

## I ntroduction

Children typically have extensive expertise and experiences of computer games, which can enable them to make valuable contributions when involved in the design of games. Narratives are an important and motivating component of games. As Tan et al. [2] claim, the integration of narrative elements into games to increase children's engagement is now a common technique and involving the children in the narrative design could ensure the resulting game is "contextually, temporally and culturally relevant to their life experiences" [1]. We have involved children in the design of a game narrative for literacy game aimed at 9-11 year olds to (i) examine children's sense making in the context of our game narrative as well as understand how they construct and tell stories more broadly and (ii) explore how to best support children's storytelling within design activities during the game design process.

## M ethods

We undertook two design workshops with two classes at a mainstream primary school in London, UK, with 37 children aged 9-11 years participating in groups of 4-5. It was explained to the class that we were designing a learning game for reading and writing based on the **Day of the Dead** (a Mexican festival celebrating the lives of relatives/friends who have passed away). The workshop included several different design activities:

1. Introduction of festival traditions/customs through an animated film and storytelling.
2. Children creating one living and one dead character.
3. Making the characters using a selection of art materials.
4. Generating a story about the characters and how they communicate with each other.
5. Telling their stories through filming with Flip cameras.



## F indings

We undertook a thematic analysis and identified several themes within the data.

### Understanding children's sense making through storytelling

- Focus on the relationship between the two characters
- Nonsensical story elements
- Fascination with death
- Religious associations



### Supporting story creation and expression

- Character profile paper templates
- Clay modelling
- Paper story grids
- Verbal improvisation
- Storytelling through acting, dancing, song, and/or verbal narration and explanation using props such as clay models or drawing



## I nitial design implications

These findings have provided a basis for a set of initial design implications to help guide the development of narratives within children's games.

### Fostering imagination through nonsense

Integrating nonsensical content within game narratives provides opportunities for children to use their creativity and imagination to 'fill in the gaps' within different stories encountered during the gameplay. It can also provoke curiosity or surprise through the narrative that can support enjoyment and engagement within the game

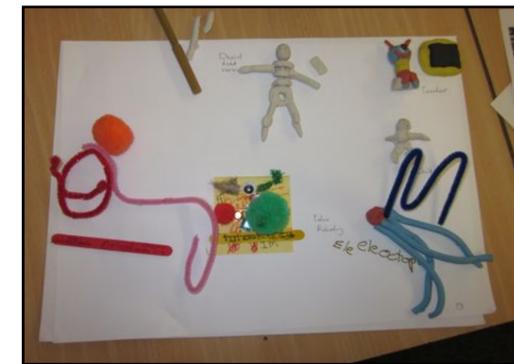


### Providing space to explore the unfamiliar

Experiencing emotions associated with adult topics such as mortality within a secure environment is important for children to learn how to deal with death in the real world. Therefore whilst topics such as this should be handled with care, game designers should not completely avoid the inclusion of more macabre narrative components, as this is a key area of potential appeal and learning for children.

### Social rules and structures

Identifying recognizable social rules and structures, and reflecting them in the game narrative, may help to support children's comprehension and connection with a game and its educational content. However, game narratives can also provide valuable opportunities for children to learn about unfamiliar social rules and relationships, once children feel secure with other aspects of the game context.



## A cknowledgments

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## R eferences

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- [2] Tan, J.L. Goh, D. H. L., Ang, R. P., and Huan, V. S. Child-centered interaction in the design of a game for social skills intervention. *Computers in Entertainment*. 9, 1 ( 2011), 1–17.