

Purposeful Play: Evaluation and Co-Design of Casual Music Creation Applications with Children

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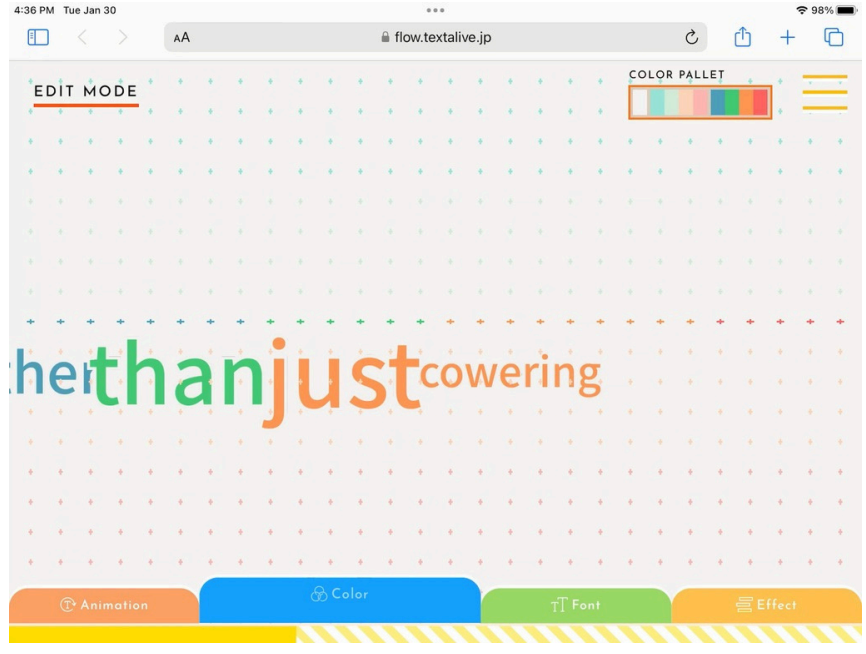
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Introduction

Digital technologies have expanded opportunities for creativity, yet many music-related tools overlook children's unique needs. This study explores casual music creation for children, focusing on playful, self-expressive experiences rather than skill development. Using co-design with children aged 6-13, we examine how creative music applications can better support their expression and propose design principles to guide future development.

Design Session 1



Children interacted with four casual music tools to elicit their feedback:

- TextAlive
- TextAlive Flow
- Incredibox
- Sketch-a-Song

Their likes, dislikes, and design ideas were captured and organized thematically to inform design session 2.

Figure 1. A screenshot of a child using TextAlive Flow

Design Session 2

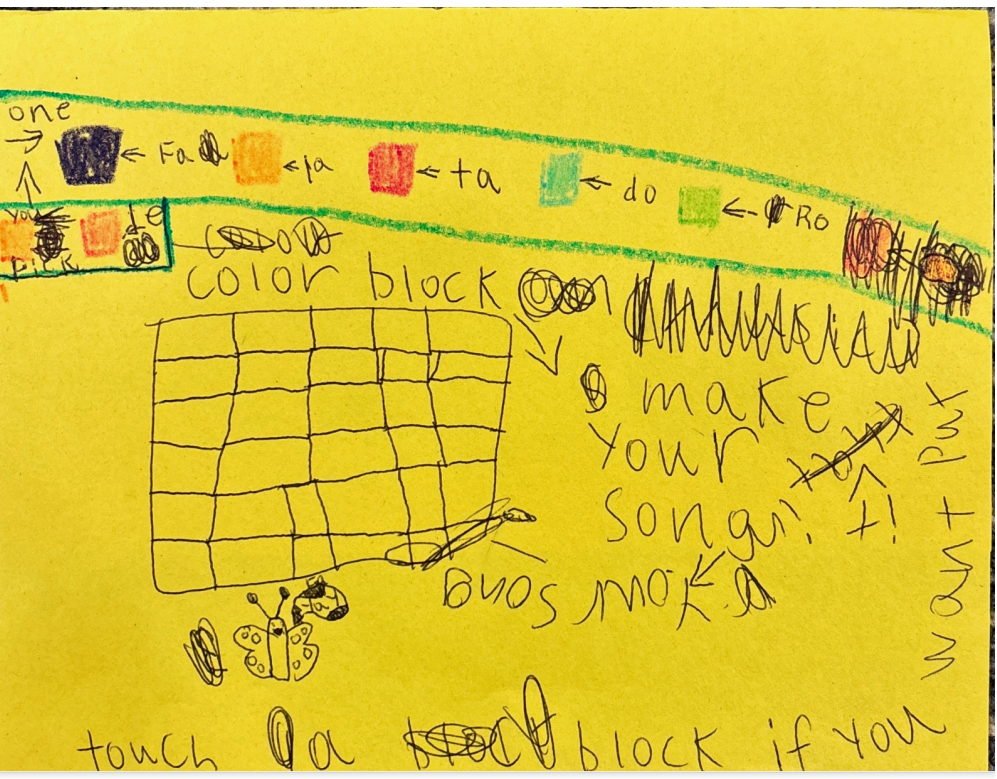


Figure 2. A design of an app called "Color Block" that lets users compose a song by dragging colored blocks representing notes





Figure 3. A design for music app called "Dreamer" that lets users select visuals to create "vibes" that match the music

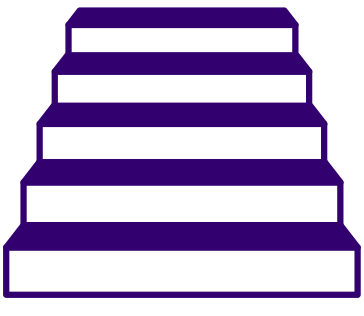
Children were tasked with designing their own casual music creation app. They defined their app's allowances and created a user flow, including how they moved between the homepage, creation interface, and into sharing their creations with others. Using craft materials, they created low-fidelity prototypes based on themes from the first session.

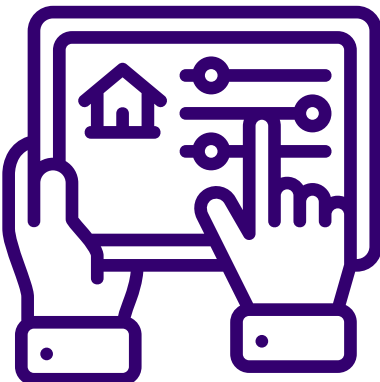
The Purposeful Play Toolbox

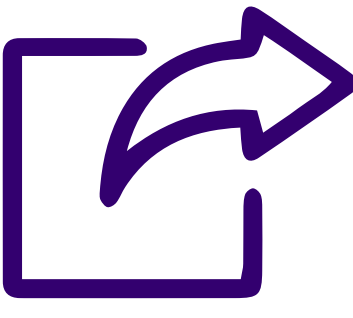
Purposeful Play

The process in which children explore an application's possibilities through creating personal outcomes based in self expression. In this type of play, casual interactions with music are intentional acts of creativity, where the process leads to a musical outcome worthy of sharing with others.

 **Controlled Serendipity**
E.g., structured guidelines, controlled randomness, and transparent feedback mechanisms

 **Visual Scaffolds**
E.g., real-time visualizations, character-based imagery, and customizable aesthetics

 **Direct Manipulation**
E.g., interactive elements, objects responding to user actions, and tactile interactions

 **Shareable Intermediate Outputs**
E.g., sharing options, user-generated content galleries, and the ability to remix or elaborate on others output