

### A bit about zinc Roe

- small studio based here in Toronto,
- build interactive content for kids
- have been building iPhone apps for a little over a year now.
- have 17 apps in the app store.

### Going to cover

- why we decided to get into iPhone development
- what we are trying to achieve with Tickle Tap Apps
- some lessons we learned along the way.



Most of our work has been in Flash on PCs.

Device features make it great for kids.

Touchscreen input much better than mouse and keyboard

78 million iPhone OS devices as of end of 2009

70% revenue goes to developer

hardware specs not as fractured as other platforms.



These two pictures sum it up nicely.

love how she is touching the monitor in this photo, it comes naturally.

An iPhone travels and can be used just about anywhere.

Testing web-based content for preschoolers we always run up against a few issues that are outside our control.

Trouble with:

- mouse & keyboard
- browser chrome, OS chrome. Back button, etc. These are UIs not designed

## Our Objectives

- Simple, friendly aesthetic
- Single-purpose apps
- Consistent look, feel & sound
- Take advantage of iPhone features
- Usable by very young kids

- content for young kids is where iPhone has biggest advantage
- looked at what was available
- intuitive enough for kids to use on their own

## Suite of Apps



- specific learning outcomes (e.g. counting, learning colors, shape matching)
- open-ended and exploratory (e.g. sound shaker, field flier, find fins)

## Start with Ideas



- Themes: colours, numbers, shapes, letters
- Toys: instruments, blocks, puzzles
- Games: scavenger hunts, hide and seek
- Activities: decorating, cooking, making faces

- Process
- Generate ideas, filter, come up with more ideas.
- Some ideas die quickly. Others die only late in the process.

## Design & Development

- Written description
- Wireframes
- Prototypes
- Illustration
- Animation
- Sound design
- Asset preparation
- Programming
- Voice-over recording
- Test builds
- QA testing
- Playtesting

Not going to lie. This is not a linear process.

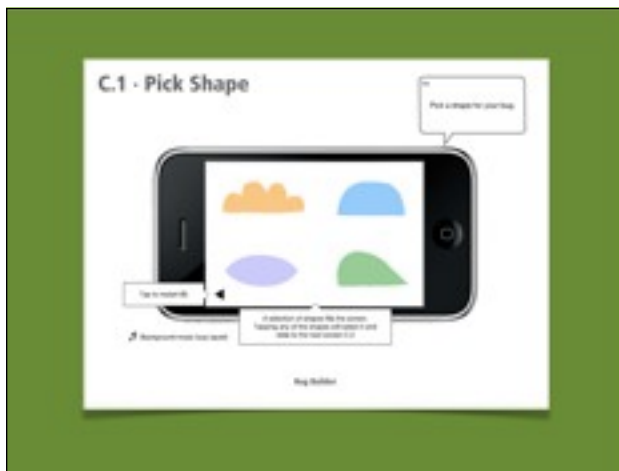
## Lots to learn

- XCode, iPhone SDK and Objective-C
- Optimizing for limited CPU and memory
- Programming for multi-touch
- Security and provisioning profiles
- Approvals process
- Marketing and promotion

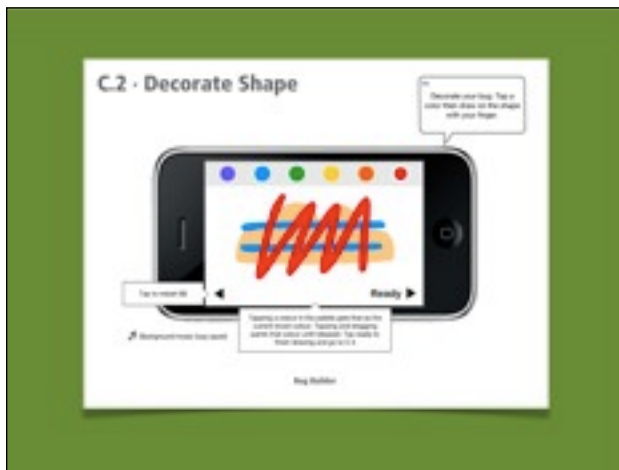
## Closer Look



Walk through the process in a bit more detail.  
Idea comes right out of a typical preschool craft activity.  
It's a painting app, but with more of a specific direction to it.



- a screen from the wireframe for Bug Builder.
- screen where kids choose a shape for their bug.
- removed this navigation button from the bottom left corner



- screen where kids paint their bug.
- changed the 'ready' button
- moved the position of the palette.



- screen where their bug 'springs' to life.
- moved buttons out of the bottom corners.
- kids 'tap' a cocoon to bring their bug to life.
- Wireframing is a critical phase.
- Where many good-sounding ideas go to die.
- Reviewed by all the key team members including education advisor.

## Bug Builder



This is Isabel.

## More on Playtesting



- Early and often
- Informal, qualitative
- Lightly guided
- Involve production team
- Always learn something
- QA and usability issues

Here's Vanessa watching as Charlotte tries a game in the playground.

## Touches, Touches, Everywhere

- Easier to trigger a touch than to click a mouse.
- Touch events can block subsequent concurrent touches.
- If it moves they will touch it. If it doesn't they'll touch it anyway.

Two big things that the play testing helped us with.

- accidentally touch the edge of the screen while holding the device.
- common in the bottom corners of the screen (landscape mode).
- moved buttons out of the bottom corners.
- keep 20-30px space between buttons and the edge of the screen.
- setup the apps in multi-touch to prevent buttons from being blocked.

## Adjusting Feedback

- Only noticeable after longer play testing.
- Over time voice-overs can go from helpful to annoying and animations can go from rewarding to getting in the way.
- Part of the reward is in figuring things out. Too much help can take this away.
- Takes time to find a good balance.

- not unique to app design.
- reduced voiceover and the frequency of many of the animations.
- added logic to make the voice-over smarter.
- inactivity delays.

## Some final notes...



- App Store comes with its own issues – approvals, discoverability.
- App Store as a distribution channel
- up to you to promote your apps.
- produced promotional videos, reached out to bloggers, did some paid advertising, ran some contests.
- building trust with parents.
- website brings all this together including twitter, youtube and facebook.

## Thank you

OMDC IDM Fund for their financial support.

Suzanne Andrew, Carla Fisher, Deb Ptak  
and the rest of the project team.

Jason Krogh  
[www.zincroe.com](http://www.zincroe.com)  
[www.tickletapapps.com](http://www.tickletapapps.com)