

Get the little ones moving!



Augmented Reality Games for Elementary Students

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The game plan!

1. The Premise
2. Demo – Let's Play!
3. Curricular Implementation
4. Design Lessons Learned
5. Questions?

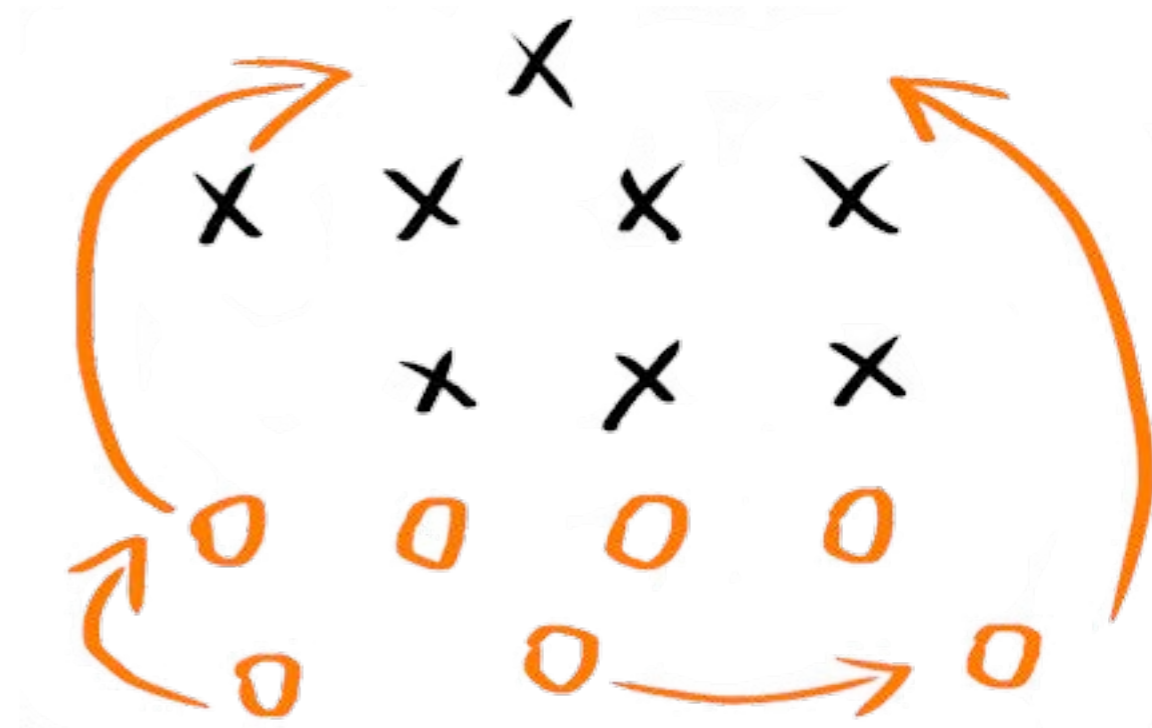
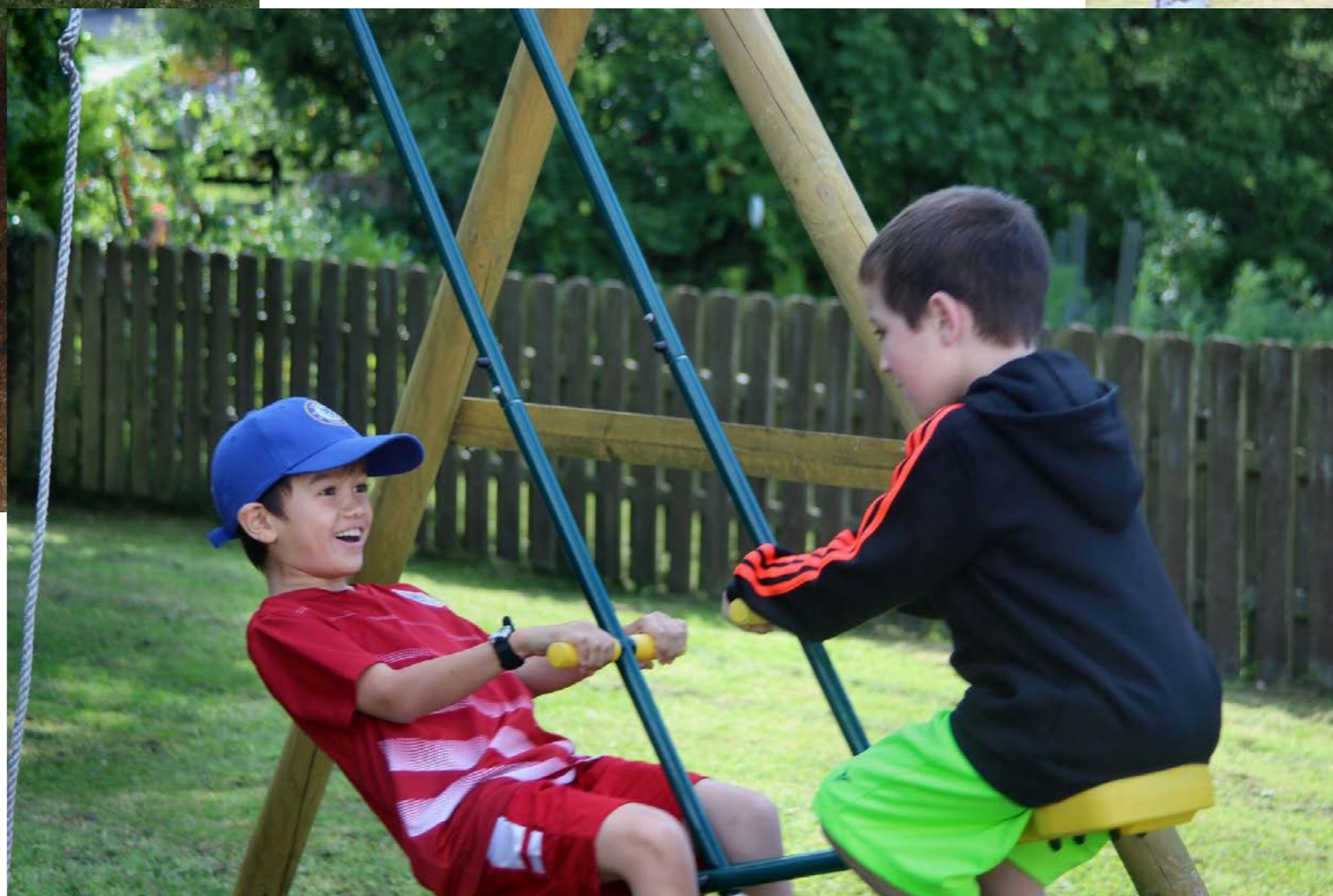


Image: <http://www.xlyouthsports.com/gear.html>

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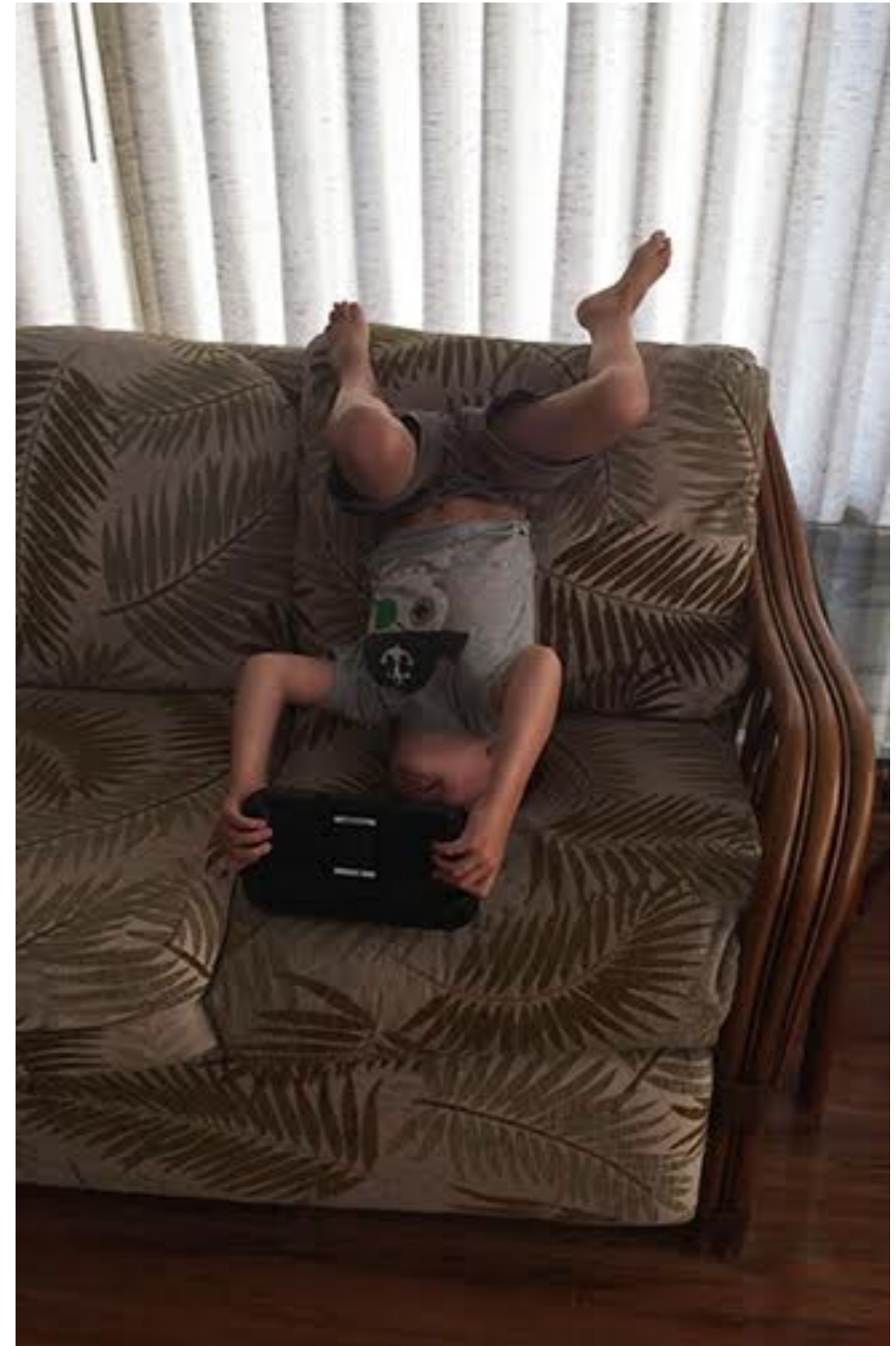
We know kids like to be active!



We know kids can learn while being active.



And...we know kids love games.



The recipe:

$$\begin{array}{c} \text{Kids} \\ + \\ \text{Action} \\ + \\ \text{Gaming} \\ + \\ \text{Augmented Reality} \\ \text{(special sauce)} \\ = \\ \text{Totally Awesome Learning Experience!} \\ \text{(T.A.L.E.)} \end{array}$$

And, that's a good story.

Augmented Reality (AR) provides context for learning



Mobile → AR → Context

Demo – Let's Play!



Mountain Top Meltdown!

Curricular Implementation

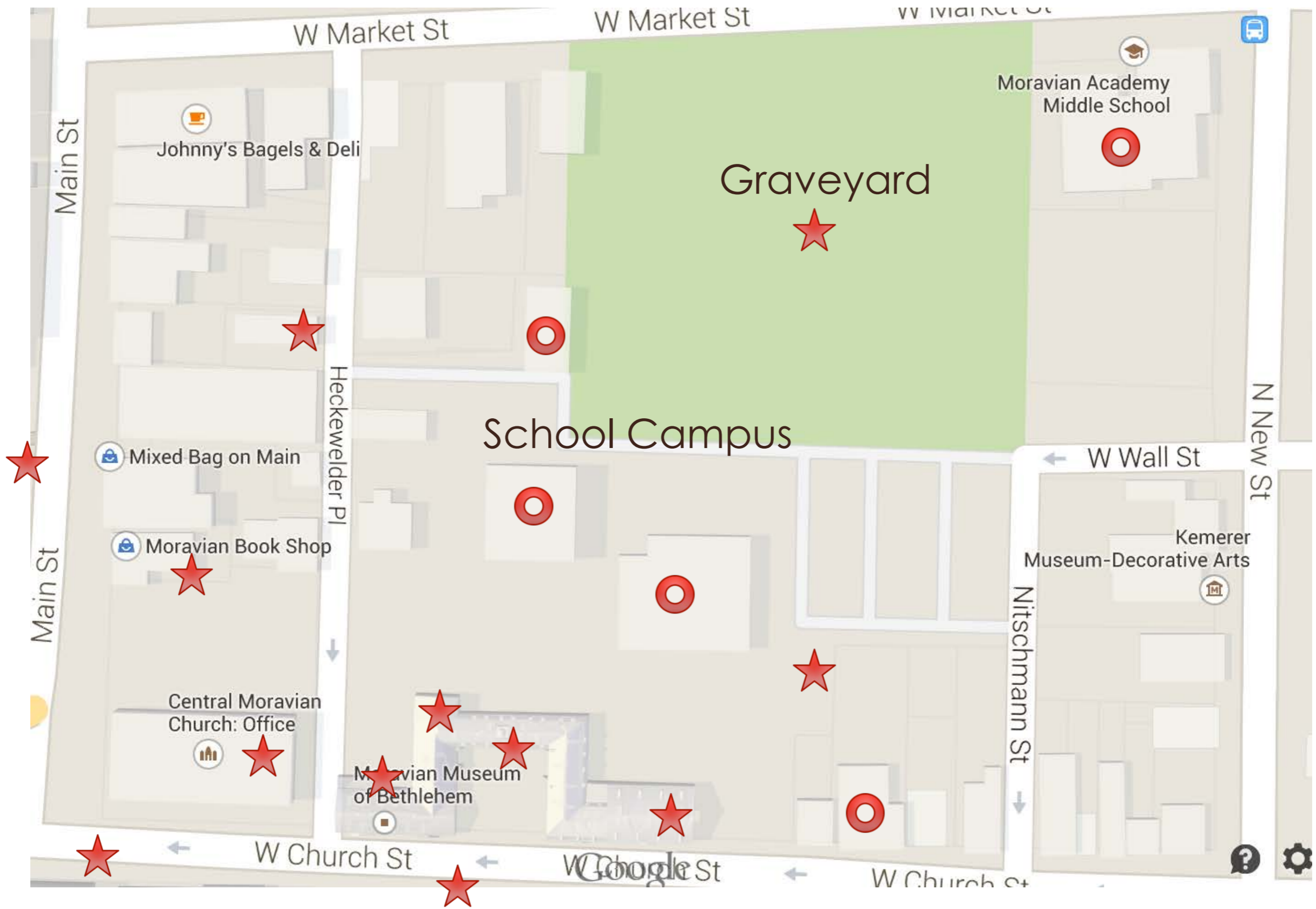


Moravian History Mystery!

Moravian History Mystery!

- 3 classes
- 3 teachers
- Located in historic district
- Colonial Moravian History is part of the current curriculum

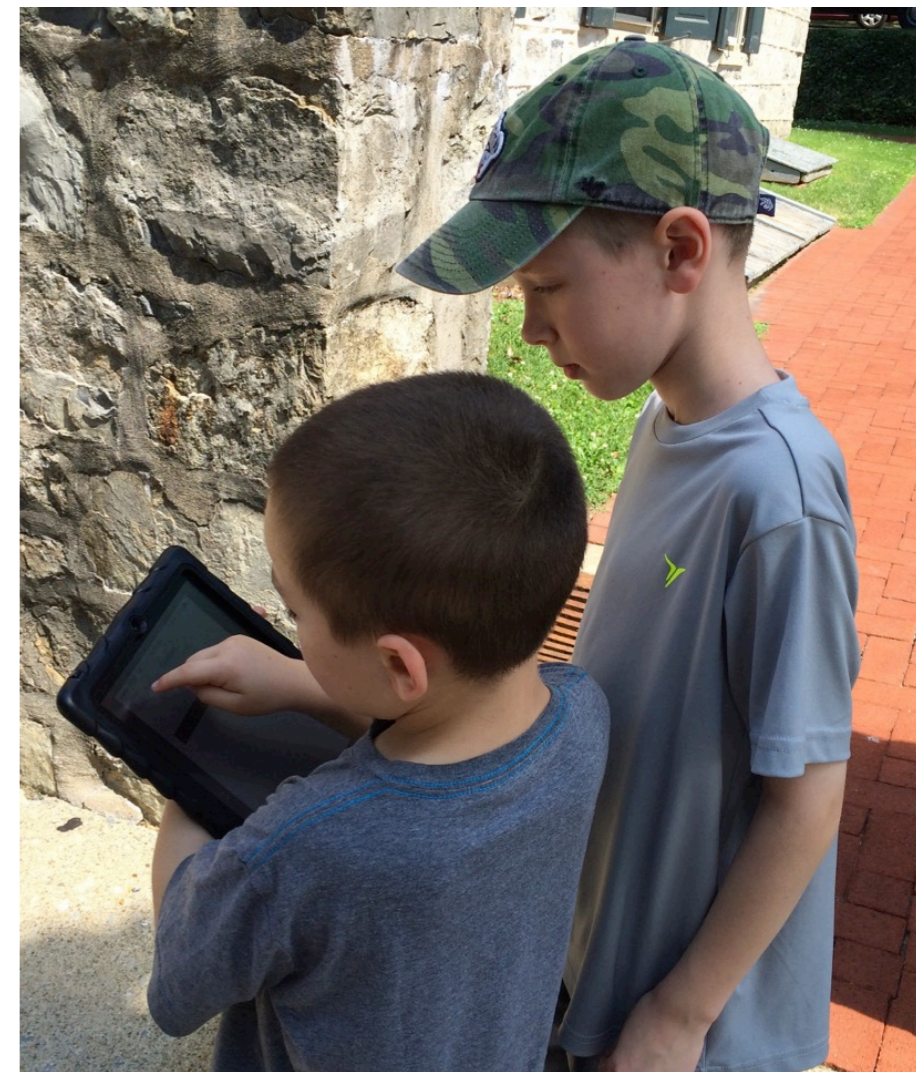
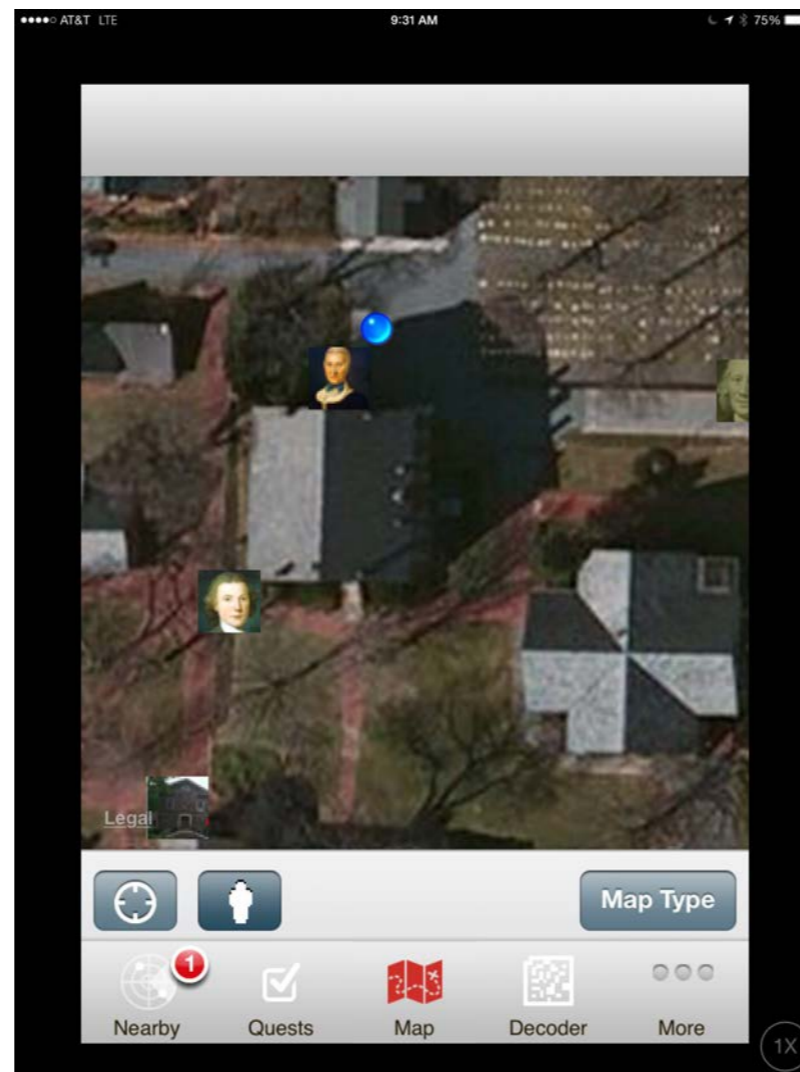




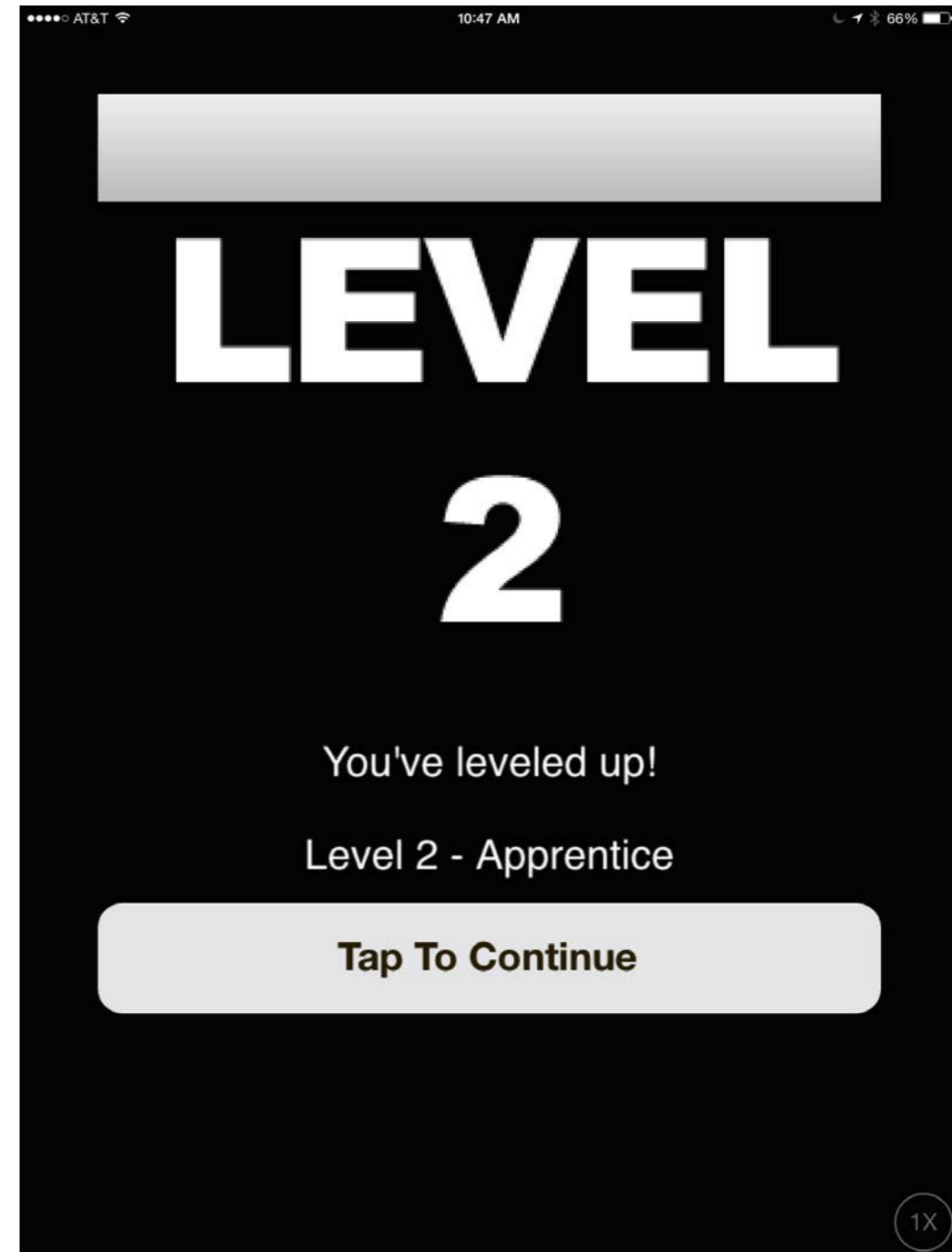
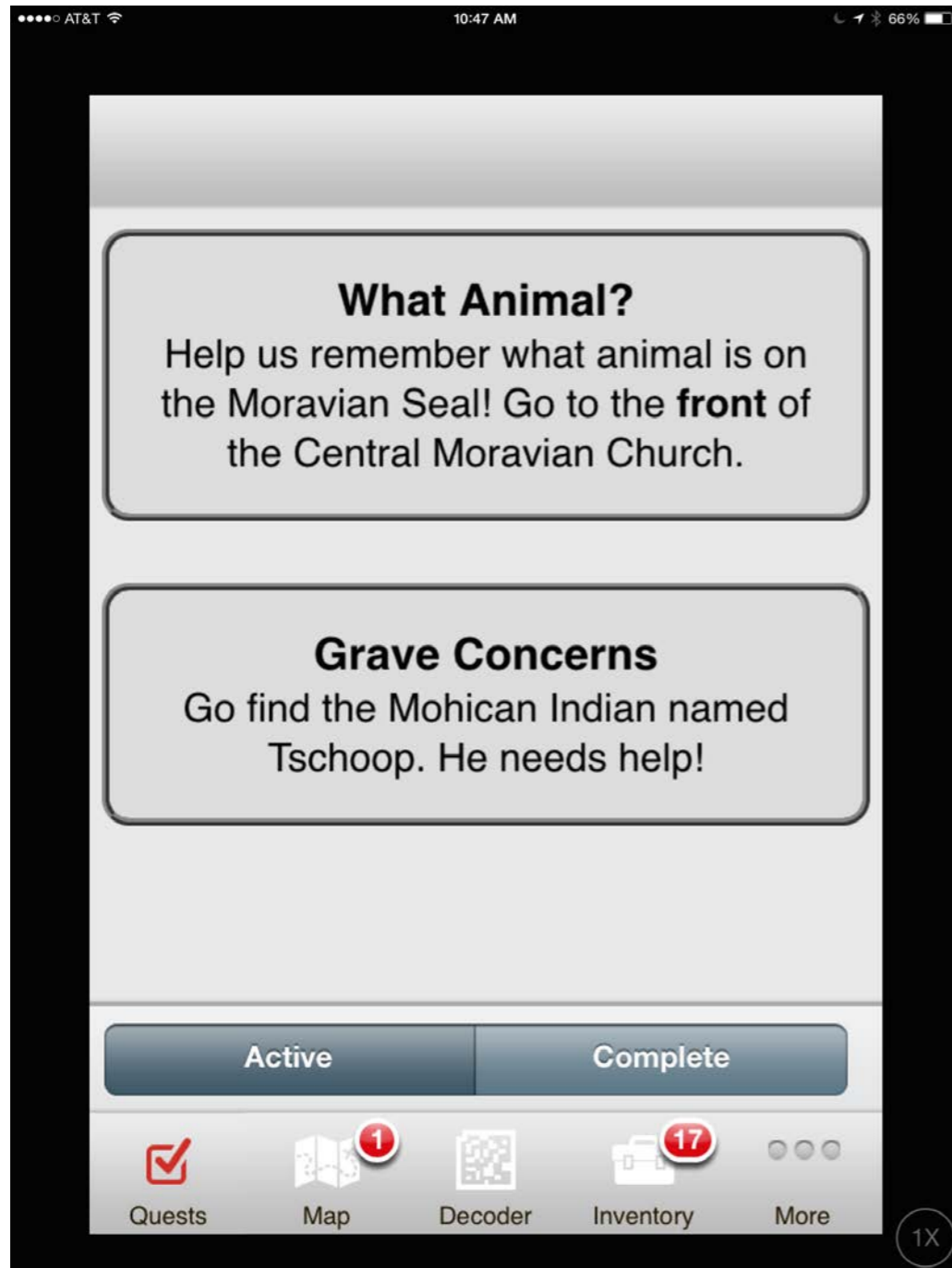
- ★ Historical Sites
- School Buildings

The Game

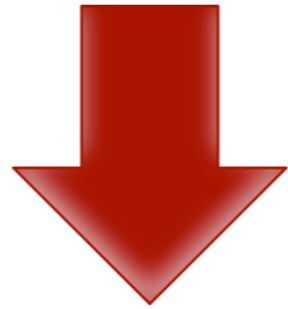
- Utilized ARIS platform
- GPS triggered AR
- Introduction in classroom
- Students played in pairs or triads



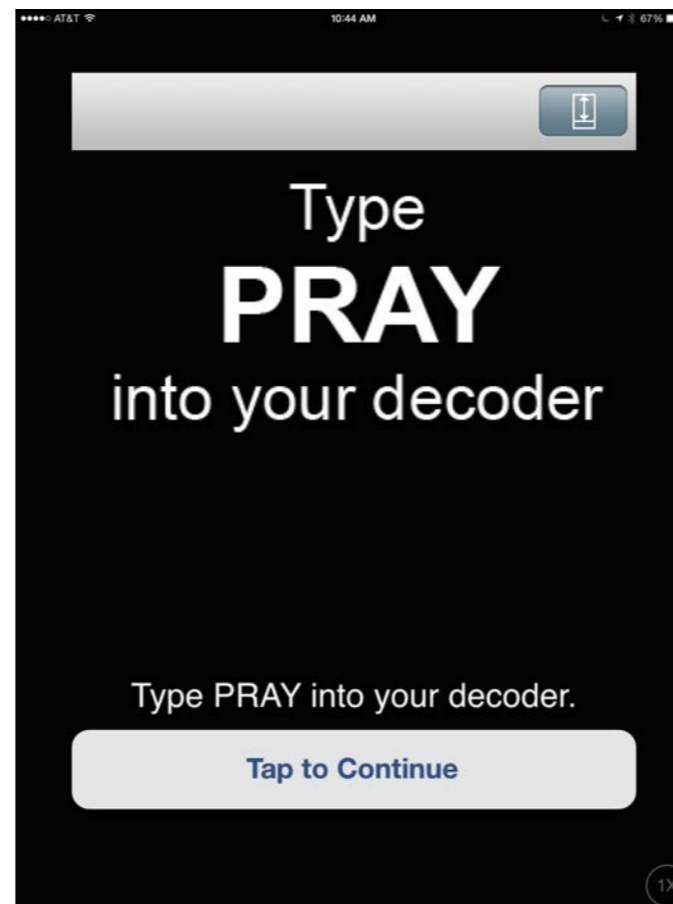
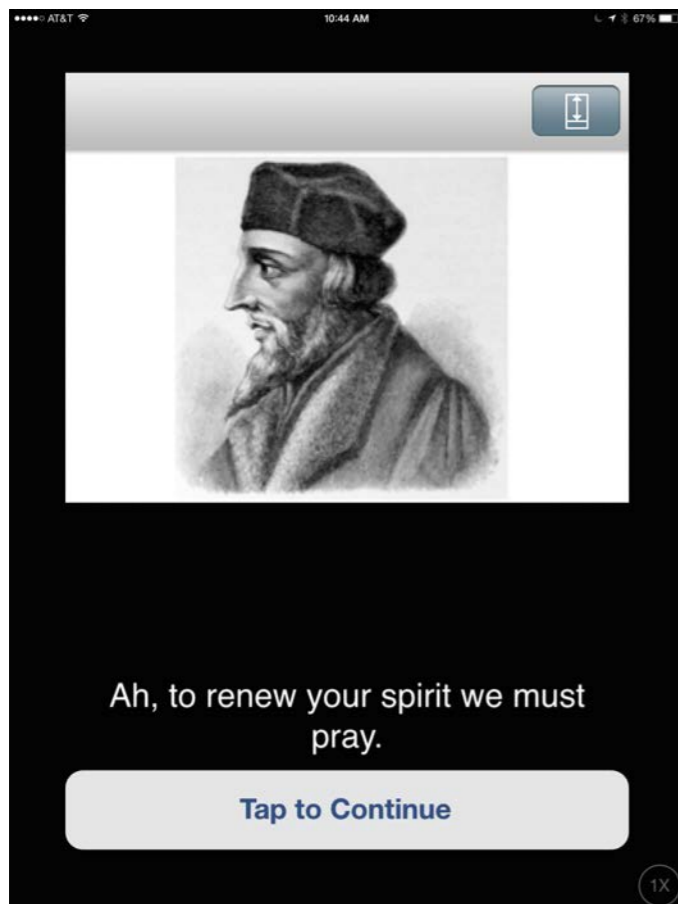
Quests & Levels



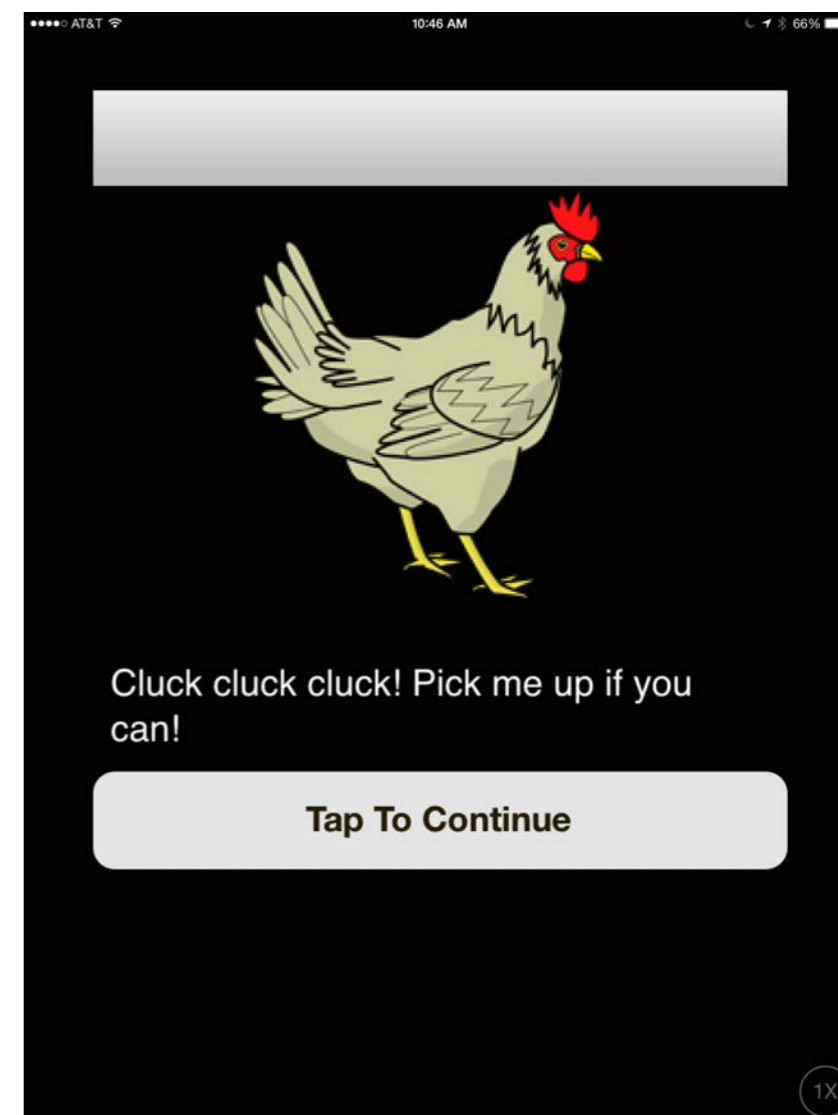
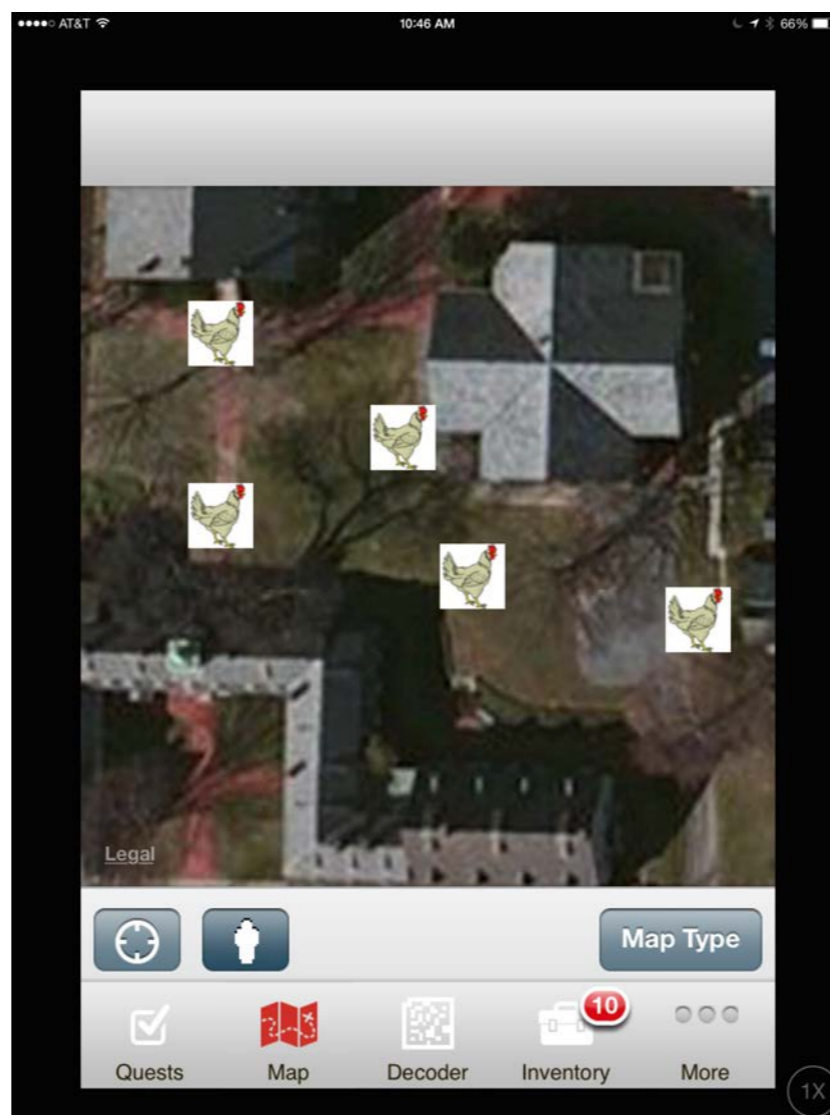
Customs of Society



Action of Game



Feeling like a game...



Question, Comments, Thoughts?

Game Design Implications

For **young** learners:

- Geospatial skills require significant scaffolding
- Reading requirements needed to be both grade level and not distracting to gameplay.
- Video content was not received well in initial testing.
- Certain types of gaming activities were popular and well received such as collecting items, typing codes, and figuring out the right order.
- Curriculum content needs to be an active part of the game experience and not provided as "additional info".
- Teachers provided valuable insights that guided the researcher's design process.

It Works.

Serious games for social studies can be effective with young elementary students

"As we were reading through the information, they would make references to things they learned in the game or things they did in the game. I think that's a little bit empowering for them because they're like hey, we already know about this. Whereas before, they didn't know anything until we told them." (T2-TD1-33)

Want another example?

Check out Dr. Thomas Hammond's Session at 12:05pm



Teaching Community Needs using Augmented Reality, Google Earth, & ARIS

Questions?

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