a constructivist model. Specifically, my perspective on constructivism is strongly influenced by the constructionist model as described by Papert (1980) and further expanded upon in Papert (1991). This perspective is centered around the claim that learners are active agents in building their own knowledge (i.e. they are constructivist) and additionally that this building of knowledge is particularly effective when the learner is engaged in the building of external artifacts such as models, images, software programs, or stories.

2 | Review of the Literature

The present work is situated at the intersection of three broad areas of inquiry: storytelling and narrative, play and game, and early childhood education. The difficulty in examining this intersection is that two of the three areas are broad enough that it is important to clarify exactly what is meant by terms such as storytelling, narrative, play, and game for the purposes of this exploration. For this reason, the review of these topics was focused on examining the perspectives of prior works to come to clear stable operating definitions, specifically from a constructionist perspective. Early childhood education was examined with the specific purpose of understanding developmental appropriateness of storytelling activities for early childhood learners, methods for facilitating such activities, and guidelines to frame the perspective of what might be expected during observation of the classroom.

Storytelling and Narrative

In the body of discussion regarding the notion of “storytelling”, several largely independent threads are found. The use of story by an instructor to relate examples of history, culture, or experiences is one common pedagogical technique and much has been written about various techniques and best practices, including Paris and Paris (2008).

A second use of storytelling in instruction is for the explicit teaching of literacy skills. Storytelling experiences have in particular been found to promote the understanding of expressive and receptive language, comprehension of oral language, breadth of vocabulary, and the ability to understand fundamental story structure (Griffith, Beach, Ruan, & Dunn,

2008). As when used to relate exemplars, this is primarily implemented as teacher or parent storytelling rather than by using stories created by learners, though student storytelling is used in some writing instruction as a method of working through process (Miller & Pennycuff, 2008).

A third use of storytelling particularly valuable to younger groups of learners is that of learner-generated storytelling. Vivian Paley has long promoted the method of dictation and dramatization, where early childhood learners who are not yet able to write their thoughts are able to dictate their stories to an adult for transcription and then act them out for their peers (Paley, 1981, 1990). While Paley's work is a rich narrative description of her 40 years of observations in early childhood education, it makes few connections to underlying theoretical dimensions. Her observations are, however, highly consistent with principles of cognitive and social constructivist learning theories, particularly those related to narrative process. It should be noted that while Paley's method, at first glance, bears a passing resemblance to the notions of Thematic Fantasy Play (TFP) described by Saltz and Johnson (1974). The primary difference between the two approaches is that in Paley's method, generative storytelling is of key importance, where TFP generally relies on dramatized reenactments of teacher-selected stories without creation of stories by the learners.

For the purposes of the present research, the focus was on the narrative process as it appears when stories are created rather than read or performed by learners. Choosing to narrow the focus in this manner should be viewed as tightening the focus of the current work and not as diminishing or minimizing the pedagogical value of storytelling as an exemplar for literacy instruction.

Narrative as a Knowledge Construction Process

A body of work produced by Jerome Bruner during the late 1980s and early 1990s provides a comprehensive examination of the notion of narrative thought as a knowledge construction process. Bruner (1986) described a duality in the modes of thought: a *paradigmatic mode* exemplified by well-formed arguments that allow for logical and scientific examinations of the world as it has been understood by a cognitive agent and a *narrative mode*—the “good story” that the agent uses to construct an understanding of the surrounding world in the first place. While Bruner’s discussion strongly focused on the narratological mode, he clarified that this was intended to address underrepresentation of narrative in the broader discourse rather than to place the narrative mode as superior to the paradigmatic mode. At all times, it is important to heed Bruner’s warning that “Efforts to reduce one mode or to ignore one at the expense of the other inevitably fail to capture the rich diversity of thought” (pg. 11).

Adding to the view of narrative as a central tool for understanding construction of knowledge, Bruner (1987) further discussed the idea of narrative mode thought as a central principle of identity self-construction in the form of autobiographical narratives. These narratives are constructed as a way to make sense of our experiences in the world and are reflexively enacted into the world via our constructed identities.

While the process of identity construction in this fashion is generally internal, it may in some cases be observed externally through the form and use of language patterns and vocabulary in situations where it is important to the individual to assert specific identity claims or in order to negotiate the social construction of a given discourse space (Gee, 2011). For example, students frequently use different terminology and idiomatic speech at school than they would in the home. Even within the school environment, similar differences can be seen between classroom and playground speech. Bruner (1991) also

discussed these properties of narrative thought in terms of the social construction of reality, giving particular attention to the duality of experiences. By this he meant that we first make stories, then live these stories out enactively as experiences. These experiences then inform newly formed or revised stories and this cycle continues.

In *Acts of Meaning* (Bruner, 1990), Bruner formalized his work on the properties of narrative mode thought. The narrative mode of sense making and negotiation of meaning was described as a “crowning achievement” of human development, and three essential features of the mode were discussed in depth:

- A principal property of narrative mode thought is *sequentiality*. Meanings are given to these sequences of events by giving or deriving a *plot*. In describing this property, Bruner used the Russian term *fabula*, referring to a raw chronology, as opposed to *syuzhet*, the organization of the chronology into meaning. This highly formal distinction is likely made in order to highlight the constructive nature of plot generation against the observed chronology.
- Narrative mode thoughts can be ‘real’ or ‘imaginary’ without challenging their power or utility. In other words, the mind can conceptualize both factual and fictional elements, sometimes in parallel in order to engage in sense making. This includes the notion of constructing limited internal models for sense making or proposing theories at the edge of a zone of proximal development in an attempt to reach across to the other side.
- Narrative thoughts “specialize in the forging of links between the exceptional and the extraordinary”. In terms of the ways that children interact with and understand the world, this feature could be looked at in Piagetian terms as a process of accommodation and assimilation via an internal reconciliation of disequilibrating information or experiences through the construction and reconstruction of explana-

tory narratives. This “forging of links” may also be viewed in terms of a Vygotskyan zone of proximal development stretch where new and unknown ideas are carefully explored in terms of existing experiences.

With the Brunerian model of narrative in hand, and an understanding of how it represents conventional modes of constructivist thought, it is useful to next consider specific features of this model.

Features of the Narratological Model

Two primary implications of the narratological model put forward by Bruner are its use in meaning or sense making (for internal cognitive construction), and in negotiation of meaning with others in a social context (for external social construction).

When considering the implications of the narratological model, two ways in which narrative is used are particularly useful to consider. First is the use of narrative to press at the edges of personal understanding in order to make sense and meaning of novel concepts. This can be viewed as an internal cognitive construction as children develop understandings and meanings. Additionally, narrative is used to negotiate these internal meanings with others across the walls of independent agent understandings in social contexts. This can be viewed as external social construction by a group of individuals. With these two uses of narrative in mind, the construction of narrative presents itself as an essential operating principle for understanding both cognitive and social constructivist processes.

Cognitive Construction of Meaning

Narrative should be examined as a tool for individual cognitive construction of meaning by children (though the value of this process should not be overlooked by those considering other populations), both for its contributions to schema formation and negotiation of meaning and as an underlying factor in the social construction of shared meaning. Collins

(1999) gave an overview of potential contributions of storytelling to education at an early grade school level, situated on storytelling within the language arts curriculum. Narrative was found to be beneficial when proposing and working through situational thoughts and feelings contributed to emotional development. Working through specifically autobiographical narratives also promoted identity development.

Grugeon and Gardner (2000) found benefits in using narrative with young children as a tool for teaching science and math curriculum through stories. In this work, there was a significant amount of pre-construction work in the curriculum, but it was also implied that using more heavily learner-generated stories might be more productive for future work.

Amaro and Moreira (2001) observed both Piagetian accommodation and assimilation processes at the early grade school level in the negotiation of personal and cultural thoughts and ideas during development of a software tool for supporting narrative creation. Learners were also observed forming scripts and schemas surrounding these insights.

Gee (2011) describes narrative language in terms of discourse analysis, characterizing language in terms of saying (informative), doing (enactive), and being (identity-forming). Gee's focus is on the use of language to create prototypical models and simulations to process experiences. Perspectives are taken on these processed experiences in order to encode concerns into narratives as a means to resolve or make sense of them.

These findings suggest narrative creation may be a valuable tool for the cognitive construction of meaning. The value of narrative can be seen at fundamental levels such as in the construction of scripts and schemas as well as at higher order levels such as emotional and identity development. Further, creating and engaging with narrative can be a useful tool for negotiating new or conflicting information. The narrative form (informative, enactive, identity-forming) and positioning (cultural, personal, autobiographical) also appear to play an important role in how construction of meaning manifests and should be considered when observing narrative creation.

Social Construction of Meaning

With a solid basis for using narrative as a tool for cognitive construction of meaning, it is also productive to consider narrative as a method for the social construction and negotiation of meaning with others. Giffin (1984) presented a model of in- and out-of-frame metacommunication as a strategy preschool children use when negotiating meaning. Narrative processing allows negotiation of meaning with self “in-frame” and with others “out of frame”. The narrative style was found to grant a greater range and flexibility to negotiate the play space through this process of self-orientation and identification.

Kafai (1995), working with older students at the late grade and middle school levels found that when learners were given the task of generating games to teach mathematical reasoning, the learners transitioned sharply into a narrative mode of thinking. When it became important to construct a meaningful context to situate their games, the learners generated narratives to both situate their games and to communicate the purpose of their projects to others.

Nourot (1998) found sociodramatic narrative play at the early childhood and kindergarten levels to be a key activity in making sense of the world, particularly emphasizing the ways in which the negotiation and communication of meaning provoked an “exploration of borders” in terms of a Vygotskian ZPD stretch. Fayol (2004) reexamined processes for comprehension used by adults in the context of grade school children, documenting processes of narrative generation as organization of information to communication with others and narrative comprehension as the parallel delinearization of the narrative into internal mental representations.

Nicolopoulou and Richner (2004) examined single and group authoring of stories by 4-year olds using the dictation and dramatization method promoted by Vivian Paley (Paley, 1981, 1990). It was found that the group authorship by young children resulted in socially

constructive brainstorming activity. These brainstorming sessions lead to sharing and transfer of information within the group as well as to expanding technique use beyond the limitations of original narrative style preferences. Aberg et al. (2014) presented a study on technology-mediated storytelling by 6-year olds in a preschool classroom, finding narrative to facilitate not only sense-making but also the ability to remember experiences and clearly communicating them to others.

In summary, research to date has shown that narrative creation is valuable for social construction and negotiation of meaning. This value is found both in the sharing of information, in negotiating meaning, and in personally renegotiating meaning when conflicts arise with others. Of particular note, learning within the zone of proximal development can be seen when this process operates at the edge of learners' current abilities.

Storytelling and Narrative Defined

The following definitions will be used for the present research, derived from Bruner (1986, 1987, 1990, 1991) and using the form and specific terminology of Gee (2013):

- *Narrative* is the use of language of any form in which events are organized into chronological order.
- *Plot* is the series of causal connections between a group of events with an intent of making or conveying sense or meaning to the events.
- *Story* is a narrative with a plot.

Storytelling, therefore, may be defined as the process of generating a story by constructing a plot for a narrative and can be looked at as a central process of cognitive construction. When this story is communicated with another and reconstructed as necessary to negotiate a shared meaning, it can be looked at as a central process of social construction.

Play

Play and traits of playfulness have long been found to relate to beneficial developmental features such as ideational fluency, spontaneous flexibility, originality, and creativity (Lieberman, 1977). Additionally, work in learning research by Fler (2011) has found that imaginative play experiences positively influence concept formation as well as the ability to move concept understanding more freely between experience and imagination and between individual and social processes.

Despite recognition of the benefits of play, establishing a firm working definition for play has historically been challenging. Attempts to put forward a working definition of play have been a thread throughout the history of psychology and are still an evolving and occasionally contentious area of discourse. Piaget (1962) went so far as to claim that “the many theories of play expounded in the past are clear proof that the phenomenon is difficult to understand” (pg 147). This is not to say that Piaget did not find value in having a working definition, however, as he later defined play in the same work as a way to assimilate features of the external world to the internal world of the child. This is in contrast to the earlier definition of Dewey (1910) defining play in opposition to work as something with no sake other than itself and no focus on an outcome. Vygotsky (1966) deferred from developing a succinct definition of play, instead presenting a model of play as an activity for pushing the bounds of a zone of proximal development into novel directions.

Huizinga’s classic work on the philosophical theory of play, *Homo Ludens* (Huizinga, 1949) identified five essential aspects of play:

- Play is freely enacted
- Play is not ordinary in the sense of being of “real life”
- Play is distinct from real life with respect to location and duration

- Play is ordered or in its process creates order
- Play is disconnected from material gain or profit.

While there has been open debate about what it means to be freely enacted, how separated from reality play must be, and whether gains from play are a disqualification, the second and third points lead to the most lasting contribution of *Homo Ludens* to the understanding of play. The distinct and non-ordinary nature of space is connected to Huizinga's notion of the "magical circle"—a physical or conceptual space set aside for play to take place in. Caillois (1961) further expanded on Huizinga's model to, amongst other issues, provide categorization for forms of play such as competitive, chance, imaginative, and physical play.

With the purpose of reviewing prior theories of play in context, Sutton-Smith and Kelly-Byrne (1984) proposed a bipolarity in theories of play, one side representing play as a contribution to and a reflection of societal structures and the other viewing play as a creative and transformative act upon a society. The bipolarity model attempted to reconcile the two views by framing the former as an equilibrating concept to keep balance in society and the latter as a disequilibrating concept to incorporate novel concepts. Similarly, Saracho and Spodek (1998) reviewed the history of theories and definitions of play within the context of constructivist learning theories, emphasizing the voluntary nature of play. This constructivist framing paralleled the earlier work by (Sutton-Smith & Kelly-Byrne, 1984), modeling play again in terms of equilibration, with particular focus given to the processes of assimilation and accommodation.

In these ways, further definitions of play tend to follow one of two paths, either keeping a very open and broad definition such as "Play is free movement within a more rigid structure" (Salen & Zimmerman, 2004) or a multi-part categorical (and often conditional) definition such as provided by Rubin, Fein, and Vandenberg (1983) defining play as:

- motivated by personal satisfaction instead of social or internal demands.
- focused on activity rather than goal with goals spontaneous and self determined if present.
- self controlled with familiar objects or focused on the exploration of novel objects.
- potentially non-literal.
- absent of external rules not agreed to by or modifiable by the players.
- actively engaged in by the players freely.

Play Defined

Two aspects are essential for defining play in terms of constructivist learning models in the present work. First, the notion of a play space as a focal point for the play act is necessary in order to discuss where the act of play happens. The construct of the Magical Circle proposed by Huizinga (1949) is largely sufficient in describing this space.

A notion of the nature of the player is also necessary. Free and engaged participation without external gain is a common attribution required of the player in many of the definitions, but this is a problematic requirement. It is no more sensible to arbitrarily unmake play and player in the presence of a perceived gain or payment than it would be to do such to art and artist in a parallel circumstance.

What it means for a player to be free and engaged is also left vague in these definitions. For present purposes, this work replaces “free and engaged” with the substitute notion that the players are independent cognitive agents. This allows more precise consideration of play as a classroom activity where earlier definitions raise questions about whether curricular play can even truly be acknowledged as an act of play. With this substitution, play will be defined for the current work as follows:

Play is an activity that:

- Takes place within a limited subset of a factual or fictional discourse space (Play Space).
- Involves the participation of one or more active cognitive agents who interact with the Play Space and optionally with one another (Players).

Thus, the act of play will be considered as the interactions of active cognitive agent players in the context of a play space representing a limited subset of a factual or fictional discourse space.

Game

With the number and variety of definitions for the term play, it is unsurprising that the definition of the term “game” is similarly contentious, broadly defined, and under debate within research communities with none of the existing definitions being particularly satisfying. This inability to find an inclusive list of definitional features was also observed by Wittgenstein (1953), causing him to use game as a primary example for his notion of familial resemblance, in which a concept is defined by a set of common features, even though no single one of the features may appear in any particular example of the concept. With this in mind, a representative set of definitions will be reviewed to form an operational definition for the current work.

One way to attempt definition of the notion of game is by establishing a set of important or necessary attributes that must be present in order for a play activity to qualify as a game. Expanding from Huizinga (1949), where a detailed differentiation between the notions of play and game was left unspecified, Caillois (1961) defined game in terms of a series of necessary characteristics. In Caillois’ model, a game must be fun, separate in

time and space, uncertain in outcome, non-productive in the sense that the players are in the same material state at the end of the game as at the beginning, governed by rules, and fictitious in nature. Considering the game from both structural and social points of view, Juul (2005) defines games in terms of six characteristics: A rule based formal system, variable and quantifiable outcomes, differently assigned values for different outcomes, an outcome influenced by player activity, and negotiable consequences to participation in the activity.

Others have attempted more direct positive definitions of what a game *is*. Abt (1970) defined a game as “an activity among two or more independent decision-makers seeking to achieve their objectives in some limiting context.” More verbosely but with nearly identical intent, Avedon and Sutton-Smith (1971) stated that “at its most elementary level then we can define game as an exercise of voluntary control systems in which there is an opposition between forces, confined by a procedure and rules in order to produce a disequibrial outcome”, meaning one unlike the starting state. Salen and Zimmerman (2004) conducted a comprehensive examination of previous definitions of game by philosophers, play and games researchers, and game designers including most of the ones mentioned above. Using this analysis as a basis, they provide the definition “A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.” McGonigal (2011) provides one of the most straightforward definitions, combining positive definition and necessary attributes to state “all games share four defining traits: a goal, rules, a feedback system, and voluntary participation.”

Game Defined

As a representative sample of attempts to define the notion of game, the necessity of some of these aspects and attributes is easily disputable when set against existing games. For one example, the necessity of voluntary play leads to a paradoxical definition—few



Figure 1: Roads & Boats, an example of a modern tabletop board game. If used in a classroom context, it would clearly still be regarded as a game (Sentieiro, 2010).

would dispute that the board game *Roads & Boats* (Doumen & Wiersinga, 1999) is clearly a game (Figure 1), but this attribute would imply that if it were to be given as a classroom activity, it would in some fashion magically lose its status as a game. For another, the insistence by Caillois (1961) that a game cannot result in productive gain results in a similar de-gamification of professional card, video game or sports players. On the other hand, common themes in these definitions of systems, players, goals, and rules seem to generally encompass the properties of most activities classified as games. With a mind toward the notion of game as a ground for cognitive and social construction, the following definition of game will be used for the purposes of this research.

A Game is a form of Play that:

- Takes place within a limited subset of a factual or fictional discourse space (Play

Space).

- Involves the participation of one or more active cognitive agents (Players) interacting with the game space and optionally with one another.
- Presents one or more checkpoints at which progress in the game space can be determined and optionally feedback on performance given to the players (Outcomes). In many games, one of these checkpoints determines the conclusion of the game experience (End Condition), and optionally provides a final outcome that may signify a ranking of players (Win Condition)
- Limits the definition of game space, availability of affordances and restrictions available to the players, and the standards of progress or feedback using a set of constraints (Rules).

On Game Rules as a Society of Play

It is apparent when examining attempts to describe the relationship of game to play that there is a general consensus that the differentiation comes down to the presence of rules in a game where play is permitted a freer construction. The position of “rule” as a defining characteristic of game is sensible, but the ill-defined use of the term also generates a certain level of confusion that has obscured the nature of the relationship. In the worst cases, some discussions of game spend as much time working to determine whether a particular activity properly constitutes a game as in discussing the properties of the activity itself. One way to address this problem is to examine the similar ill-definition of the term “rule”, where it may be used interchangeably to refer to physical laws, legislation, or cultural conventions. Rather than another attempt to consolidate prior usages into a singular definition, it will instead be asserted that the various forms of rules found in games exist as a society of play where the distinct forms of constraint come together in

various measure in the emergence of a game from free play. The forms of constraint under consideration are:

- *Rules as Laws of Play*: This form of constraint is analogous to physical law and is usually applied to the physical and conceptual limitations or affordances of the play space. For example, in a board game, a piece may be sized such that it is not physically possible to stack it onto another piece or place it within a space. Similarly a player in a sport is typically unable through conceivable means to fly or teleport across the field.
- *Rules as Legislation of Play*: A second form of constraint represents the lawyer or legislator, where limitations and affordances are defined by an authoritative party. By default this power resides with the designer of the game, with power potentially granted to a referee to handle unanticipated cases. Though it is not uncommon for players to enact the equivalent of a citizen consensus to amend the designer intent with “house rules”, the legitimacy of this action is a matter to be considered under the next form of constraint. Examples of these legislative rules are those found in rulebook explanations of permitted actions, order of play, and the standards of success or failure as defined by victory condition or point assessment.
- *Rules as Conventions of Play*: A final form of constraint are the cultural norms addressing the manner in which it is acceptable to play a game. By their nature, these kind of rules are highly dependent on the context in which the game is played as well as on the composition of the group of players. In the example given previously, whether it is acceptable to create house rules is dependent on this form of constraint. For example, house rules are considered unacceptable in many games played in a competitive tournament fashion while in casual play, the acceptability is determined by consensus of the players engaged in the game. This form of constraint can be

seen in agreements of how to proceed when a rule is missing or unclear, such as the “‘Yes, And’ but never ‘No’” rule of improvisation, the expectation that an opponent call “Check” in a game of Chess, or the inappropriateness of deliberately running up a crushing score when a win condition has been clearly achieved.

Arguably, the last of these forms of constraint has also been least acknowledged as a form of game rule. Certainly social conventions have been discussed as part of a game’s social context, but less often as part of the system of rules that emerge in a game from the context of play. As this form is the most likely place to observe social construction, it is critical to keep in mind.

Narrative and Early Childhood Education

In order to understand the potential for generative narrative in a preschool classroom, it is important to consider the specific developmental abilities and needs of early childhood learners, both in terms of which narrative abilities are likely to be present as well as of best practices to guide interactions.

While some work in narrative has raised concerns about the cognitive and developmental capacities of early childhood learners, as described by (Bokus, 2004), there is much to be said in favor of children’s abilities to develop complex narrative understandings. Wolf, Rygh, and Altshuler (1984) observed, with some assumptions of common scripts for basic routines to build upon, that children at the 3–4 year age range are able to clearly construct narratives involving others with consideration of empathy. Beyond the notion of recognizing agency of other, Giffin (1984) observed social construction through in and out of frame metacommunication in narratives generated in dramatic play in learners ages 3–5. Further, (Nelson & Seidman, 1984) found that children in the 3–5 year old range were able during pretend play to establish and maintain a shared world space in a coherent

manner. Nicolopoulou and Richner (2004) found, in a study of more than 300 4-year-old preschool students that, beyond the use of narrative technique, there is a collaborative sharing and transfer of narrative style preferences and concepts when constructing individual and group authored stories. For more novice learners or with less well developed verbal skills, Amaro and Moreira (2001) presented an intervention where young children exhibited nonverbal construction of narrative using drawings, paintings, and other pictorial representations.

Age Constraints on Narrative Construction

In response to claims from parts of the narrative research community that the ability to generate narratives representing mental state does not develop until about 7 years old, several researchers have worked to document the developmental process of narrative in early childhood more clearly.

Kavanaugh and Engel (1998) discussed developmental features of pretense play through the lens of Brunerian narrative form thought, finding that predevelopment of narrative form emerged between 18–24 months of age, beginning with basic notions of storytelling and improving via simple repetition with addition of novel detail during repetition. By age 3, basic notions of temporality and chronology were found in the description of events in stories with fuller emergence of narrative form between ages 3 and 5. The number of shared pretend play experiences as well as the level of parent-child conversation were found to influence the development of narrative construction.

In order to resolve differences where construction of narrative is observed, Bokus (2004) studied story dramatization in the stories of 256 3- to 6-year-old preschool students. The study indicates that, by 4 years of age, children can make attributions about character mental states, though certain techniques to refine characterizations such as negation or confirmation don't generally appear until later (age 5 or 6).

Like Bokus, Nicolopoulou and Richner (2007) set out to resolve differences in age thresholds for narrative construction between theory of mind and narrative literature. Specifically, theory of mind research indicates a far younger threshold for when children develop mental conceptions of characters and personas. Analysis of 617 learner-generated stories, found that the generally superficial nature of characterizations at age 3 had transitioned to character agents with basic mental states by age 4 and further into agents with more complex mental representations by age 5.

Paris and Paris (2008) discuss narrative construction in general rather than in terms of specific tasks, finding that emergence of theory of mind is prominently observed at 2–4 years of age with a well developed understanding of the mental states of self and others by age 4. Narrative language observed in the 4–5 year old range included accounts, recounts, event casts, and stories. The presence of regular and sustained opportunities for quality conversation improved narrative development. Story structure also emerges strongly in these age ranges, specifically from 3–5 years of age, though some plot connections may be less coherent to others in the earliest months of this range.

Guidance for Storytelling with Young Children

In a study of role enactment play, Curry and Arnaud (1984) found learners in late preschool settings to have strong ability to engage in narrative play. Guidance was given for teachers and parents to fill the roles of mediators or facilitators in the experience, being ready to step in if necessary, but allowing the learners to guide the process. This is more likely to be necessary for younger learners and those new to narrative play as well as when learners reach a point of confusion or inability to negotiate common ground in the shared narrative process.

Russ (2014) provides guidelines for facilitating pretend play for late preschoolers, again taking the perspective that the learners should predominantly lead the process, encourag-

ing them toward social interaction in play to resolve conflicts if they arise and only directly assisting when these social negotiations begin to fail. Recommendations for facilitators also include being an active audience to the learner's work, expressing emotion and enjoyment openly while avoiding showing behaviors that could inadvertently be perceived as boredom or that the activity is "time-wasting". It is also recommended that the teacher facilitator openly model divergent thinking, perspective taking and imagination activities outside the pretend play activity. This can also be done within activities as well, but the facilitator should be careful to not take lead of the play.

With these findings and recommendations, it seems reasonable to engage in storytelling game play with children in the 3–6 year old age range, provided there is appropriate care in selection of the game in terms of complexity, depth, simplicity of game rules, and play time. There may be a need for more facilitation of the activity toward the younger end of these bounds or with learners who have less experience playing games or in telling stories as part of a group. It is also expected that some features of the learner generated stories will be less fully developed for younger learners. Still, there is strong reason to accept that story game experiences are an appropriate activity for learners in the upper preschool age range.

3 | Methods and Data Collection

The focus of the present research was to develop a better understanding of the ways in which young children collaboratively generate narratives in a storytelling game. Of particular interest are how individual narratives emerged within the game experience, how these individual narratives were negotiated into a shared narrative, how the affordances of a particular game impacted this process, and which best practices were implied regarding the use of such a game in the classroom. In order to observe this experience in an embedded setting, and to allow for participant voices to clearly guide understanding and insight into these issues, a qualitative approach was chosen. Qualitative research is a methodological inquiry process intended to explore and understand social and human experiences holistically by capturing participant meanings and understandings within the context of their lived experiences (Creswell, 2009b).

A collective instrumental case study was selected to examine the central phenomenon at hand, the shared experience of young children and their teachers generating stories through the play of a table game. A case study is the examination of a phenomenon within the context of a bounded system, paying attention to the definitions of Creswell (2009a), Merriam (2009), and Yin (2009). Further, Stake (1995) describes an *instrumental* case study as one where understanding is targeted to an underlying issue rather than to the case itself. For the present work, the case was bounded by the play space of a single game session, where the underlying issue was the emergent narrative play of the players rather than the structural details of the game itself. Sub-boundaries of the game play session were the experiences of the learners and of the teachers during game play.

Participants

To obtain multiple perspectives of the phenomenon of creating stories through storytelling game play, both preschool learners and their teachers were recruited. Participants were selected purposely but opportunistically from the older classroom of the laboratory preschool of a large Midwestern university accredited by the National Association for the Education of Young Children (NAEYC). Learners in the classroom were children primarily between the ages of 4 and 6 years. There were 11 students, six girls and five boys. Teachers included the permanent teaching staff of the laboratory school as well as teacher students, primarily upper undergraduate students majoring in education or family sciences who teach at the school under the supervision of the permanent teaching staff in order to fulfill practicum requirements.

Copies of an overview of the study with an approved informed consent form were distributed by the laboratory school director to parents or guardians of all children enrolled in the older classroom, who were given the option to choose whether or not to give consent for their child to participate in the research study. The researcher distributed copies of the study overview and approved consent form to classroom teachers who were given an opportunity for voluntary participation in the research study.

Procedures

The study took place at a large Midwestern university's laboratory preschool which was accredited by the National Association for the Education of Young Children (NAEYC). Procedures for research were designed with guidance from the school's director in order to implement the procedures with minimal disruption to teachers and learners. Before the storytelling game was played with learners, teachers were introduced to the game, its rules, and rules variants provided by the designer. At this time, the teachers were encouraged

to ask questions about the game and asked to think about which variants they would like to use with their students. After the introduction, the teachers were briefly interviewed about their personal and teaching experiences with games and storytelling (see Appendix A).

Following the introductory session, each teacher played at least two rounds of the game with students in small groups of 4–6 children. While the game was played, the researcher collected observations of the game session with audio recording, photographs, and written notes. Multiple game sessions, facilitated by four teachers and played by eleven students were observed. Observations of the game play sessions were focused on the narratives constructed by players from the game icons as well as the social construction of narrative by the group as multiple elements were connected together through the course of game play.

At the end of each game session, learners were briefly interviewed as a group about the thoughts and feelings they experienced while playing the game (see Appendix B). Further, the teachers were interviewed one-on-one about their experiences and observations about the game session (see Appendix C). An important part of this interview was an opportunity for the researcher to get any necessary clarifications regarding references or vocabulary local to the classroom culture that might be unclear to an outside observer. As an outsider to the classroom environment, it is important to understand that the classroom teachers have a closer understanding of the learners that should be used to inform understanding of the learners' experiences. A followup interview was conducted with the teachers approximately two weeks after the initial game play sessions, to check for any other thoughts or considerations about the game sessions after they had been given time to reflect on the experience (see Appendix D).

Game Selection

The game selected for classroom play was *Rory's Story Cubes* (O'Connor, 2005) (Figure 2). In terms of the theoretical model and recommendations for teacher facilitation discussed previously, this game was judged to provide a promising game space to promote narrative creation by young children. It is minimally structured, allowing freedom for the player in creating stories. It has a short play time, allowing for more stories to be generated in a given amount of time and for more opportunities to contribute to the narrative. Finally, it uses generalized pictorial elements without fixed character constraints or plot elements which leave narrative options reasonably open while still providing a source from which the learner can draw ideas. Additionally, the use of pictorial elements eliminates dependency on the reading skills of the players. For this inquiry, the original set of cubes was chosen, rather than one of several later designs based on licensed intellectual properties that might impose specific character or plot aspects on the players. Additionally, the "Max" set of larger size cubes was chosen to be more appropriate for a younger audience. Suggested rules for *Rory's Story Cubes* can be found in Appendix E, and the iconography used in the game in Appendix F.

Data Collection and Analysis

As the essence of this research was expected to be found in the participatory interaction of the learners and teachers in the game space, the bulk of collected data was from observations of the game sessions. Game sessions were audio recorded and photos taken of relevant game play elements or generated artifacts such as drawings when they appeared. Additional observations of the classroom environment and interactions were journaled by the researcher. After each game session, there was a debriefing interview with the learners as well as with their facilitating teachers. Additionally, at a later date, approximately two

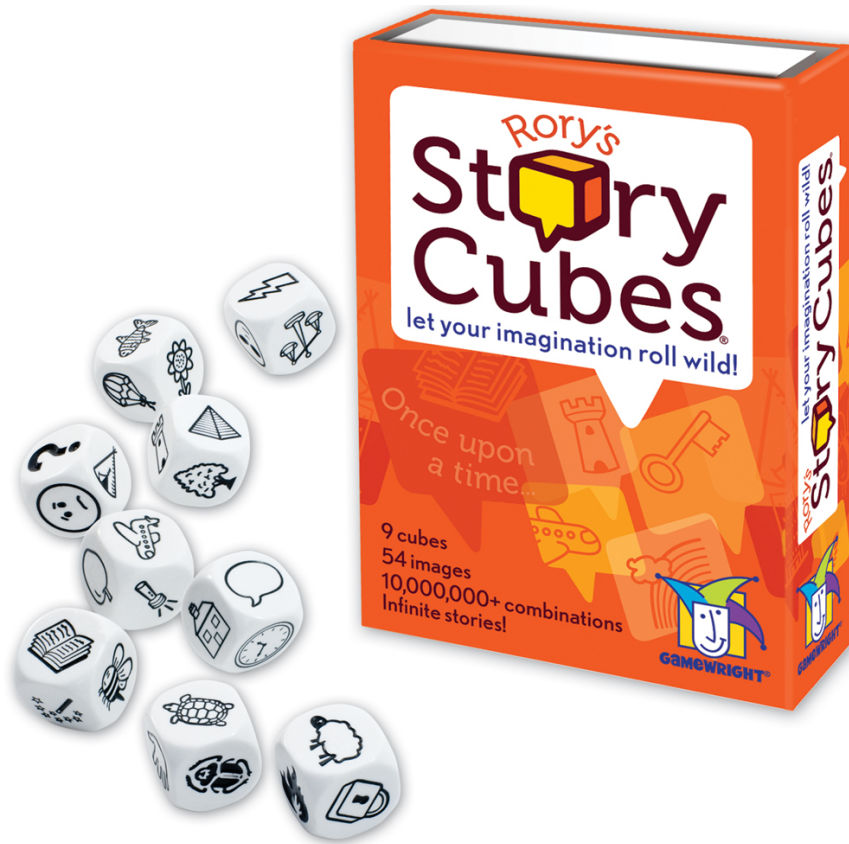


Figure 2: Rory's Story Cubes (Gamewright, 2010).

weeks after the game session, there was a followup interview with the teacher participants to gather further thoughts on the experience. These interviews were also audio recorded and interview notes taken. Audio recordings of the game play sessions and interviews were reviewed and transcribed, marking relevant time codes, assigning pseudonyms as necessary, and highlighting initial observations about potential codes and themes.

Following the recommendations of Guba and Lincoln (2005), Denzin and Lincoln (2000), Stake (1995), and Creswell (2009a), observations and materials were examined at unit level for emergent in-vivo language and imagery. This natural language was translated into appropriate lean codes to be arranged visually and rearranged by similarity to extract themes for reflection in context of the central question. Particularly enlightening or representative quotes and observations reflecting these themes were also noted for inclu-

sion into the thematic descriptions. Understanding that each play experience was unique, cross-case examination was then performed, reviewing the codes and themes again to search for illuminating similarities and differences between the game play sessions.

When considering validation of qualitative findings, it is important to consider the assumptions and lenses of the researcher, the participants, and those external to the study (Creswell & Miller, 2000). For validation, beyond triangulation of observations, initial drafts of case and theme discussions were offered to teacher participants for member checking and to ensure that their voices were appropriately reflected in the discussion. Because of the young age of the learners, the teacher participants and lab school director were also be asked to verify that the learners were accurately represented in the thematic analysis. Additionally, as a parent who often uses games to teach in the home, I also took reflexive note of my own experiences of game play with young children.

4 | Findings

For this work, data collection was focused primarily around recordings of game play sessions and interviews. To minimize disruption to classroom time as well as to respect the attention and patience of the students after the group activity, student questions were given as a brief group wrap-up at the end of the session. The bulk of interviews conducted were with teacher facilitators. In addition to audio recordings of game play and interviews, photographs were taken of drawings produced by students in two of the game play sessions.

Digital transcripts were made of the game play sessions and interviews, with identifying information pseudonymously replaced to protect the privacy of study participants. Appropriate formatting was applied to the transcripts to facilitate identification of codes and themes relevant to investigating the issues under consideration.

After digitization, initial read-throughs were made, centered on the case unit of individual game play sessions to orient toward understanding and description. Secondary read-throughs were made from by-teacher and approximately by-group perspectives (the play groups were generally the same, with small variations) to search for elements that might have been otherwise missed. Treating each element (dice rolls, individual spoken responses during the game play sessions, paragraph level interview responses, individual note statements, and photographic elements) as independent units, a lean coding pass followed, assigning each element a code. These codes were arranged visually, using both note cards and digital clustering tools, rearranged by similarity and themes extracted for reflection in the context of the issues considered. Appropriate or informative quotes and observations reflecting the themes were also noted for inclusion in the case descriptions.

For validation, initial codes and themes were discussed with other researchers in the area of games and play. Draft case and theme discussions were offered to teacher participants and the center director for the purpose of member checking. Finally, as a parent who often uses games to focus teaching in the home, I took note reflexively of the themes in terms of my own experiences.

Participants

As the case unit for the purposes of the present study is of individual game play sessions, it is important to have an understanding of the players around the table. In particular, as these game spaces occur in a classroom, there is an asymmetric intersection of teacher facilitators who lead the game experience and may also choose to take an active player role and of students who play the game but may also collaboratively shape the game space to fit their needs and desires.

Teachers

Four senior preservice teachers played active facilitator roles in running game play sessions in the classroom:

- *Amy* is focused in inclusive early childhood education and has a particular interest in outdoor education. She described play in the classroom as important for interest and engagement and games as a way for her to provide different learning opportunities to her students.
- *Clara* is passionate as an elementary and early childhood educator about helping children grow by exposing them to new experiences. Having played games frequently in childhood during family nights, Clara expressed the view that educational games allow students to learn in a fun and inviting way. This goes hand in hand with her

expressed approach to play as a way to make children feel more comfortable in their peer interactions as well as allowing teachers to discover their students' skills and interests.

- *Donna* is an elementary and early childhood educator with specific interest in field site oriented instruction. She pointed out play as an important factor in social development and games as a way to teach rule following in the classroom.
- *Rose* is double majored in early childhood education and psychology and stated her desire to apply her theoretical knowledge to the structure of her teaching and the way she builds relationships with her students. She described play as a way to help students to express themselves as well as for teachers to better understand the personalities of their students. She expressed a belief that classroom games are a useful way to focus play activities and link them to other classroom objectives.

Additionally, two other teachers in the school played an important role in the present work, either by assisting in classroom game play or in describing elements of the school and classroom culture as well as in answering questions about interactions that were not immediately apparent to the researcher or about issues of practice as observed:

- *Harriet* is a highly experienced teacher, working with young children from infancy through school age with over twenty years experience at the school and many more prior. As a former director of the school, she also has many insights regarding the training of early childhood teachers. Harriet described play as essential to children's learning and games as a natural way for children to encounter the world. She was careful to distinguish self-made games such as those that children create to make chores interesting from games with formal rules in which young children are exploring issues of boundaries and fairness.

- *Jack* has over 25 years of experience focused on early childhood education and is the current head teacher in the classroom. With a strong interest in outdoor learning, Jack claimed that “play is the most effective way young children learn in all developmental areas”. As a child, he described finding the rules of games and remembering how to play them to be intimidating, but now loves the experience of playing them with young children because of the close personal interactions involved in game play.

Students

Eleven students participated in the game play sessions. All of them were in the older portion of the older classroom, which is targeted toward those headed to kindergarten in the near future. Two of the students, Barbara and Ian, were re-enrolled in the school for the summer after their kindergarten year and were headed toward the first grade.

- *Barbara* recently finished her kindergarten year and at the point of this study was currently focused on her developing writing skills and enjoyed using written words as a way to show meaning.
- *Ben* was generally outgoing in active and outdoor activities, but tended to be somewhat more reserved when he was the center of attention in sitting table activities. He told many stories throughout the day, drawing heavily from favorite characters and environments from digital games and television shows.
- *Ian* had recently finished his kindergarten year. In his storytelling, he used a somewhat literal structure, spending a lot of time making connections from story elements to real life experience and explaining these connections in detail.
- *Jamie* was outgoing and was quick to join in during group activities. In games with rules, he enjoyed subverting meanings, often with wordplay and exploration of

the limits of rules. In general, he seemed to greatly enjoy having an audience and would say and act out the things he seemed to think would create or maintain their interest.

- *Katarina* was vividly creative and had many ideas to share, but appeared to have a reputation with the classroom teachers as someone who strongly prefers to set the tone and theme of play experiences. When she didn't feel able to do this or was explicitly required to share ownership of the play experience, she had a tendency to act out or disrupt other students.
- *Mike* played strongly off of his peers. While he was an active contributor, he appeared to feel more comfortable making connections between existing ideas or taking them in new directions than in 'writing to a blank page'.
- *Polly* had a rich vocabulary and knowledge of many story elements and themes. While she had many ideas to share, she needed time for internal reflection and warm up before she started to seem comfortable openly sharing and participating.
- *Steven* was playful and imaginative, frequently telling stories on the playground using and combining elements of favorite stories with new creations. In the classroom environment, however, he was much more reserved and less likely to engage. As a result, it appeared that teachers sometimes found difficulty in encouraging him to participate. This led to some conflict, as he was strong-willed in participating on his own terms and tended to withdraw when he seemed to feel pressured into a direction.
- *Susan* found interesting and abstract meanings when she told stories, but seemed to back off and defer to others to take the lead in the play group.

- *Vicki* had many interesting ideas to share, often from a differing perspective to many of her peers, but she was also introverted in group settings and seemed to need extra time for reflection before she felt comfortable contributing. In particular, she seemed likely to allow others to take control when she was put on the spot.
- *Zoe* enjoyed exploring the rules and limitations of the game environment as well as what her stories mean to others in terms of the social interaction. She was highly aware of ownership of ideas, however, and had strong reservations in terms of sharing the story space, particularly when one of her ideas or creations was extended or modified.

Game Sessions

Loss of Ownership and Shared Culture (Donna 1)

Participants: Donna, Harriet, Barbara, Ben, Ian, Steven, Susan, Vicki

For her first round running the game, Donna—the teacher who viewed play as important to social development and games as useful for teaching rule following—chose to use a single die passed around the table with pairs of students collaborating to tell a story about the topic “summer”. While Donna encouraged the students that “It doesn’t have to be true. You can just make it up.”, the students stayed focused on real world based experiences, likely because the topic was tied to the current season of the year, possibly inhibiting interest or immediacy of telling imagined stories about the topic. Additionally, with the constraint of one die per pair of students, much of the narrative took the form of one student declaring what the icon made them think about summer and the other following suit with no attempt at connecting the two experiences into a collaborative whole as intended. With the combined limitations of single topic and single icon to work from,

it likely would have required more direct encouragement and scaffolding from Donna or Harriet to bring the students toward making connections in their narratives.

This game session contained two sets of interactions that highlight important issues for facilitating a shared creative experience in the classroom. When Stephen's turn came, a line was crossed between helping him with his story to steamrolling him such that his ownership in the game space was compromised:

[Stephen has just rolled an arrow]

Harriet: *gasp* An Arrow! Oh my goodness.

Donna: That's a tough one.

Harriet: That IS a tough one.

Donna: Do you want that one, or do you want to roll again? What do you think?

Ian: Roll again.

Vicki: What's an arrow?

Donna: An arrow?

Ian: I think it's an arrow through a heart.

Donna: Well, sometimes I do see an arrow like that on a heart. *[To Steven]* Do you see that arrow? Do you see an arrow on a heart like that sometimes on Valentine's Day? I think that Is that what you were kind of thinking about, Ian?

Ian: Yeah

Donna: And sometimes there's something called a bow and arrow.

Steven: Yeah, I know

Donna: That sometimes you can put an arrow in and .. and you pull back and...

Ben: Oh yeah

Steven: I've done...

[Crosstalk within the group]

Susan: And you shoot it!

Barbara: Indians used to do it.

Donna: So that could be your story. You could say you shot an arrow.

Steven: Mmm uh uh.

Donna: So Steven's story is that he did that before.

Vicki: He shot an arrow.

Donna: And what are you going to tell? What's your story with it? How can you add on?

Harriet: And because Steven knew how to shoot an arrow, I said Steven, please teach me how to shoot a bow and arrow!

Donna: That's a great story... Okay now your turn to work together.

Here we see that Steven essentially was told what his story would be and the game moved along without him having much in the way of input at all. While it is unlikely that this was intended negatively, it seems that previous classroom experiences where Steven had been reticent in group activities resulted in a scenario where what was intended to be a push along left him outside the game space. This is something that should be carefully monitored by any teacher facilitating a game space. In this case, it turned out that as the round progressed, a real opportunity for Steven to share and connect with his classmates was lost:

Harriet: *[whispered]* ...that was a made up story. That's called fiction.

Steven: *[whispered - unintelligible]*

Harriet: *[whispered]* ...you got to do a bow and arrow before, Steven? You got to do a bow and arrow before? That's so cool - I've never got to do that before. So my story was made up, but maybe I should do that sometime. That would be cool... Does your brother know how to do that? He does too? Wow...

Where there had been an opportunity for Steven to share something about himself,

he was instead given a fictionalized account of his real experiences. In later rounds of the game that day, Steven became more withdrawn and it is entirely plausible that this experience played a contributing role.

Another interesting interaction occurred later in the round. During Ben's turn, he seemed disappointed and somewhat frustrated with the result of his die roll and apprehensive about telling a story, saying "Okay. I'm kind of... I think I'm kind of scared." Donna suggested that he reroll the dice and the following interaction and sharp change of tone at the table followed:

[Ben rolls the light bulb]

Vicki: Light?

Donna: Light bulb.

Ben: *[excitedly]* Oh! Oh like—

Barbara: Oh, that's like—like where you say "Light Bulb!" That's what it says, "idea". So it's like an idea thing.

Donna: Yeah, did you hear—

Ben: Yeah, I seen that movie and I really really want to use it!

Most of the Kids: Light Bulb!

Donna seemed surprised by the sudden activity around the table around the light bulb topic, and this highlights an issues for teachers to be mindful of when facilitating a storytelling experience. In this case, she was unaware that most of the students were making a reference to the movie *Despicable Me*. While it is never possible to know all of the shared cultural and media aspects that might be used in a group, it is important to be aware that this might happen and it might be useful if it isn't understood to take a moment to let the students have a time for connecting with their teacher by asking them to explain the shared reference.

Patience, Ownership and Losing the Fun (Donna 2)

Participants: Donna, Harriet, Barbara, Ben, Ian, Steven, Susan, Vicki

In her second round of *Story Cubes*, Donna varied the game rules by asking each student in turn to tell a story using two cubes, this time on the topic of Christmas. The students in general seemed to find it easier during this round to make connections between two icons than they had to connect and extend a partner's narrative about the same icon in the previous round. One issue of best practice was highlighted in this round, however. In shared creative experiences, participants will generally have different comfort levels and approaches to sharing with the group. When facilitating these kinds of activities, it is important for teachers to organize the experience to plan for students to have the time necessary to collect their thoughts. In addition, they will often need to balance allowing other students to help or contribute during a turn to protect the active player's ownership within the game.

For example, in this round Ian and Barbara seemed comfortable sharing with the group and were able to tell their stories with little interference. The other four students appeared to have different experiences. Susan was at first unsure of how to connect the clock and magnifying glass icons. Ian was asked to help and "give her a little hint". Instead of this being an invitation to help by offering suggestions or by collaborating as intended, it played out as Ian ghost writing a story for Susan without her input.

At this point, Steven, who had been visibly withdrawn from the game since his experience in the previous round had his next turn to tell a story. After briefly hesitating, he was offered a "count to three" to start or to be removed from the table. Under pressure, Steven volunteered that the monster icon could be a zombie. When Susan and Ben were amused by this idea, especially in the context of a story taking place at Christmas, Steven seemed to regain some interest, but again the story was taken over and told by

his teachers and peers rather than by Steven.

Vicki seemed to have become more comfortable with the game in this round, but there was again a rapid attempt to jump in and “help” her by the teachers and other students. In the end, Vicki was able to tell her story about watching a turtle on the beach during a Christmas trip and seeing a shooting star (an interesting and creative use of the arrow icon), but she had to push to be heard through crosstalk at the table. Donna assisted in this by repeating the story that Vicki was telling and giving it volume at the table. In addition, it likely would have been helpful for Donna to remind the other children at the table that it was Vicki’s turn in order to respect her ownership in the game space.

By this point in the round, frustration amongst the students was becoming visible and a sequence of events transpired that would lead to a strategy pivot in Donna’s later game rounds. Ben again seemed a little tense about the hand icon, saying that “That’s not... that’s not easy” and stopped to think. After a brief pause, Donna told Ben to “tell your story, or I’m going to put them away”. Though Donna seemed surprised by it, Ben naturally lost interest in the story he was trying to tell and offered “Okay. Um. I’ll put them away”. At this point, almost as if cued, the kids around the table were distracted by laughter from another game group that Rose was running across the room and turned to listen to the stories being told by that group. While Donna was visibly frustrated by this, she also seemed to take note of what was happening, which would change her approach in future game rounds.

An important lesson for practitioners from this round would seem to be that, while there is often a temptation to let the students who are quick to participate lead, this approach is problematic in a collaborative activity. While it may be helpful in some cases to allow students to help one another in brainstorming, it is also important to allow the active player the time needed to reflect and to help them preserve their place and ownership in the game space. It is also understandable that, in the environment of the

classroom where time is a limited resource, that there is an instructional desire to keep the game actively moving. Rather than adding pressure to contribute quickly, it is likely more helpful and less demotivating to the player to alter the organizational structure of the game to allow more time to reflect without pausing game play, for example by allowing the students to have their story cube at the beginning of the round and ordering players in a way that allows those that need more time to think to go later in the round.

Scaffolding and Flexibility (Rose 1)

Participants: Rose, Jamie, Katarina, Mike, Polly, Zoe

Like Donna, Rose—the education and psychology teacher student who focused on relationship building—chose to begin by using a single die passed around the table with a theme: taking a vacation. Unlike in Donna's group, each student told their own story relating to the icon rolled. As with the other group in the classroom, however, the stories stayed closely tied to real world experiences, even with Rose's encouragement that "You can make it up, it can be the truth, it can be something you did, maybe you've seen before".

Rose also chose to use this first round to scaffold concepts and teach the game. For example, when Mike rolled a building and told about visiting the state capitol with his grandparents, Rose asked "How is it like the picture on your cube?", prompting him to compare the height of the building pictured and the number of windows. Later, after Zoe rolled a picture of the world and told a story about visiting her grandparents and playing with their dog, Rose acknowledged her story but prompted "How is that—there's a picture of the world on there. So how does your story connect to the picture of the world?" With some discussion, Zoe added that they were on a vacation in the city and that the city is a place in the world. While this was a tenuous connection to the icon, it was also an opportunity for Rose to guide her through the process of telling stories

connected to the imagery on the story cubes. Rose additionally introduced the idea of connection between stories when Polly rolled an apple and told about picking apples on a trip to China and Rose pointed out that this is also a place in the world.

As a teacher, it's also important to understand the classroom goal for using a story-telling game. In Rose's case, she looked at the game as a way to get the students making and explaining connections with their stories, so the theme was a tool to focus them, but the stories being fixed to the theme was a less important concern to her. An example can be seen at the end of the round when Jamie rolled a flashlight and was disappointed with the result:

[Jamie rolls the light bulb]

Jamie: NOOOO... Boring!

Rose: Well, this is the one that you got...do you want to tell us a story—What is that?

Jamie: A flashlight.

Rose: Flashlight?

Jamie: One time, this time it was... it was flooded. My house didn't have no light and then I used a flashlight and then I went to a different house.

Rose: Ohhhh.

Katarina: To my house. Maybe you could come to my house.

Jamie: I didn't...

Rose: That was a good idea. Use a flashlight.

Jamie: And my daddy, he wasn't there.

Rose: He wasn't?

Jamie: Nope.

Here, Jamie seemed dissatisfied by the result of the roll but Rose pushed for him to go ahead and work with it anyway, which met her objective for them to make connections

with the images from the story cubes. Though the story didn't use the original theme of vacations, it was told well and made a connection to the image.

Experimentation and Shared Fun (Rose 2)

Participants: Rose, Jamie, Katarina, Mike, Polly, Zoe

After the warmup round, Rose decided to run an extended multi-round game with the goal of creating a longer shared story. To focus the students toward her approach, she started the story with the familiar phrase "Once upon a time..." and gave them a template for a turn in the game:

[Rose has previously rolled the parachute]

Rose: I'm going to roll and tell a story about something. Then you have to connect the story so our whole story will be all connected. It'll be like a movie. So I'll say, "Once upon a time..." and you'll say "and then...". So let's use—let's tell a story about a boy named John. John jumped out of a parachute *and then...* Roll to see what you should talk about.

The round began with some interesting multiple use of the 8-way arrow icon. Because a single cube was used, there was a high likelihood of rolling the same icons multiple times, which had led to minor frustration among the players. In this case however, Katarina used the icon to represent a snowflake and Zoe later used it to mean "everywhere" and decided that would mean that the snow would become a blizzard. Narrative connections between the players' contributions were also prominent. Polly rolled the frown icon after the blizzard was added to the story and decided that this meant that John must be sad because flowers that he had planted during Mikes turn, using the flower icon, had been killed by the blizzard.

After the part of the story in which the flowers were killed, the students began to explore darker fairy tale themes in their storytelling. For example, later in the game when

John was having trouble with a bear, Polly escalated the situation dramatically:

[Polly rolls fire]

Polly: Fire came.

Rose: Fire came where?

Polly: Fire came on the bear.

Rose: How did the bear catch on fire?

Polly: Because the city—there was *everywhere* on fire. The city got burned by a fire.

Rose: What started the fire?

Polly: Um. There was fire guns everywhere and they fired the city.

The other students were at first surprised by this change of events but after a pause began to laugh. At this point, they seemed to have a bit of a friendly competition to see what they could add that would surprise or amuse their friends. Katarina added a skeleton beetle that captured John and locked him away with the mean bear, who had escaped the fire previously. Mike followed up by adding a monster that had come to eat John's baby because "he didn't like it". Zoe used the key icon to have the skeleton give John a "skeleton key" to open up a door in the monster and rescue his baby, leading to laughter from the rest of the table.

By this point, all of the children were adding in gestures, voices and sounds to their story in a shared continuing manner. It was also clear at this point that the kids were having a considerable amount of fun with the game. At this point, the excitement and laughter at the table drew the attention of players at another table in the classroom (Donna 2).

Rose adapted well to the shift in tone and speed in the storytelling, stepping back from guiding the story to focus on asking for clarifications and on keeping the turn order intact when necessary. From this point, the story began to become more chaotic, but largely

because the children were rapidly adding more and more elements while trying to connect all of the things that had happened previously. In later conversation, Rose indicated that she'd considered guiding them toward a conclusion, but decided that they were making so many connections while having fun with the experience that it was a better choice to not worry about conclusions at that point if the students weren't concerned about it.

Through this part of the game, Katarina began to interrupt other students' stories. This started by her protesting the flowers dying during Polly's turn and escalated as she tried to push into Jamie's turn. Rose intervened at this point to remind her that it's Jamie's turn to tell the story and that if she kept continuing to take away other students' turns, she might have to leave the game. During her next turn when Katarina was calmer, Rose brought Katarina back into the game with a little extra time to elaborate and to have the stage before moving on to the next turn. At the moment, this interaction about turn taking had seemed typical of the tensions that sometimes rise about respecting turn taking rules by younger children. During the post-session interview, however, Rose added valuable context to this interaction, indicating that the experience was working better for Katarina than it had first appeared:

Rose: I thought it was amazing that one of the students who's very energetic and maybe doesn't have as many social skills as others really showed their social skills being patient.

Jeremy: Which one would you say that was?

Rose: Katarina. I mean, Katarina has a hard time...

Jeremy: Oh? Really?

Rose: I mean, like, Katarina has a hard time taking turns and being patient.

Jeremy: Oh? She was really—

Rose: It was *amazing*, right? Yeah! So that was one thing I really took off that.

Jeremy: Because I would not have caught that. [*And in fact, I hadn't caught that,*

as brief difficulty she had with turn taking hadn't seemed out of the norm during game play]

Rose: No, because she has a really hard time. She always wants it to be her way and so letting her friend tell the story when she already has an idea, I feel that was awesome for her to have that chance.

In asking the other teachers in the classroom more about this, it appears that in the game experience, Katarina was able to find ways to more evenly share the play activity with her peers. It is not entirely clear what the difference was, but two potential factors could have contributed. First, it is possible that the structure of a game with rules rather than the free play environment that classroom storytelling often occurs in provided Katarina with more cues about rules for interaction. Another possibility is that while many of the classroom free play stories were constructed around tangible objects that need to be physically shared, the elements in the story were entirely imagined and potentially easier for Katarina to share with her peers. Both questions would be interesting topics for further inquiry.

Releasing Control and Sharing the Story (Donna 3)

Participants: Donna, Harriet, Barbara, Ben, Ian, Steven, Susan, Vicki

After watching the experiences in Rose's group, Donna began another round of the game using similar rules, where each student used their roll to add onto a continuing story. This was the first time that Donna used a rule set that afforded an interactive and continuing player-to-player narrative and this seemed to result in the students becoming much more invested in the game.

Interestingly, the depth of the connections made by the students also increased at this point. Donna's started the story by using the frown icon to determine that she was really worried and Ben used the teepee to add that the worry was because of sleeping alone in

the tent. Barbara then added that it was also because she didn't know what was outside the tent as her use of the question mark icon. As the round continued, Steven, Vicki, and Susan made strong connections into the shared story, often building upon previous elements but with much less hesitation or apprehension than in earlier rounds.

Letting go of some of the control in comparison to earlier rounds appeared to make for a more fun and engaging experience for the students, and the level of connections and narrative contributed reflected this. Two issues did appear in this round, however, that inform practitioners facilitating similar experiences. Donna started the story in terms of "I", and the students followed suit, leaving them slightly confused at a couple of points about which "I" the story was about. It might have been clearer to have created an outside character to tell the story about, such as John, the character created by Rose and her students.

Another issue that came up was a result of using a single cube that was passed around the table. With eight participants sharing six options randomly rolled, there were many repeats that began to frustrate both Donna and the students. At the end of the round, I intervened, suggesting that giving each player a different cube would help to solve this problem and Donna agreed, though she insisted that the players not get their cube until the beginning of their turn out of concern that it could be a distraction.

A High Speed Story (Donna 4)

Participants: Donna, Harriet, Barbara, Ben, Ian, Steven, Susan, Vicki

The last round for Donna's group was a brief game played once around the table using the same continuing story form as the previous round, altered by giving each student a different cube to prevent repeated icons. Even with the faster pace and being somewhat rushed along, all of the students were able to contribute, though there was a small problem preserving Vicki's ownership at the table when she hesitated to figure out whether the

icon should be used as a walkie talkie or a telephone. This round resulted in a story that was predominantly "...and then..." narrative construction without many connections to previous elements, but this is a natural default mode and likely to occur when students are pressed for time.

The Children Collaborate and The Monster Dies (Amy 1)

Participants: Amy, Harriet, Barbara, Steven, Vicki, Zoe

Amy—a teacher who described games as a way to provide different learning opportunities to her students—chose to approach the game by creating a continuing story around the table with one cube per student and beginning with "Once upon a time..." Zoe, possibly influenced by a previous game (Rose 2) started off by introducing a monster "who liked to eat little children!" Steven followed in with a nice "...because..." narrative using the frowning face icon to describe that this monster was making a child sad because he liked to watch movies, but didn't get to because the monster was bothering him. Vicki used the phone icon to make the child call for help and Barbara added, using the tree icon that a monster trapper was called but was turned into a tree by an evil fairy. This story moved along quickly, and the students made a several strong relational narrative connections in their contributions. Amy complimented their creation by commenting how dramatic their story was and the students appeared to be having fun with the game and were ready to continue the story into another round.

The second round continued the story of the boy and the monster to a conclusion which seemed to surprise Amy. When it came to the concluding turn of the round, Barbara rolled the building icon and chose to turn it into a building sized monster-proof trap to crush and kill the monster. Amy seemed unsure about this resolution and in later conversation indicated that this was because the classroom environment typically doesn't involve stories expressing this kind of conflict. This resolution clearly represents

the common themes and tropes of fairy tale children's stories, however, and when Barbara was given the chance to repeat her part of the story she altered it to escalate the situation and make certain the fate of the monster while concluding with a fun subversion of a classic fairy tale ending:

Barbara: The boy safely escaped into a building and then the monster came over and bit the top but instead of biting it off, he was tricked. It was—it was poisoned—monster poisoned and he died. The monster *never* came back again and the boy lived *safely* ever after.

Zoe and Steven had a minor ownership conflict in the second round. Zoe used the drama masks icon to introduce an element of two faces looking up from the ground which Steven later turned into two faces drawn on the ground with an arrow. Zoe pushed back to reinforce that these faces were *real* faces several times. Amy didn't appear to notice this conflict, but the pair did well resolving the conflict between themselves by allowing the arrow to have been used to draw faces that later became real.

Throughout the round, Amy reiterated the story to the current point, providing a good focus for the players to remember all of the elements that had happened previously. Handling the issue of hesitation from students was improved from earlier game rounds as well, but there was still an issue of balance to consider. During her turn, Vicki was having some trouble with using the telephone icon. Steven and Zoe jumped in to give suggestions about how she could use it. Amy offered to Vicki to let her add to the story later in the round, giving her more time to think, but she was also pushed to pick from the suggestions made by Steven and Zoe. She made a choice and play continued, but this was another example of having difficulty working around Vicki's quietness and hesitation at the game table. It may be that she hadn't had enough of a chance to warm up to the activity, or that she would have an easier time if she had her cube earlier so she would have more time to think about it. Both strategies would have been worth trying in this

scenario. Another important issue to consider is consistency. In the next turn, Barbara rolled the ID card icon. She had difficulty with this, but instead of being pressured to take the suggestions of other players at the table as Vicki was, she was offered the opportunity to re-roll her cube. Children of this age are strongly aware of issues of fairness and this kind of differing treatment should be avoided when possible.

Exploring the Game and Creating Artifacts (Amy 2)

Participants: Amy, Barbara, Steven, Vicki, Zoe

Amy's second game largely followed the form of her first, using one die per player and continued storytelling around the table. The students appeared to have become more comfortable with the dynamics of the game as well, noticing the problem with repetitions and suggesting to Amy that they want to make sure to have different dice for this round. The idea of favorite cubes also appeared during this round. For example, Zoe excitedly asked for one with a face containing what she interpreted as a "fairy wand".

With the more relaxed atmosphere, the students were able to explore the affordances of the dice in more detail. In one instance, the blank speech bubble is rolled and there was brief discussion about how it could be used to represent what someone says, what they're thinking about, or as it was used in the story, a magic word that makes ideas become real. Another discussion was about the earth icon and how it could also be used to represent a pool of bubbling lava.

One conflict in this round reflected a need to honor contributions that are difficult for the student. Steven used the fountain icon to make the monster sick. This was a good example of "...because..." narrative connection, and he was excited to have contributed this detail. The reason that the monster became sick (drinking dirty water) wasn't included in Amy's retelling of the story, however, and this clearly bothered Steven, who made sure to reinforce the reason until it was acknowledged later in the round. An

important take-home for practitioners who facilitate storytelling games is to be mindfully aware of the parts of the contribution that are highly valued by the students and to ensure that those valued parts are acknowledged, particularly when students are trying to stretch their limits.

Amy finished the round with an activity to draw something in their classroom notebooks based on either of the stories they told. She left the activity open for interpretation by the students, allowing them to just draw a single piece or two, as Steven chose or to write out parts of the story along with the picture as Barbara chose (Figure 3). Notably, most of the students chose to draw their pictures closely based on the cube icons rather than more imaginatively. It would be interesting to see if would still be the case if the activity were repeated multiple times or if there were explicit encouragement to draw other details.

Favorite Cubes and a Teachable Moment (Clara 1)

Participants: Clara, Jamie, Katarina, Mike, Polly

Clara—a teacher expressing passion for helping children to grow through exposure to new experiences—chose to use an around the table extended story approach to running the game, pre-planning a few ways that she wanted to try starting. For this game, Clara chose her first option, beginning the story with “Once Upon a Time...” The students were eager to begin and, like Amy’s group, had now played the game enough to feel familiar with the basic structure. Also like their peers, they had begun to show preferences for favorite icons, with Jamie asking “Where’s the Monster?!” and Katarina looking for the sheep.

Familiarity with the icons and game also led to some new experiments in the storytelling. Katarina rolled the question mark and decided it could be a question about something, maybe a treasure. Her contribution was that there would be some sort of

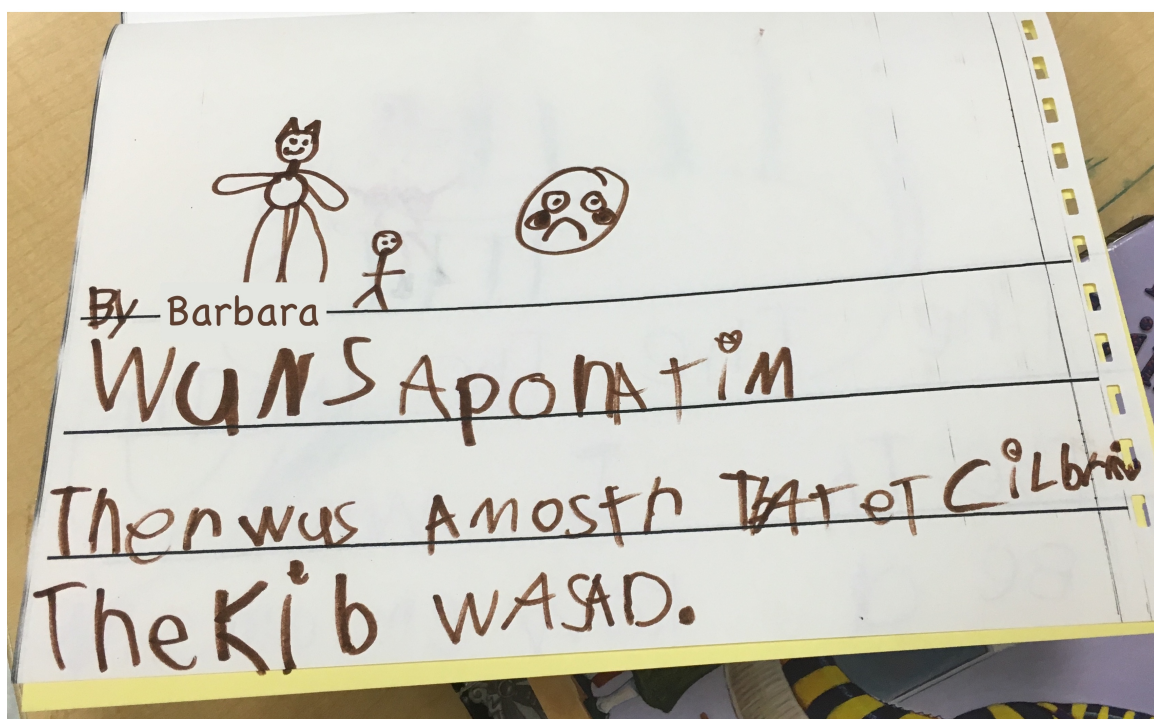
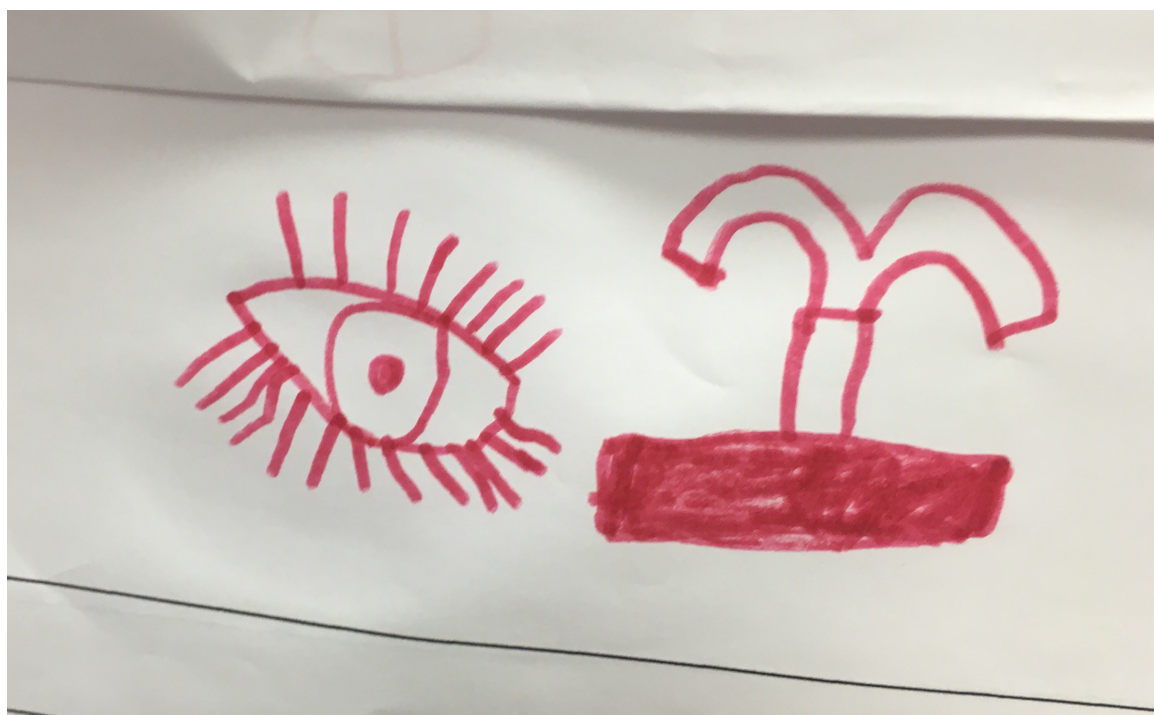


Figure 3: Pictures drawn by Steven (top) and Barbara (bottom) to illustrate their story.

note describing where a treasure would be. Mike chose to play with ways to emphasize magnitude in the game when a building fell down on a house, clarifying that not only did a building break, it broke into “one million thousand googol pieces!”. The notion of extreme size and numbers appeared in other places in the students’ stories as a convention for emphasizing the importance of a story element. The students were also clearly having fun in the game experience, with Polly laughing and exclaiming at the end of the first time around the table, “Now let’s do it again! I want to tell the sequel!” showing her knowledge of narrative ordering while delivering what many game designers consider the highest praise possible.

One potential teachable moment that was missed in this round involved the notion of favorite cubes. Several of the children, but particularly Jamie, were focused on finding and adding the cube with the monster icon. In the design of this research, it was a deliberate choice to stick to the original more generic set of cubes, but this desire by the students made that decision briefly seem questionable. It is possible that the relatively small number of identifiable characters on the cubes might have created an unwanted seductive detail. Upon further reflection, however, this could also be used as an opportunity to show the students how to use the cube in a secondary way, such as demonstrating how you could use the bridge icon as a home for a monster like a troll and introducing the ideas to the story in that fashion.

Keeping Control and Exploring Darkness (Clara 2)

Participants: Clara, Harriet, Jamie, Katarina, Mike, Polly

Because the first game had gone well, Clara decided to use the same format as the first, starting with “One day...” and with the addition of her third planned idea of letting the children hold onto their own dice during the entire round.

During this game, the students were experimental and creative in their use of the icons

and their storytelling flowed evenly. At one point, a conflict between Jamie and Katarina about a detail in the story threatened to derail the game, with Clara reaching the point of saying “Stop! This is a fun activity but...” which can be seen as a strong indicator that the fun of the game was at serious risk of collapse. While flustered, Clara held her composure and was able to bring things back together by reminding the table that “each of us can have our own parts and we can have our own ideas” and reinforcing the basic rule that “whoever is rolling their dice is the only person that should be talking”.

While conflict at the table calmed at this point, the story itself certainly did not. As had been seen in previous games (Rose 2, Amy 1), fairy tale style dark themes emerged again, with blood, fire, and poisonous candy canes appearing along the way in their story about fighting a monster. Jamie discovered for himself the notion of secondary usage by introducing this monster via the beetle icon as a “zombie beetle” which Polly finished off such that he was dead *FOREVER*.

In many cases, it was clear the students were watching Clara’s reactions as they escalated the story and subverted norms while creating this dark fairy tale. The students also frequently tied in their own experiences and familiar ideas into the story such as when Mike blended part of the story with a classic preschool song:

Mike: The boy was sleeping on a roof and fell down and blood come out everywhere from his head, yeah.... and then knees. and then [*singing*] head, shoulders, knees, and toes, knees and toes.

Speaking with Clara later, she understood that at this age, stories and play are one of the ways that children explore and work through dark or scary ideas in safe ways and she felt that her role should focus on preventing and resolving real conflicts between the players rather than guiding conflicts in the story.

Remembering the Story (Clara 3)

Participants: Clara, Harriet, Jamie, Katarina, Mike, Polly

For the third game, Clara kept the same form as the second game with the additional change of lining the cubes up after each student had their turn and covering them to see if they could remember the flow of their story. This experiment worked reasonably well—the engagement and tone of the story stayed consistent with previous rounds and though there was slightly less connectivity between each student compared to previous rounds, this is unsurprising considering the cubes were not visible and the story wasn't being reiterated by Clara along the way to refresh prior details. The students were all able to recall the story comfortably, though each added a few “second draft” details.

Recognizing Fatigue and Drawing the Story (Clara 4)

Participants: Clara, Harriet, Jamie, Katarina, Mike, Polly

For her final game, Clara followed the same form of her second round, restoring the ability of the students to see the dice, but lining them up on the table so they could draw their stories on paper at the end of the game. By the end of this round, the students were clearly becoming somewhat fatigued with playing the game, which had now approached a half hour total. Accordingly, there were more minor conflicts at the table and the overall strength of the created narratives. The students weren't all ready to finish, with Katarina asking “Could we do it again? Could we do it again?!”, but it was clear from other students that it was becoming time to wrap up. As with the other group who drew pictures of their stories (Amy 2), there was a strong focus on the iconography of the cubes rather than the narrative descriptions they added to them.

Post Game Reflections

After each set of game sessions, students and teachers were asked to share their thoughts on the experience. Because each session lasted approximately 30 minutes, the students were beginning to tire of being at the tables so they were interviewed briefly as a group. The teachers were interviewed individually afterward after the students moved on to outdoor activities.

Students

The students were first asked about the kinds of games they usually play and about *Story Cubes*. Unsurprisingly, the students mostly played the expected childhood classics, such as *Checkers*, *Candy Land*, *Chutes and Ladders*, *UNO*, and *Sorry*). Interestingly, a couple of students also mentioned puzzles in the same category of games. Game designers and researchers don't typically consider these as the same type of activity, but it is important for them to note that their audience may feel differently.

When discussing *Story Cubes*, students found it to be a lot of fun but also "weird" to play a game where there isn't a winner and everyone builds something together. A favorite part of playing was connecting their ideas to their friends' stories and playing with what was "true or not true or just silly". Most agreed that they liked making up the story of the game in comparison to other games where the story is given, and several students said that their favorite part of the stories they made was the experience of making them. Polly particularly enjoyed the pictures that her group drew at the end of a game and thought it would be fun to connect them all into a big long story, describing *Story Cubes* as being like "legos for stories".

The students also had a great deal to say when asked what they might change about the game and what they would do the next time they played. Some ideas for altering the

game included:

- Using two dice per turn to have more things to work with.
- Playing smaller games as partners so they could get more turns per story.
- Limiting the number of words a player could use each turn.
- Letting each player build stories with the same cubes and then share them to see the differences in the stories they made.
- Playing the game outdoors and connecting their stories to the nature classroom.

Teachers

There was considerable variation in how the teachers felt that the game experience would play out in the classroom. The senior teachers, Harriet and Jack, generally were unconcerned about the game having problems in the classroom and gave the impression that even if the game wasn't successful in terms of storytelling, the kids would likely find it fun to try a new kind of activity in the classroom. There was a nearly even split among the teacher students, however, with some unconcerned and others wondering whether the students would be able to interpret the symbols on the story cubes, let alone to tie them together into stories, especially when collaborating with other children. Amy was in particular concerned that the children were too young for such a game and Rose added that she thought there might not be enough room for students to make choices leading to boredom.

After the game sessions, the teachers all seemed to be strongly convinced that storytelling games could have value in their classrooms. Harriet found it interesting that Amy, Clara, and their students had come to the decision that drawing or writing the stories as part of the process was a good idea, recognizing this as similar to Paley's storytelling

curriculum. Amy said that the experience was a lot of fun and had good results, but expressed concerns that she was unsure how to evaluate learning with a game. Donna found the game unique, saying “It’s a lot different than any other game I’ve played before” and that she’d like more information about how to use games like this in the classroom. Clara had quite a bit to say about the game. She was glad that she had prepared ideas to use at the table ahead of time but was surprised about how quickly they moved through her list of ideas:

Clara: [I was] surprised because, you know, I felt like I was kind of testing to see if the eight dice would even work but they really enjoyed it so the next time we went through I did the eight dice again, but I had them hold two dice in their hand so each time I felt like they had more responsibility and then finally the last few times I had them start the story so I didn’t even have any participation in the story really.

Rose had been particularly concerned about boredom and making connections but was excited afterward at how well the children took to the game. She wanted to experiment with the game by trying it in the outdoor classroom and was impressed in the weeks after the game sessions that when some of the children saw the *Story Cubes* box on the shelf, they’d comment to her “Oh, that was so fun!”, wanting to play it again.

Games in the Classroom

The teachers had clear opinions about the use of games and play in the classroom, particularly in terms of finding balance. Harriet pointed out that teachers who use games should be careful to avoid behaviors that students might consider unfair as well as to be ready for the flexible interpretations of rules that often appear in early childhood learners. It is important to understand that games are easy for children to find or make, and that the teacher’s role is in guiding what kinds of things they might discover when playing a

game. Jack was positive about the cooperative nature of *Story Cubes*, pointing out that it's important to prevent competition in a game experience from creating non-cooperative environments in the rest of the classroom culture.

Amy and Clara found games to be a valuable way of encouraging interest and engagement for students. Amy saw this in terms of games being “just another way to play”, while Clara saw specific value in games as a way to understand student knowledge and progress while they play. Rose was surprised by how much room to teach social skills and interactions was provided by the game experience. She was still cautious about their use, however and highlighted that she wouldn't want games or play to be the only form of teaching in the classroom. Donna had a different perspective, viewing play as a tool for facilitating social development but games as a way to teach rule following and that fun in the classroom should be bound by rules and expectations that establish the environment.

Using Story Cubes in the Classroom

The teachers also had many thoughts about how they would integrate the games into their own classrooms and what kinds of modifications they might make going forward. Harriet would try to work toward creating artifacts by writing down or otherwise documenting the students stories to revisit later on. While understanding the bounds of the current research, she also indicated that she would like to add more time for the students to acclimate to the game and unfamiliar icons to transition them into the creative process.

Amy, Rose, and Clara discussed the role of adding custom cubes with new pictures to the game. Rose was specifically interested in how these custom cubes could be used to get students to discuss ideas introduced in other parts of the students' day. Donna took a more evaluative approach to how she would use the game, indicating that it could make a useful prompt for writing as students are prepared for testing in their elementary school years and that it could be used to teach direction following. She also expressed

concern for how loud the game could get and wanted to explore ways to keep it quieter while focusing on continuing stories (an issue that complicated her earlier uses of *Story Cubes*).

In terms of varying the game, Amy speculated that rolling all nine cubes in the middle of the table might help some of the students by allowing them more choices in the game. Rose wanted to explore whether lining up the cubes to create a running record of the story might help the students see the story structure as it unfolded. Clara was less concerned with finding ways to vary the game and focused on how to make it more acceptable to play this kind of game in the classroom and how to integrate it into existing activities.

Amy, Rose, and Clara also wanted to explore the social nature of using *Story Cubes* in the classroom. Clara suggested that integrating it into manipulative or free choice stations in the classroom could make it always available for students to explore and experiment and that it might be a useful tool for teachers to use when resolving social conflicts in the classroom. Amy also saw value in the social interactions and connections emerging in the game and wanted to get more specific feedback from students about how they would like to use the game. Rose recalled how impressed she was about the improved way that Katarina approached a social activity in her game sessions and expressed interest in using it with other children with similar classroom concerns.

Narrative in Preschool

Each of the teachers came out of the experience with noticeably different views toward the role and value of narrative creation in the classroom, both compared to their colleagues and compared with their views at the beginning of the experience. Donna viewed narrative as limited in scope to younger students, saying “narrative is kind of the same thing [as dramatic play]. I feel like it’s important up until kindergarten and after that I don’t think it is really necessary.” She did find the process interesting, however, acknowledging that

the students liked the game and that she thought it forced them to be creative and think up ideas for the themes she gave them.

Amy was also focused on the utility of narrative but took a different approach. Thinking about the difficulties that Vicki had in participating in group activities, she wondered if using smaller group or one-on-one play could provide an opportunity for her to use narrative creation to help her open up to other interactions with teachers and peers. Rose wanted to try narrative creation as a way to guide classroom explorations and connecting them together, giving the example, “We could say we’re doing a story right now about a termite, which we’re learning about termites right now. So maybe I could use that and work in more terminology”.

Clara’s focus was on the nature of narrative. She acknowledged that she had been uncertain about the ability for young learners to create narrative and expressed that the narrative created by this age group is strong but might not be seen the same way by people used to working with older children, saying “You know, from an outsider’s perspective who doesn’t have as much experience with kids, they probably wouldn’t consider it a narrative but, you know, from their perspective they’re creating stories. They’re thinking it out.”. This perspective was largely shared by Jack, who considers narrative and storytelling as a fundamental skill for young children:

Jack: Storytelling play helps children begin to understand that each person has a story to tell and there is value in sharing that story. In early childhood, it is key that *All* children feel listened to by their peers, teachers, caregivers, parents, and adults. As children develop empathy, it becomes easier to do that, but providing children with endless opportunities to see, taste, touch, feel, and hear stories presented in multiple ways is critically important to children’s development.

Desire for Methods Training

A common thread amongst the teachers was the expressed need for more methods training relating to using games in the classroom and running collaborative creative activities. All of the teachers agreed that there was a place for game and collaborative creation in the classroom but none had had any classroom experience that they felt helped them understand how to move forward. Clara was the most comfortable, but added “I kind of just figured it out. It was pretty easy for me because I grew up around all this stuff.” Donna found it problematic that she needed to learn these things at the practicum stage with no prior discussion in the classroom, adding that the process didn’t leave much time for reflection, saying “Yeah. Yeah. Learn on the go! Learn on the go - you got it!” Donna said that there had been some discussion of games in her training, but it didn’t include standalone games, instead focusing on folder games intended for tutoring and formative assessment.

In terms of whether this kind of training would be useful, Clara said “Yeah, I definitely think it would be a valuable thing to learn during teacher training because, you know, you see the game and you think ‘oh, that’s so fun!’ but then you don’t really think of, well, how could I use it in this area of my classroom? So I think training on how to apply it in the classroom would be really valuable.” Rose agreed that she’d like to know more but found it interesting to compare to the amount of time that classroom technology is discussed, saying “Well, like, you learn all this stuff about technology and how to use different things like that and just having one discussion in the class about these cool different games that you could use or make your own educational games. Something like that... Yeah, that would be useful.”

The senior teachers, Harriet and Jack agreed with the assessments of the teacher students. Jack indicated that in his experience, new teachers often learn how to run play,

game, and creative activities during their practicum time at the school, but expressed concern that preservice teachers at schools that don't provide that focus may not be getting that knowledge and training. Harriet agreed that this is an important gap and that integration of this kind of methods training would be very valuable for the education of teachers.

Emergent Themes

In order to search for themes representative of the lean codes assigned to the game play transcripts and interviews, a code cloud was constructed using handwritten notes and diagramming software. Individual codes were rearranged into clusters by similarity and divisions made between underlying concepts. From this process, three major thematic areas emerged: Play and Games, Classroom Practice, and Narrative Storytelling.

In consideration of my own positioning and lens, it is useful to consider the ways in which the game sessions and interviews did and did not match my expectations and preconceptions based on the literature review and my prior experiences. Based on prior work, it was unsurprising that teachers of young children view play and games differently and are more comfortable with the former than the latter. It was also my expectation that the teachers would be more positive in their view toward classroom games after the game play sessions. I was surprised, however, by the level of interest expressed in using this kind of game and in getting explicit methods training on the use of games in the classroom. During the game play sessions, I had expected that there would be some working through of ownership issues, but I would have predicted that this issue would emerge in terms of student-student interactions rather than between students and their teachers. In an attempt to avoid imposing the assumptions and dynamics of my own parenting practices and to acknowledge the practice of the preschool the research was conducted in, I also

had low expectations for character conflict in the stories being a major factor and certainly had not expected the presence or level of dark thematics that appeared in the student stories.

Play and Games

Listening to the teachers, it was found that *play is viewed favorably* in the classroom. All of the teachers understood play as a fundamental way that children explore the world around them and interact with ideas. Specifically, play was understood as an important way to create a *safe environment to explore*, both in the form of curated objects physically safe for children to use as well as in creating an open environment where children can be themselves and have their ideas heard.

It is also found that beyond a basic level, *games are not the norm* in many ways. There were certainly plenty of games and puzzles available in the classroom, but these were often reserved for free play time rather than viewed as a curricular tool for academic work. When games were considered academically, they were generally viewed as *skills practice*. Teachers mentioned that games could be used as a way to practice many skills including language, literacy, writing, math, and problem solving. In some cases, games were also viewed as valuable for teaching socialization, negotiation, following directions, and collaboration. For all of these areas, the value of games was viewed as a form of practice, but not as part of the teaching curriculum.

Teachers expressed *concern about games* and their role in the curriculum, often quick to point out that they do not think this should be the only form of teaching. The vast majority of games in education researchers would readily agree with this sentiment. One question about the usage of games in curriculum was “How do you know they’re learning?” This is an important question, but one best served by normal evaluative methods. Other common procedural concerns centered around classroom organization, with teachers won-

Summary of Themes

<i>Play and Games</i>	
Play is Viewed Favorably	"Play is the most effective way young children learn in all developmental areas"
Safe Environment to Explore	"In early childhood it is key that <i>all</i> children feel listened to by their peers, teachers, caregivers, parents and adults".
Games are <i>not</i> the Norm	"I don't really remember using games..."
Games are for Skill Practice	"I think it would be good for writing prompts"
Games Concern Teachers	"How do you know they're learning?"
Table Games are Modifiable	"I had the nice idea of blowing the Rory cubes idea up into like a foam one and adding more movement"
<i>Classroom Practice</i>	
Understanding Goals	By understanding ahead of time what their specific goals for the game were, Rose and Clara were easily able to model and scaffold expectations and avoid interrupting student flow.
Understanding Student Needs	When Steven added that "The water was dirty", this addition of a "...because..." element was important to him. When it went unacknowledged, his disengagement was clear.
Honoring Ownership	"...when you're talking during it it makes it really hard to focus on our story, Okay? So whoever is rolling their dice is the only person that should be talking."
Training is Needed	"You see the game and you think 'oh, that's so fun!' but then you don't really think of, well, how could I use it in this area of my classroom?"
<i>Narrative Storytelling</i>	
Rich Narrative from Children	"...from an outsider's perspective who doesn't have as much experience with kids, they probably wouldn't consider it a narrative but...from their perspective they're creating stories. They're thinking it out."
Levels of Narrative	"...and then..." (<i>base narrative</i>), "...with that..." (<i>connecting</i>), and "...because..." (<i>plot</i>) forms were observed in the stories.
Magnitude \Rightarrow Importance	"Fifty hundred thousand googol hundred pieces!"
Dark Themes	"And it opened and a candy cane and it opens the sleeping guys head and it was poisonous and poked her and then she was <i>dead</i> ".

dering how to properly encourage turn taking, rule following, and collaborative behavior during game experiences. It is notable that many of these concerns were reduced after the game play sessions, leading to the possibility that some of these concerns and their magnitude may be at least somewhat influenced by familiarity.

In terms of tabletop games, one important observation by the teachers was the notion that *tabletop games can be modified*. While it didn't come up much during this research, the teachers seemed to somewhat categorize children's games outside of the classics as primarily digital. In this context, most of the teachers were interested in the notion that games using cards, boards, dice, and printed rules can be more easily changed to meet classroom needs without assistance than software counterparts.

Classroom Practice

As the game play session progressed, important themes related to classroom practice became apparent. Like any other curricular element, when using games it is important to *understand classroom goals*. As seen in in Rose's group (Rose 2), her choice to focus on connection and continued narrative allowed her to easily decide that drawing the narrative to a conclusion could wait until another time and that it wasn't productive to interrupt the flow of her students. Clara went further, explicitly constructing a list of ideas she wanted to work with to provide a basic framework for the play session.

Clara's list along with the brief "icebreaker" rounds that she and Rose used also highlight the *importance of scaffolding*. Particularly in this age group, time on task is limited and organizing the activity to teach them as they go reduces time spent explaining the game and gets students directly into the activity. *Modeling for students* is also important, both in terms of learning the game as well as in understanding the overlying classroom goals and expectations.

A game space is a shared environment and while it is important for the students

to understand their teachers' classroom expectations, it is also vital that the teachers *understand student needs*. In the game play sessions, this was highlighted, amongst other things, by the difference in comfort level when creating narrative elements and sharing them with a group spontaneously. When highly open and engaged students are in the same game group as others who are more reserved or less confident about their contributions, the teacher facilitating the game will need to spend effort to *balance the game* such that all of the students are able to experience the activity.

A critical factor in achieving this balance and an essential concern when facilitating a shared creative activity is the importance of *honoring ownership*. In the case of *Rory's Story Cubes*, a teacher should always keep in mind that when they are listening to the turns of the game, these are not merely turns. The student player is creating an idea and these creations should be given the same respect that other creative products would get. A related issue is that when this activity is collaborative, the students place at the table may need to be preserved. When a student is quiet or hesitant, or when activity at the table becomes enthusiastic or fast paced, it may be easy for a player's turn to be overwhelmed by the contributions of other players at the table. It is also important to monitor when assistance from other students becomes other students taking over. In either case, the teacher facilitating the game needs to be mindful that this is a possibility and ready to respond if necessary to defend player ownership.

Relating to all of the above, the teachers universally felt that *training is needed* for methods related to using games in the classroom. While they were able to adapt, the practicum teachers all felt that they wanted more background knowledge about how to use games in the classroom and fit them to curricular goals. The senior teachers in the school agreed that this was a gap that is often resolved during practicum but that would be beneficial to incorporate into classroom teacher education.

Narrative Storytelling

In listening to the stories created by the students, it was clear that children at this age are more than capable of *generating rich narrative* derived from their experiences and the environment around them. As described by Clara, some of this richness may be missed by those approaching young children's narratives with the same expectations as they would the work of much older students.

Even within the natural context of their ages and experiences, the three primary constructs of narrative appeared. These *levels of narrative* are "...and then", "...with that...", and "...because..." in order of depth. When starting out, as well as when adding on becomes difficult, the students often relied heavily on the fundamental narrative aspect of "...and then...". These statements are the basic understanding that in a narrative, things happen one thing before the other and even confident storytellers may find themselves reverting back to this basic level at times when the connection between ideas is unclear. When telling stories becomes more comfortable, the children begin to add more "...with that..." narrative elements, riffing off of prior elements and experience, both from previous players and from familiar pop culture contexts. When the students become comfortable in the environment of the storytelling, "...because..." statements appear in the narratives, adding plot to the narrative and explaining why the connections formed are present.

Specific *features of the stories* created highlighted the ways that the students were exploring the game and narrative spaces. At this age, there are unsurprising gaps in the students' vocabulary, particularly when it comes to nuanced descriptive words. When these gaps pose a problem to the story, it did not seem to lead to a loss of words as might be expected of an older student. Instead, like Jamie's "fifty hundred thousand googol hundred pieces", increases in magnitude or in verbal emphasis or volume are used to express significance. Many of the students were eager to play with subversion of

meanings and to test the boundaries of the game space, particularly once another player had started the process. When this happened, the students seemed to take pleasure in their own clever ideas and the reactions of their peers. In this case, some of the students clearly viewed an exclamation of “*gasp* Oh My GOODNESS” from their teacher as a sign of success.

Finally, working from their cultural knowledge and feeling free to subvert and explore ideas, it was also common for the students to play with *dark themes*. In some cases, the teachers were surprised by how direct the students were in their play with evil antagonists who were often destructively resolved (“and she was dead FOREVER”). In general, however, the teachers viewed this as part of the freedom to create and work through dark or scary ideas in a safe environment.

5 | Discussion

The central question of the present research was, with an eye toward issues of cognitive and social knowledge construction, how do early childhood learners and their teachers experience the play of a structured cooperative storytelling game using pictorial representations in their shared classroom environment? During examination of multiple game play sessions with students and their teachers, positive and negative affordances to the approach were observed and themes were identified linked to play and games, classroom practice, and aspects of narrative storytelling. These themes provide insight in addressing the question of what we can understand about the role of organized play in the form of a generative storytelling game. Organized play *can* be a valuable tool in the classroom, but understanding how to achieve this and tie it to other curricular goals is critical and may be difficult for some educators. Children were also found to be fully capable of engaging in such a storytelling game (sometimes more comfortably than their teachers) and should be given full credit for their abilities to do such.

Cognitive and Social Construction of Knowledge

One of the focusing questions posed by this research was “How does this inform our understanding of cognitive and social knowledge construction?”. Ultimately this was probably not the correct question and what should really have been asked was “How do theories of cognitive and social knowledge construction inform our understanding of the ways children tell stories in a collaborative game”. Throughout the game play sessions, the children engaged heavily in Brunerian narrative thought. They repeatedly demonstrated

Piaget's notion of play as the work of the child in the way they assigned importance to the narrative elements they were crafting. Vygotsky's notion of stretching at the boundaries of the zone of proximal development to manipulate and experiment with ideas that were not necessarily comfortable or familiar was also frequently apparent, highlighted in the experiments with darker elements.

The Importance of Dark Storytelling

While the classroom teachers and certainly the students were reasonably comfortable with adding and manipulating darker elements in their stories, it is acknowledged that this is not necessarily accepted by culture more broadly in this era, with some expressing concern about dark themes, promoting instead the viewpoint that children's stories, media, and games should avoid dark themes entirely. This approach would seem to diminish the richness of experience that children bring to their understandings of the world as well as possibly deprive them of valuable tools in working cognitively through real concerns in their lives.

Summarizing Chesterton (1909), Gaiman (2002) wrote "Fairy tales are more than true—not because they tell us dragons exist, but because they tell us dragons can be beaten." This idea resonates closely with the notion of zone of proximal development stretch. The point of dark elements is to explore them and find ways to feel comfortable about them or to resolve them as appropriate. Certainly this is not a call to ignore appropriateness of content for children entirely, but to shift focus and concern away from relatively innocuous elements used to understand the world toward the real issues that children face. (Sendak, 1988) describes this difference well, again echoing the ideas of Bruner and Vygotsky:

I have watched children play many variations of this game. They are the necessary games children must conjure up to combat an awful fact of child-

hood: the fact of their vulnerability to fear, anger, hate, frustration—all the emotions that are an ordinary part of their lives and that they can perceive only as ungovernable and dangerous forces. To master these forces, children turn to fantasy: that imagined world where disturbing emotional situations are solved to their satisfaction.

An interesting note to close the discussion on dark themes is that one of the more popular icons on the *Story Cubes* was intended to have this effect on the player. In a discussion with Rory O'Connor (O'Connor, personal communication, Oct 10, 2016), the creator of *Rory's Story Cubes*, he described the evolution of the shadow monster icon:

Rory: That icon was originally a puppet type figure with a dagger in its chest. It was stylised like the drama masks. It was to symbolise the Shakespearean dramas of life/death. The person who used to help make the Story Cubes was grossly offended by this as she abhorred violence. After much discussion and reflection, I knew it had to stay. For me it represented the darker side of life, vs. the Disneyfied “isn't everything wonderful” nature of stories children experience these days. It represented those things we reject. I realised it represented the shadow aspect of ourselves and others. I then knew instantly what the new icon needed to be - a shadow monster that emerges from (and is part of) the person.

Jeremy: Wow - that's fantastic and really interesting in terms of some of the things the kids did with it. They really seemed to love playing with those “dark fairy tale” ideas (almost to the alarm of their teachers).

Rory: Sure. That's exactly why I felt so strongly about keeping this icon. Kids need to know there are scary things in life, and be allowed to process that through their stories.

Implications for Practice

As seen in the themes surrounding classroom practice, many of the implications of using a storytelling game in the classroom are simply good cognitive educational practices such as understanding classroom goals, scaffolding, modeling, and identifying student needs. Other important implications are more specific to the notion of creative and collaborative activities such as balancing the activity for players of different comfort levels or abilities and honoring ownership of place in the game. In particular, one implication is the need for practitioners to understand how to manage the combination of all of these ideas as they appear in a shared game with a creative element.

As became apparent in the post game play interviews, at least some teachers express a demonstrated need and interest for methods training for teachers involving the use of games and collaborative activities in the classroom. While some research may be needed to determine the best methods and how to teach them, it appears that this will more predominantly be an issue of policy than of research. One issue that may underlie this gap may be the relatively broad cultural familiarity with games. By way of comparison, when teachers are asked to incorporate various technologies into the classroom, it is generally assumed that this will be a difficult transition and require methods training or external support. In contrast, when teachers are asked to incorporate a game into the classroom there seems to be an assumption that sounds something like “It’s a game. Everyone has played games. How hard can it be?” and teachers’ needs for methods and support are often ignored as a result.

Limitations

As a case study, the ideas discussed in this research are limited to the experiences of a subset of teachers and students as they interacted with this particular storytelling game in

the environment of their school. Other storytelling games may work differently and lead to differing insights, themes, or conclusions. One notable limitation is that this school is a university affiliated child development lab with high levels of resource and involvement. An important next step therefore would be to examine a variety of schools to develop a broader picture of these experiences. Additionally, this research is confined to a relatively narrow age range and it would be illuminating to understand how the experiences of other age groups might differ, though there are likely limits to how much younger the activity could be used. Finally, there is a limit to the length of engagement with the school environment during this study. A longer embedded look at how integrating a game such as this into a classroom could answer some the questions asked in this research and by the teachers about appropriate uses of the game.

Directions for Further Research

The findings of the current research imply several potential next steps. First, because the present research was in a school with relatively high levels of resource and involvement, it is important to consider the experiences of less well supported schools. This has the potential to be pragmatically important as well. Tabletop game interventions tend to be low cost and require little external support to put into place, so any value found in the use of this sort of game in this environment may be particularly beneficial for teachers and students.

Next, The demand for more knowledge about methods and approaches to integrate and support games in the classroom should be investigated. As stated previously, this is probably more of a policy issue than a research factor, but there will likely be questions about integrating these ideas that should be examined closely.

Another topic for future inquiry is the possible incorporation of artifact making into the

storytelling game. This was observed in an ad hoc way in some of the game play sessions, but considering the unprompted emergence of this practice and its relative closeness in form to Paley's storytelling curriculum is worthy of a closer examination in a more structured constructionistic manner.

The volume of stories using dark fairy tale style themes was not expected, but is entirely sensible in terms of the experiences of the authors of such works and from what is known about constructivist theories of child development. Understanding more about how this plays out in children's storytelling activities as well as how this knowledge would potentially be helpful to children and their parents, caregivers, and teachers.

Finally, one of the underlying theories guiding the present research was that of Brunerian narrative mode thought. The present work has examined this notion in terms of one element. There are others areas that addressing classroom concerns from this perspective could be valuable such as organization, planning, goal setting, and conflict negotiation and resolutions. The notion of using a storytelling game as a vehicle for guiding the creation of narrative was also played out successfully and this should be examined in terms of other educational questions and concerns.

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A | Teacher Introduction

1. Please tell me about yourself as a teacher and your teaching experiences.
2. Tell me a little bit about your students.
3. What are your thoughts about the role of play in the classroom?
4. What are your thoughts about the role of games in the classroom?
5. Do you have any questions or concerns about the game you'll be facilitating?

B | Play Session Questions (Learners)

1. Tell me about the game you just played

- What were the rules?
- Have you played a game like this before? (where there's "no winner")
 - What kinds of games do you play at home?
 - What was it like to play a game where everyone builds something together?
- How fun was the game?
- What would you do next time you played the game?
- What was something you liked about the game?
- What would you change about the game?

2. What kinds of stories do you usually tell?

- What was it like to make stories with your friends in a game?
- What was your favorite part of the story you created?
- What would you like to change about the story?

C | Play Session Questions (Teacher)

1. Tell me about the game you played with your students
 - Which rules did you choose to use when you played the game?
 - How would you use this in your classroom?
 - What would you do next time you use this game in the classroom?
 - What was something you liked about this game?
 - What would you change about the game?
 - How do you feel the game meets classroom objectives?
 - How would you integrate a game like this into the curriculum?
2. What are your experiences with games in the classroom?
 - How have you used games in the classroom previously?
 - What are your thoughts about games as a classroom tool?
 - Do you also play games for fun outside the classroom? What kinds?
3. What are your thoughts about narrative and dramatic play in general?
 - How did this game compare to other storytelling activities like dramatic or free play?
4. You spend a lot of time working with these children — what did you observe during that game that you think I should pay special attention to?
5. What else should I should know about the experience?

D | Followup Questions (Teacher)

1. After the game was played in the classroom, has there been any repeated interest in the game?
 - Was this initiated by teachers, learners, or both?
2. Have you observed any of the ideas or characters from the story the kids created in the game showing up again in other class activities or play?
3. Have you or any of the other teachers used any of the ideas or characters created in the game in their class activities or play?
4. Now that you've had time to reflect on the experience, what other thoughts would you share?

E | Rules for Rory's Story Cubes

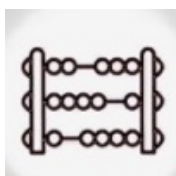
The following rules are as printed in the Rory Story Cubes Max edition of the game as published in the United States by Gamewright in 2014

How to play Rory's Story Cubes

There are infinite ways to play with Rory's Story Cubes. You can play solitaire or with others. Here are a few suggested ways to unleash your creativity:

1. Roll all 9 cubes and look at the face up images. Pick an image that will be the starting point for your story. Beginning with "Once upon a time...", make up a story that somehow links together all 9 face up images.
2. Think up a title or theme for a story. (Examples: "The beach", "My fantastic vacation", "Dream".) Then roll all 9 cubes and try to tell a story that relates back to the title or theme.
3. Divide the cubes evenly among the players. (It's ok if some get more than others.) Starting with one player and continuing in a circle, take turns rolling the cubes and adding to the story based on the face up images. Stop after all 9 cubes have been rolled, or continue rolling for additional rounds.

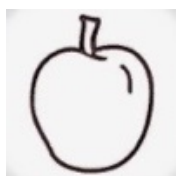
F | Guide to Rory's Story Cube Icons



Abacus



Alien



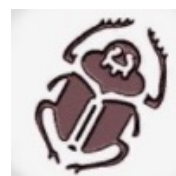
Apple



Arrow



Bee



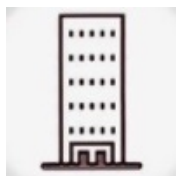
Beetle



Book



Bridge



Building



Cane



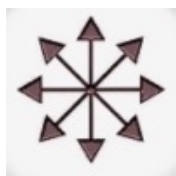
Clock



Die



Earth

Eight-Way
Arrow

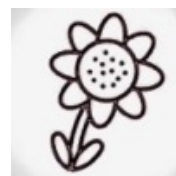
Eye



Fire



Fish



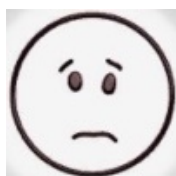
Flower



Footprint



Fountain



Frown



Hand



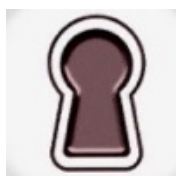
House



ID Card



Key



Keyhole



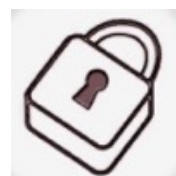
Letter



Light Bulb



Lightning



Lock



Magic Wand



Magnet



Magnifying Glass



Masks



Microphone



Moon



Parachute



Phone



Plane



Pointer



Pyramid



Question Mark



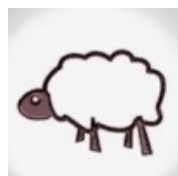
Rainbow



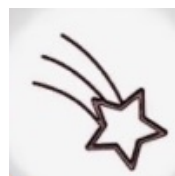
Scales



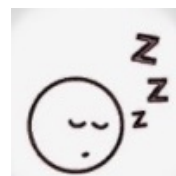
Shadow Monster



Sheep



Shooting Star



Sleep



Smile



Speech Bubble



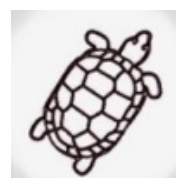
Teepee



Tower



Tree



Turtle