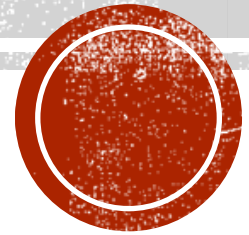




PLACE-BASED GAMES FOR ELEMENTARY SOCIAL STUDIES



Julie Oltman, Lehigh University
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Thomas Hammond, Lehigh University

THE SETTING

- Games built for local private school located in a downtown, historic district.
- This location provided many opportunities for taking social studies instruction outside!
- Enthusiastic faculty
- Worked with grades 2-4
- [Note: 2 of the games are portable—can go to any school, any location]



THE GAMES



Community Needs Game



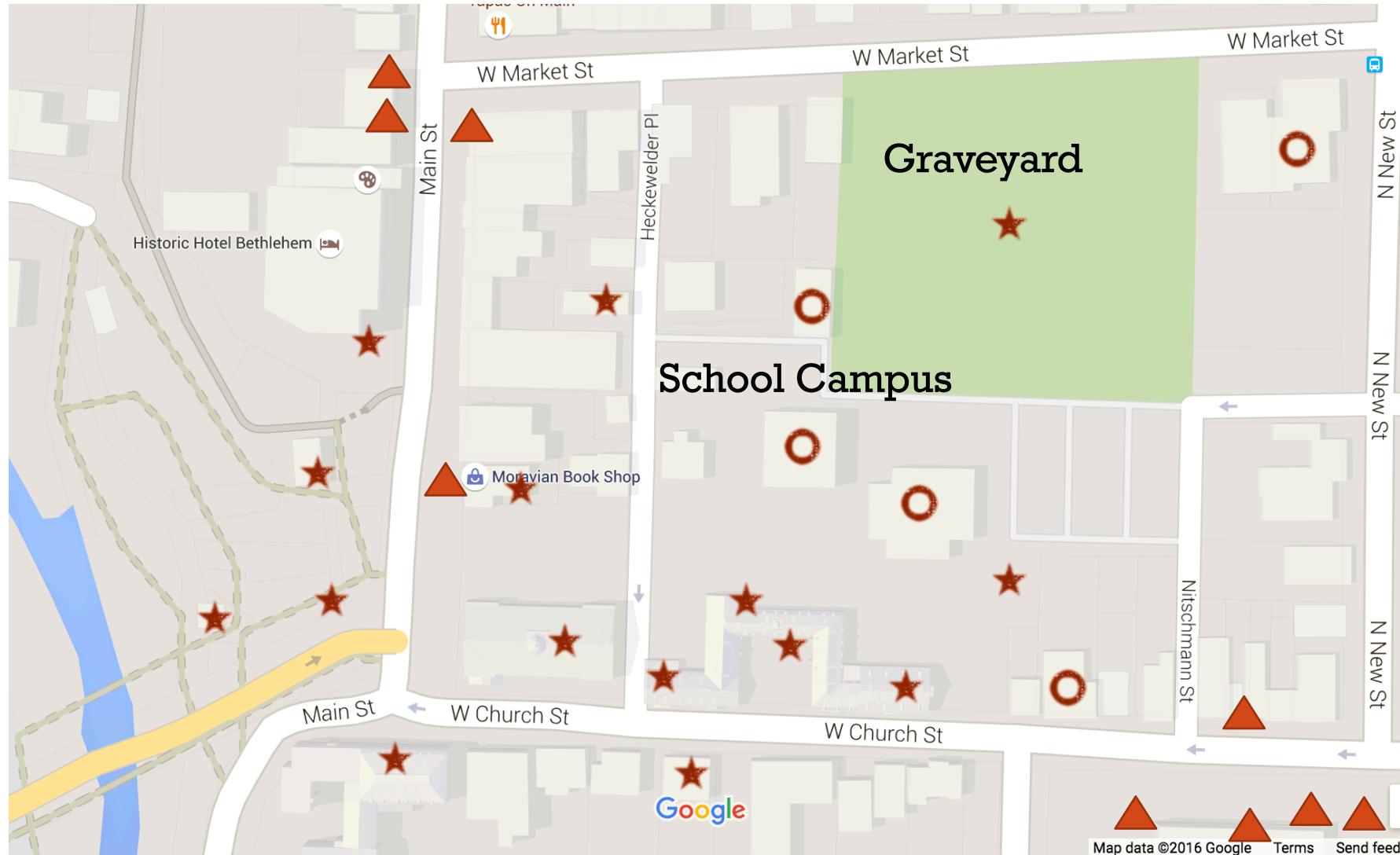
Great Government Guru Game



Moravian History Mystery



WHERE WE WERE & HOW WE USED THE SPACE



★ Historical Sites

○ School Buildings

▲ Government Locations

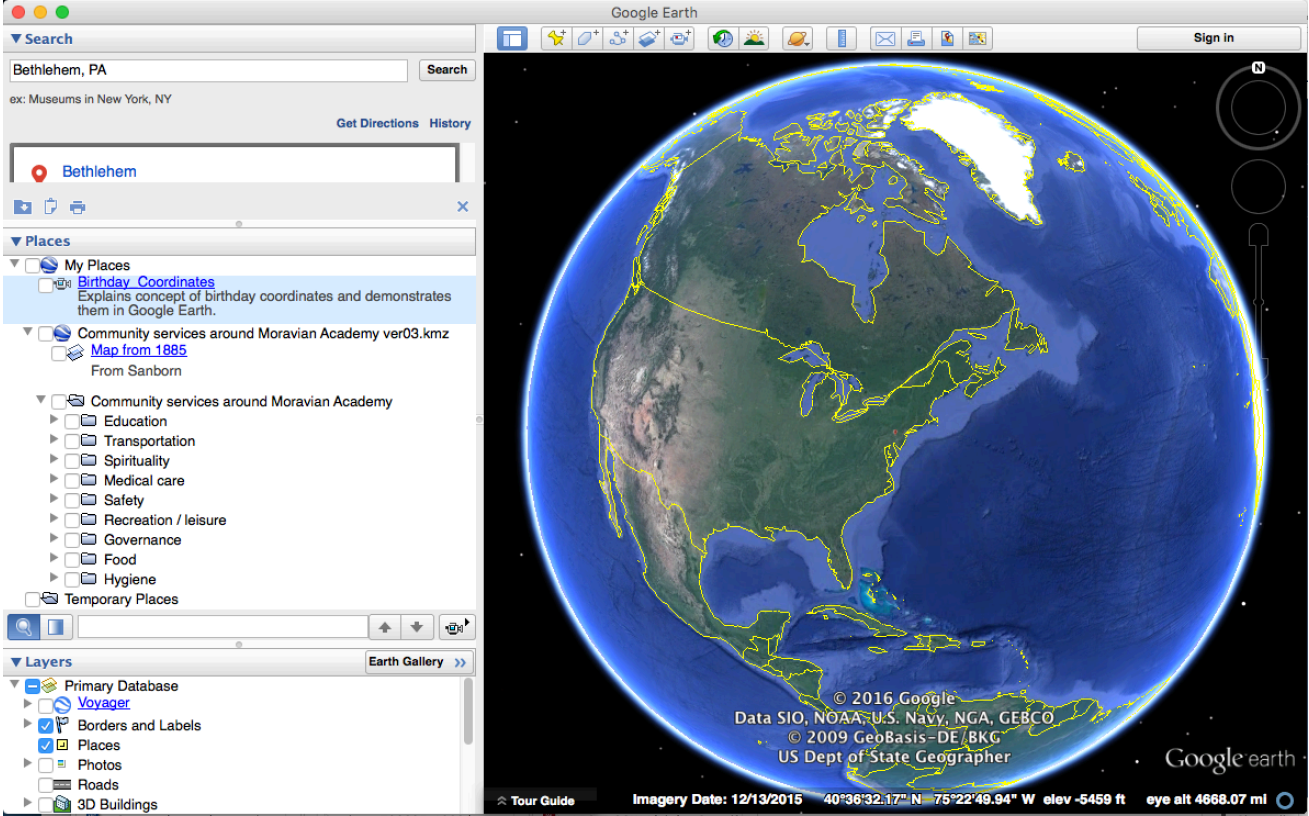


COMMUNITY NEEDS GAME

- Defines “community” around how different “community needs” are met: food, water, safety, education, etc.
- Placed QR codes around the school campus on people, places, & things meet (school) community needs
- Players challenged to find & scan resources for all of the community’s needs
- Game embedded within a wrap-around lesson that begins & ends with Google Earth and worksheet.
- After game, homework to reinforce: locate community resources at home?



INTRO WITH IMAGINATION & GOOGLE EARTH



LET'S THINK!

Before:
Brainstorm
&
Organize
the hunt

Community needs activity Name: _____

What does a community need? Date: _____

1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Hammond / Oltman, Lehigh University, Spring 2015

Community needs activity Name: _____

What about the community of your *home*? Date: _____

Your home is a community on a very small scale. Because it is a community, it still will have things, people, and places that meet the community's needs.
Use what we learned to name some of the things, people, and places in your home that meet your needs! You don't need to fill in every square, just see what you can think of.

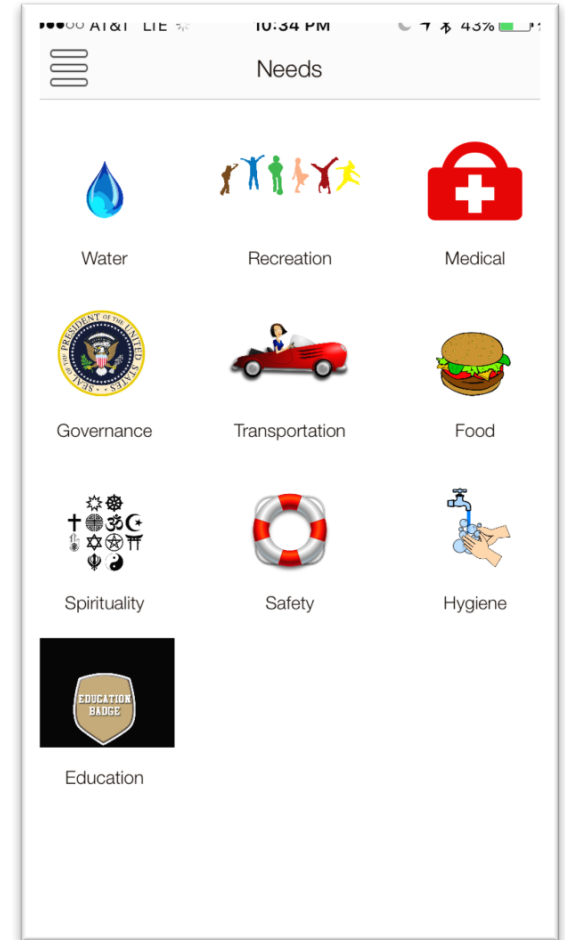
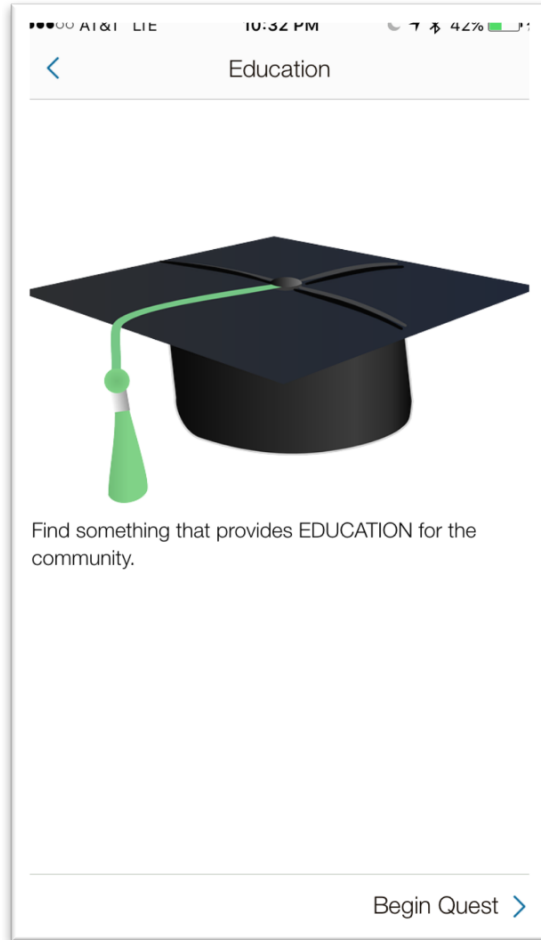
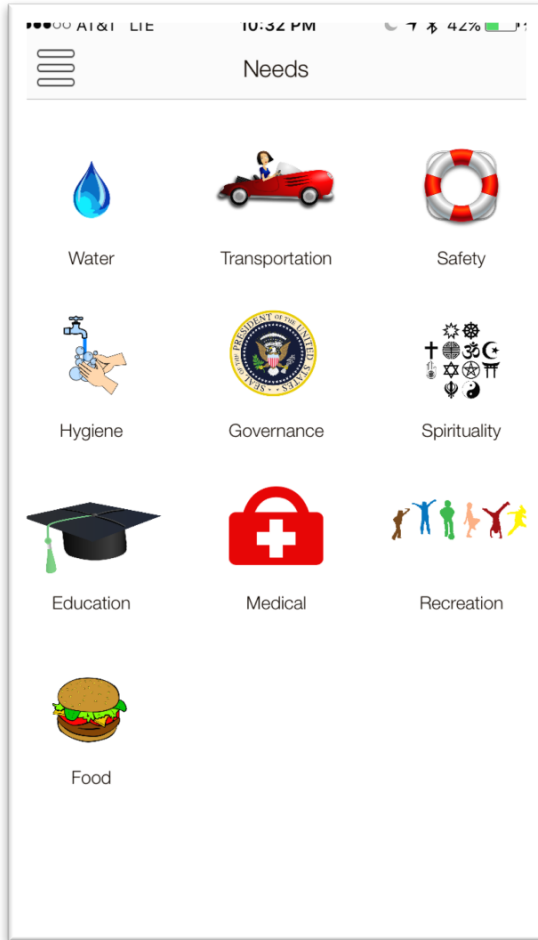
Needs	Things?	People?	Places?
<i>Food</i>			
<i>Water</i>			
<i>Safety</i>			
<i>Transportation</i>			
<i>Hygiene</i>			
<i>Medical care</i>			
<i>Governance</i>			
<i>Recreation / leisure</i>			
<i>Spirituality</i>			

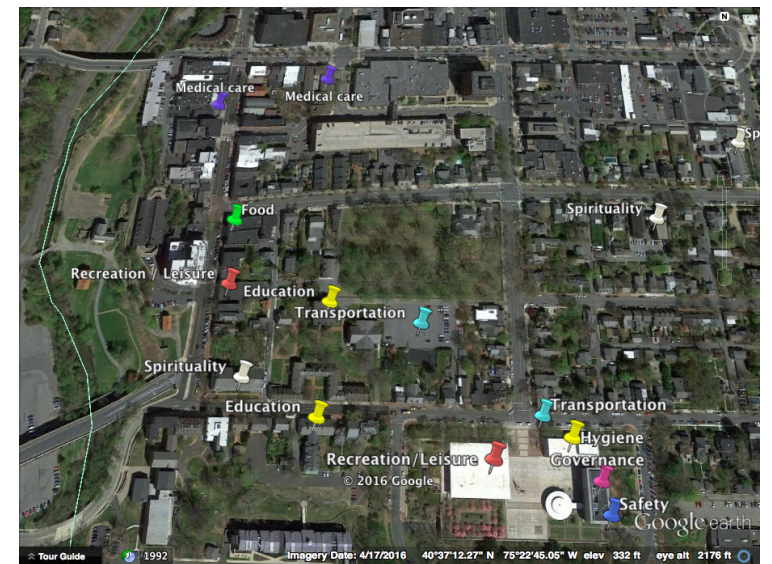
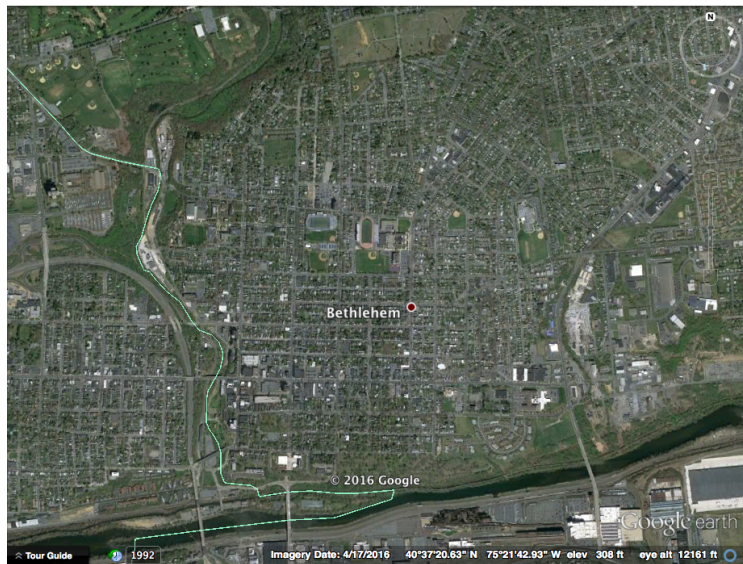
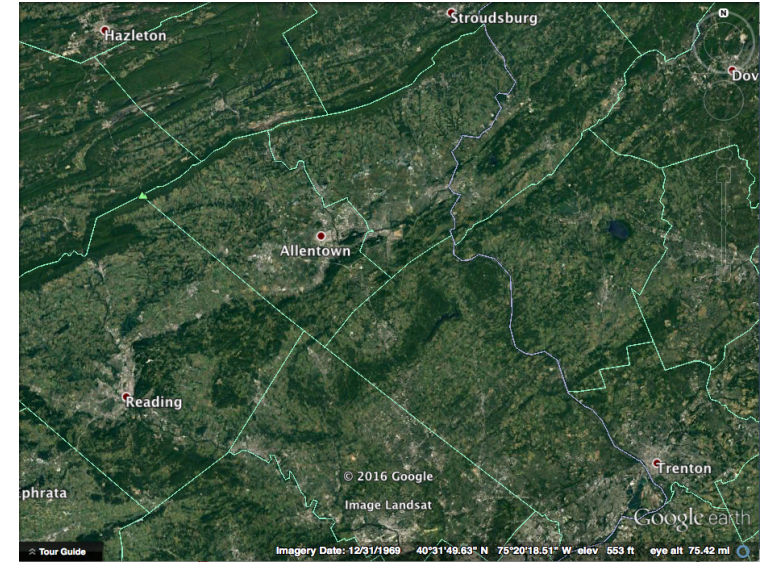
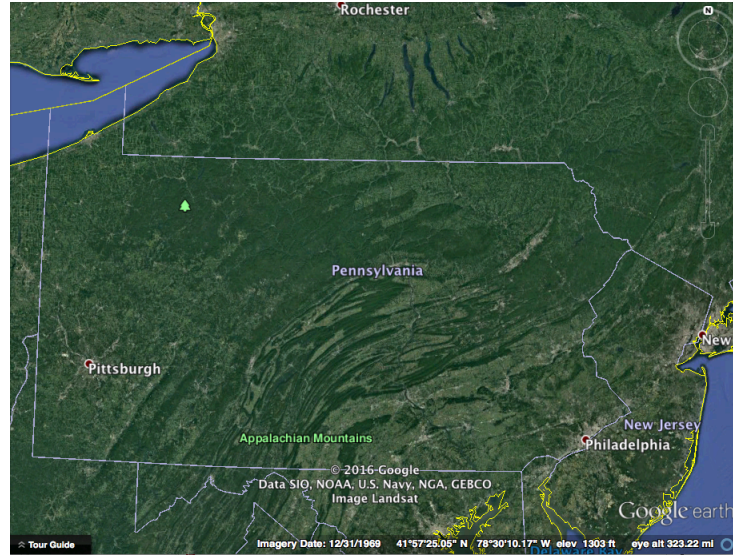
Hammond / Oltman, Lehigh University, Spring 2015

After:
Go home
and do it
again!



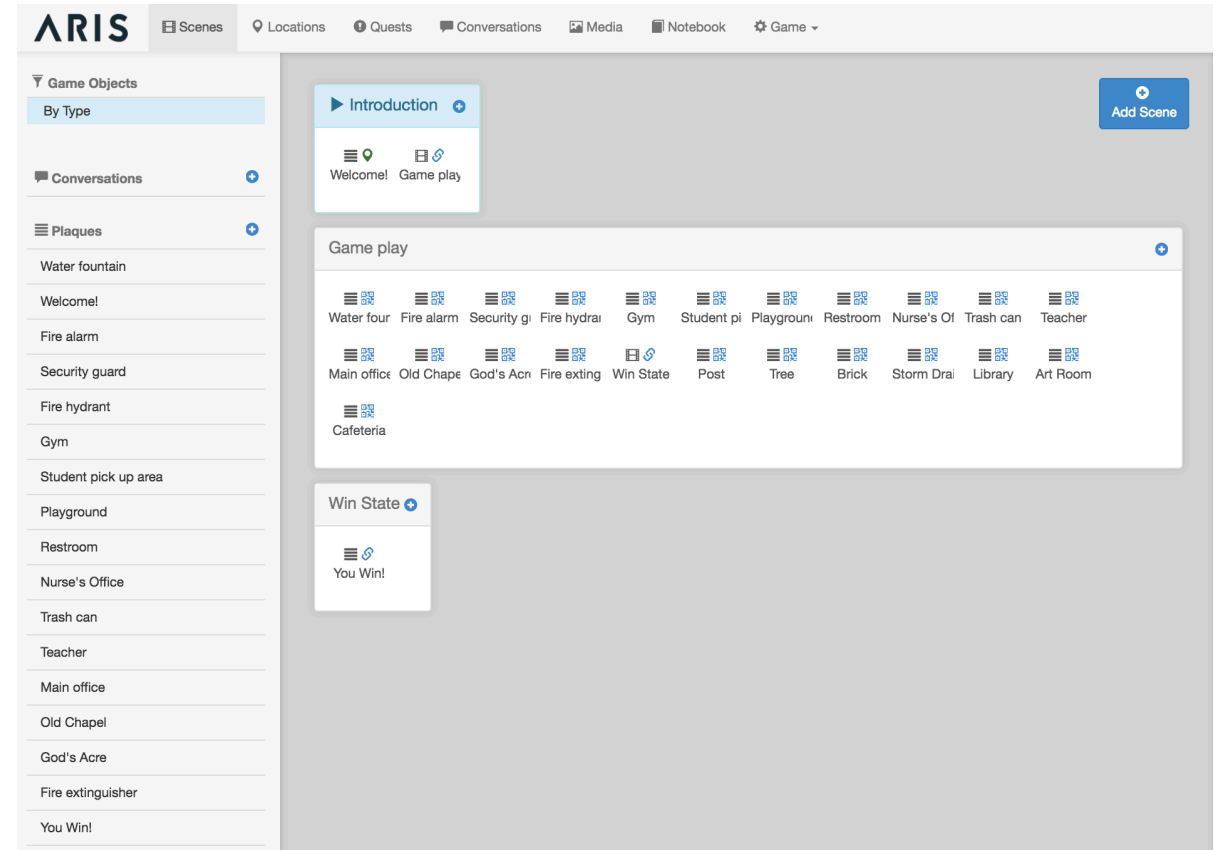
LET'S GO PLAY!





THE BUILD WITH ARIS

- (Template: Scavenger hunt)
- Quests were “Needs”
- Players had to collect a certain number of each need to complete quest
- Game flaw:
No accountability for not knowing what need is being met

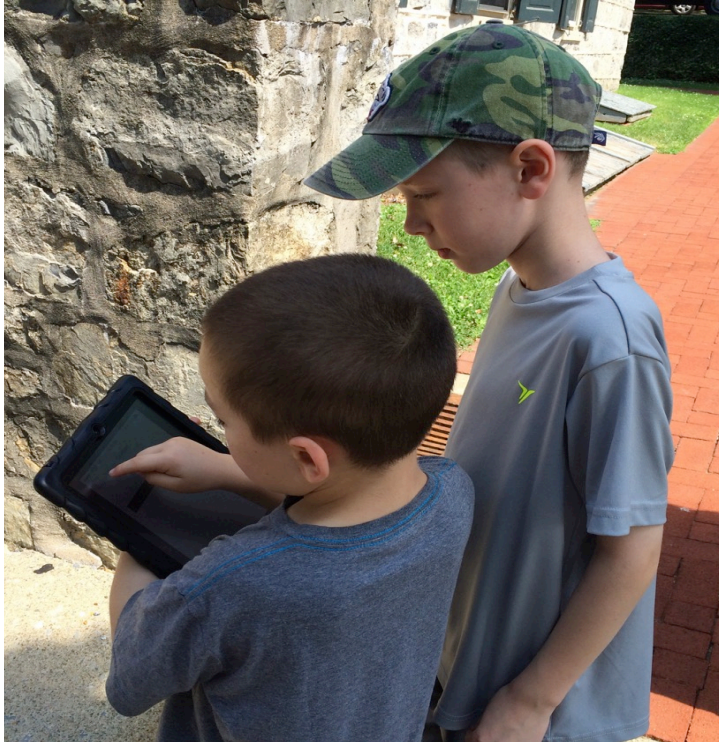


GREAT GOVERNMENT GURU GAME

- Designed for elementary students learning about the role of (local) government and private offices that support government interactions
- Game is played after class has had lesson on functions of government: a) **provide services**, b) **protect rights**, or c) **maintain order**
- Small teams of visit various locations and decide which function it serves
- If the team chooses correctly the first time, they earn more “Civic Credibility Coin”
- As teams earn more coins, they level up, ultimately becoming a Government Guru!

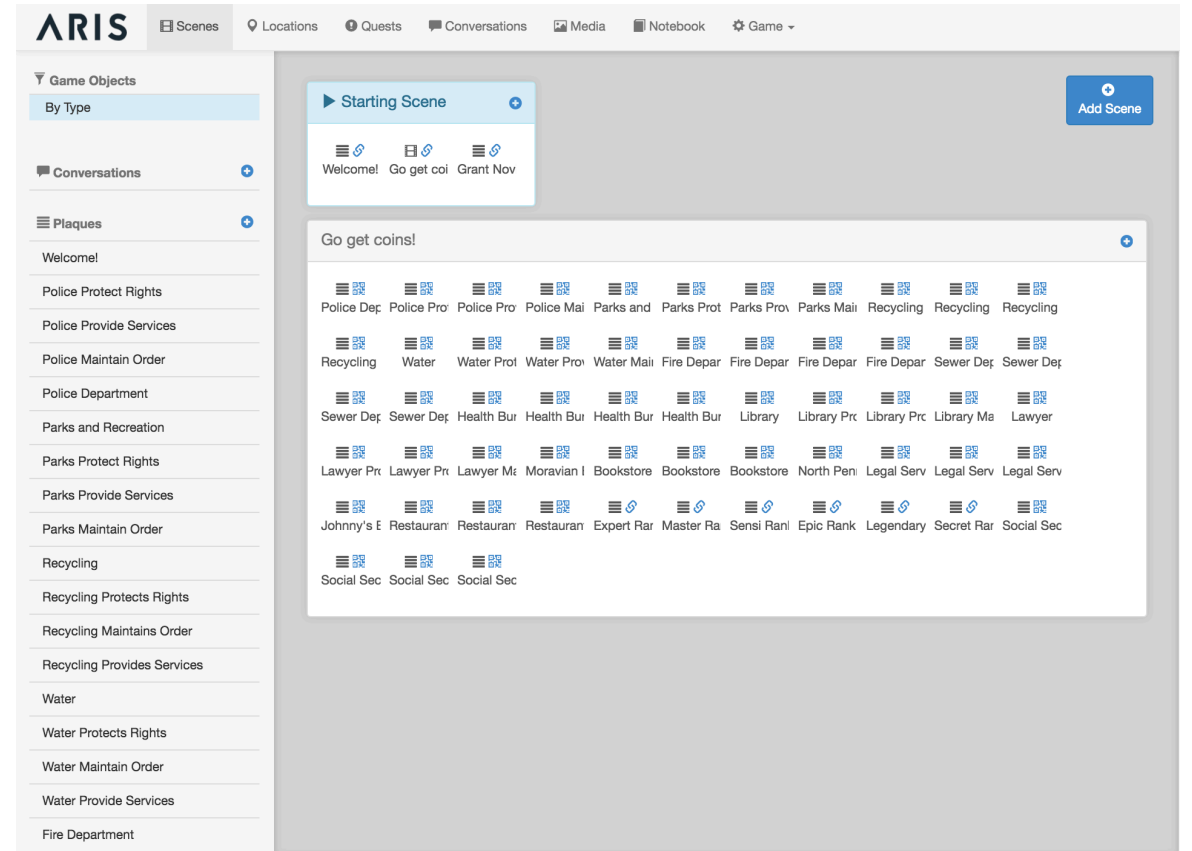


LET'S PLAY!

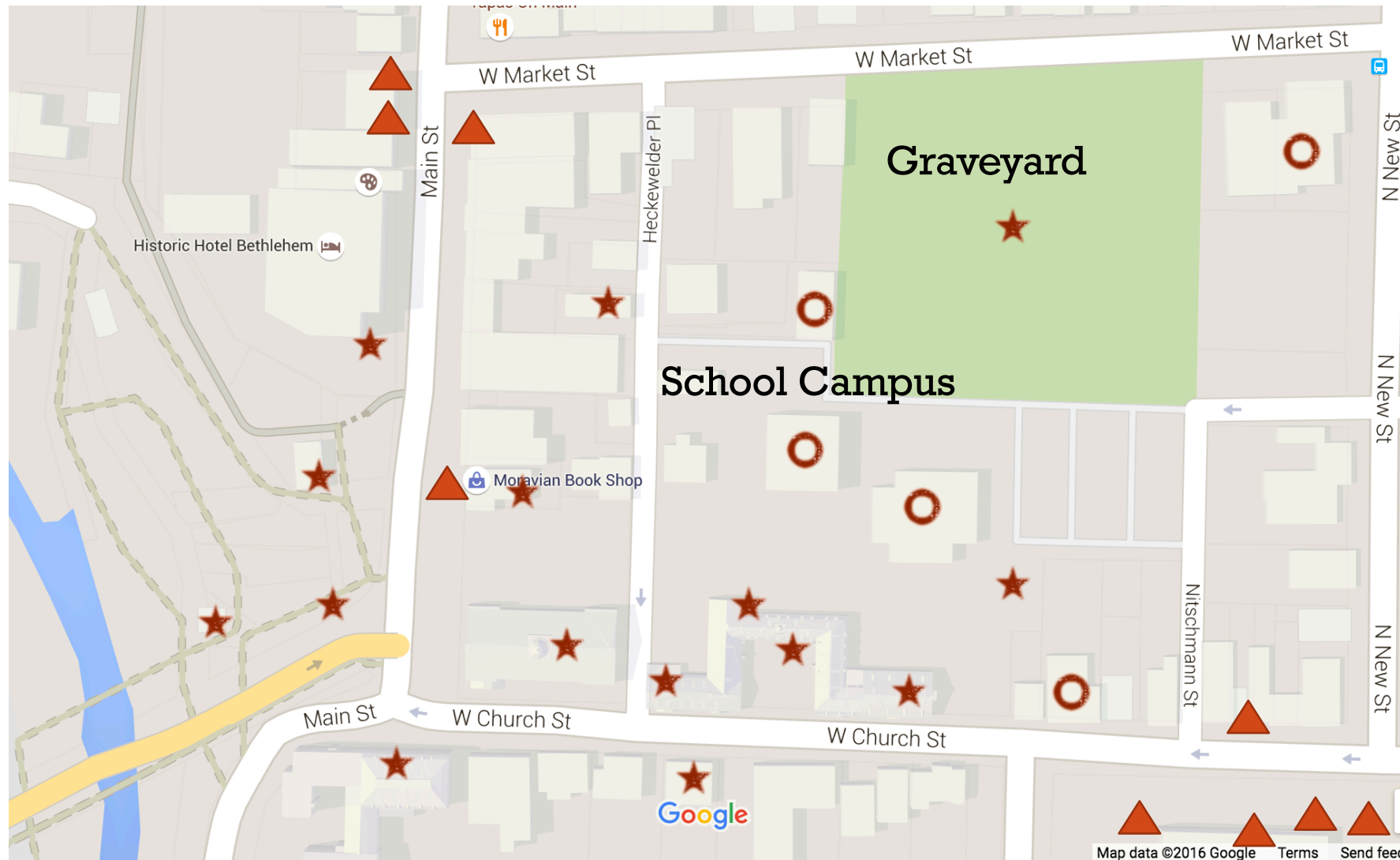


THE BUILD WITH ARIS

- (Template: Matching game!)
- (Logistical question: Do you have cellular connection?)
- 4 QR Codes for each location
 - title + 3 choices of function
- Correct answer = +30 coins
- Incorrect answer = -10 coins
- Levels = amount of coins earned



PORTABILITY OF GOVERNMENT GAME



★ Historical Sites

○ School Buildings

▲ Government Locations



MORAVIAN HISTORY MYSTERY

- Embedded within a long-standing curriculum unit
- 2 iterations over 2+ years
- Most complex game we've built – basis for dissertation research
- Utilizes GPS triggers



ORIGINAL CURRICULUM

THE FIRST HOUSE

The first house was made of Log.

One side of the house was for People.

The other side was a stable for animals.

Upstairs was a place to sleep.

Draw three Moravians in the room on the right.
 Draw a cow and a horse in the room on the left.
 Draw a little girl praying in the room upstairs.
 Draw two chimneys on the roof.
 Finish the picture your own way.



Dye house

The Dye house only has 3 walls standing. The building was next to the Grist mill. The Dye house only has three walls standing because it was from the colonial Moravian times and that was a long time ago. The dyes came from natural materials.

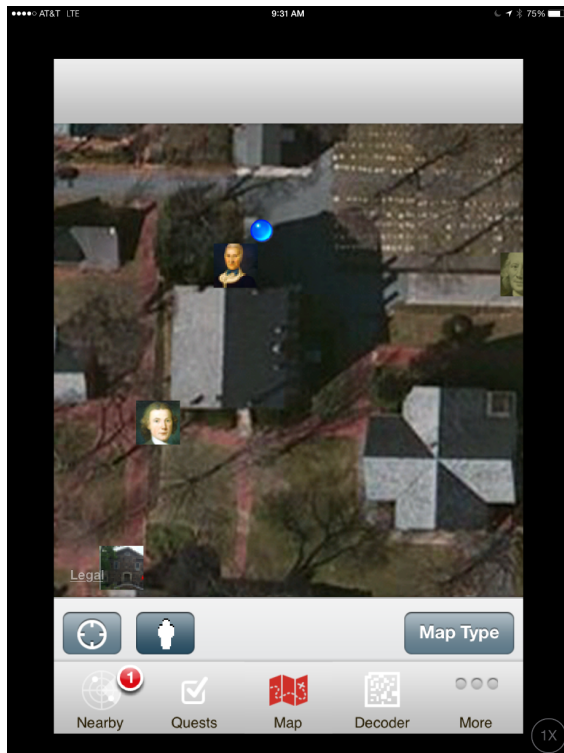


	We Know	We Think	Want to Learn
Favorites	different ribbons	Moravians are who wore what color	who wore what color ribbon
My Lessons	thresh wheat berries	all gone	
Tools	boys - barn - tools		year to arrive?
Board	gender different schools		how they built
	quills - ink - walnuts		Where did they live?
	German Doors		gardening?
	Women - hats		pets?
	child/yokes/H2O		Why Moravians?
	food wild - grew		
	different houses		

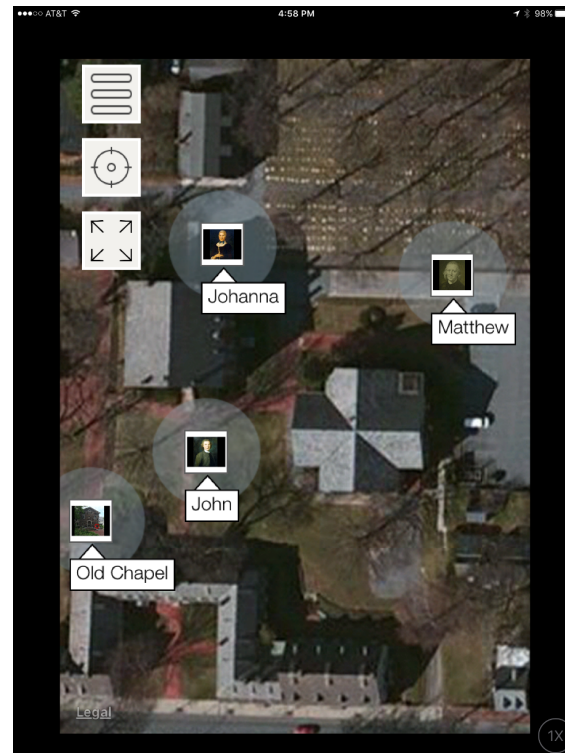


THE GAME

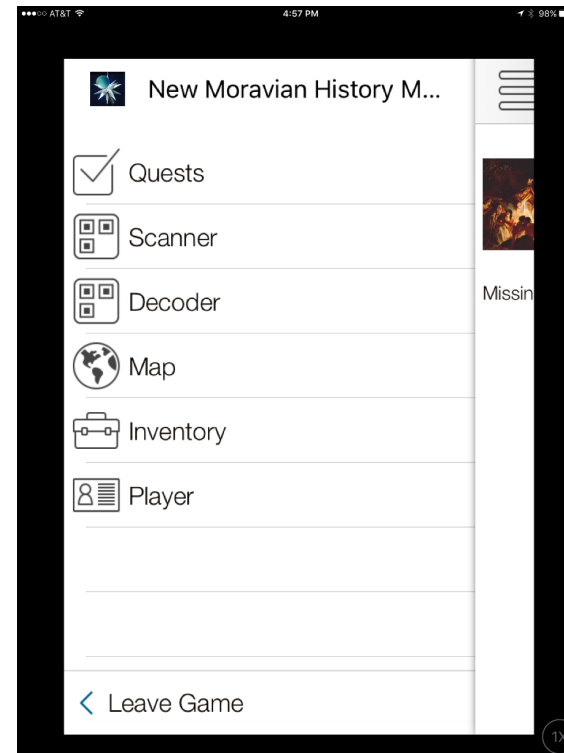
- Introduction in classroom
- Game played mid-unit
- Students played in pairs or triads



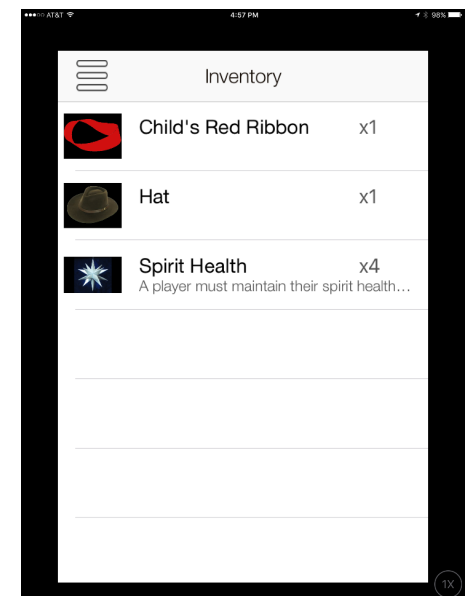
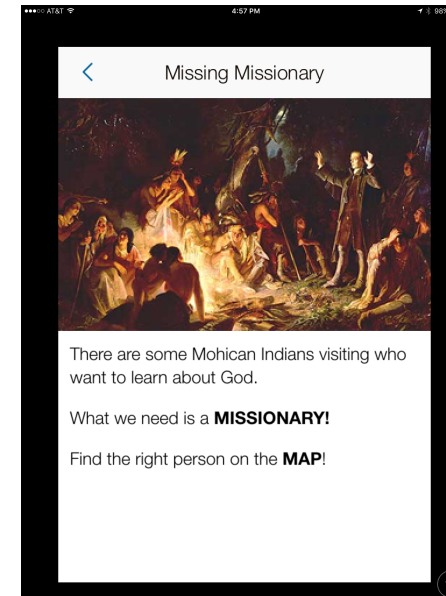
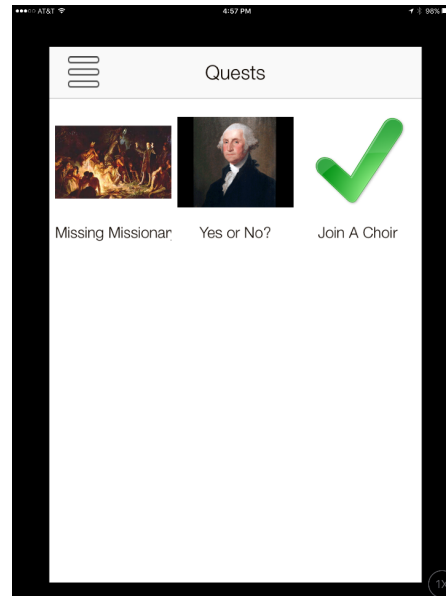
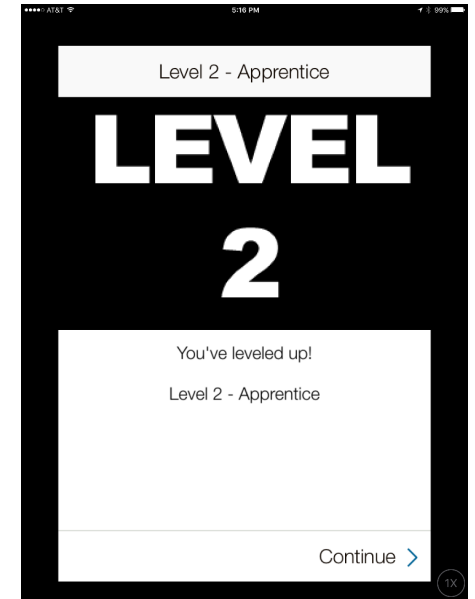
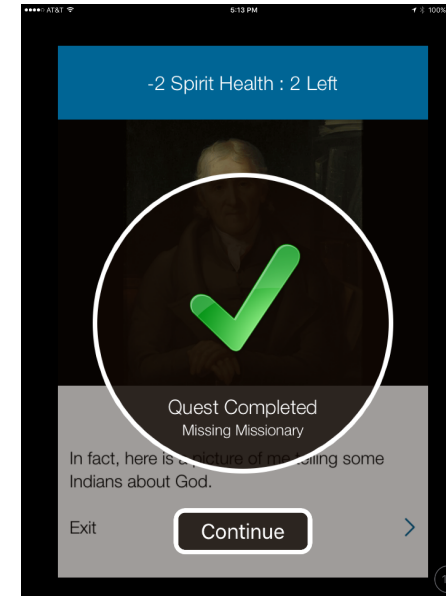
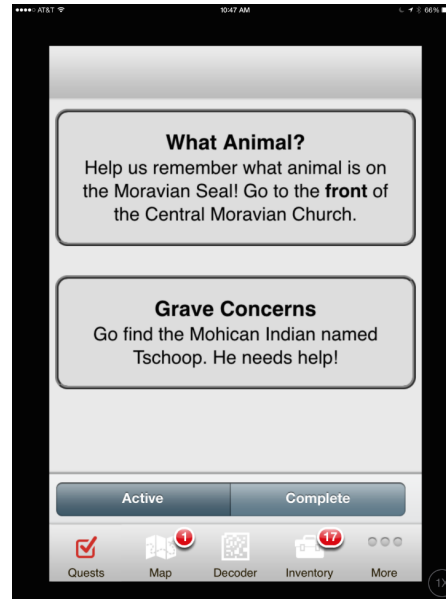
Year 1 Map



Year 2 Map



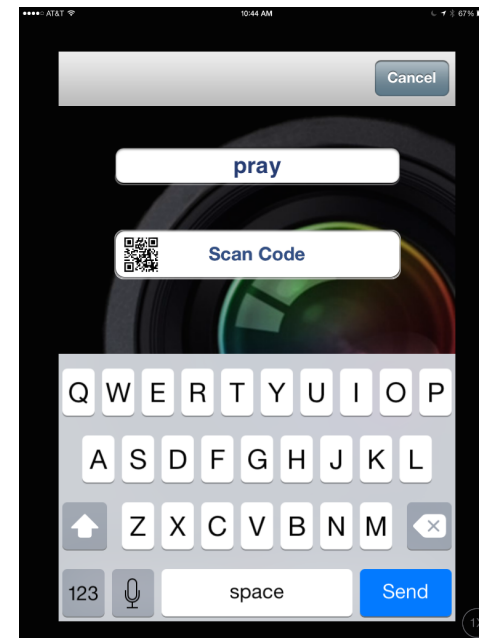
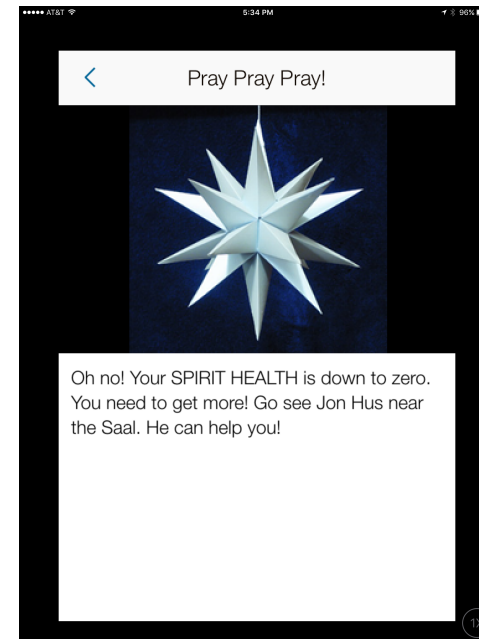
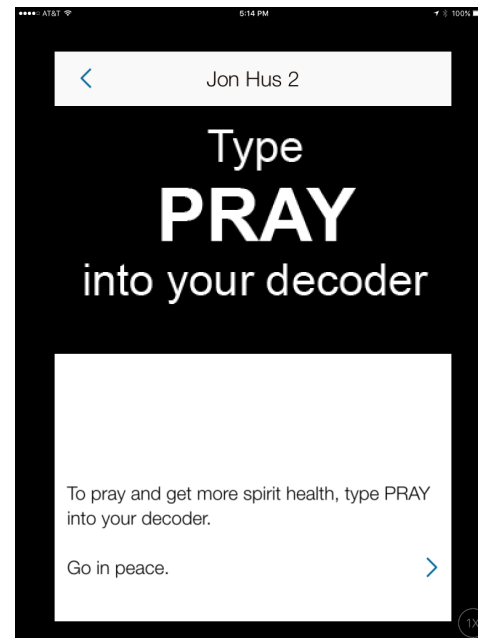
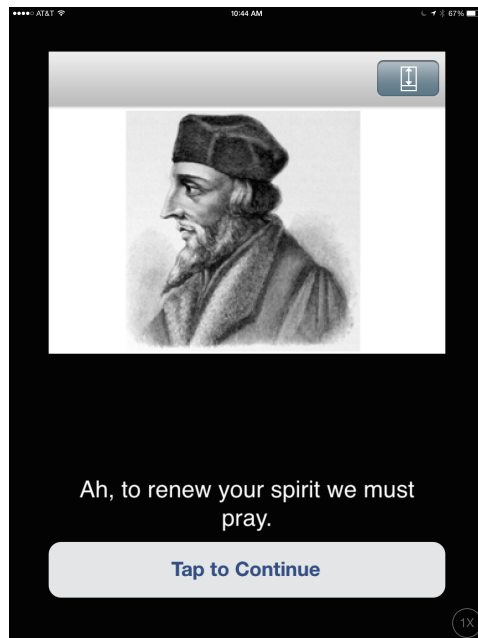
QUESTS, LEVELS, & INVENTORY!



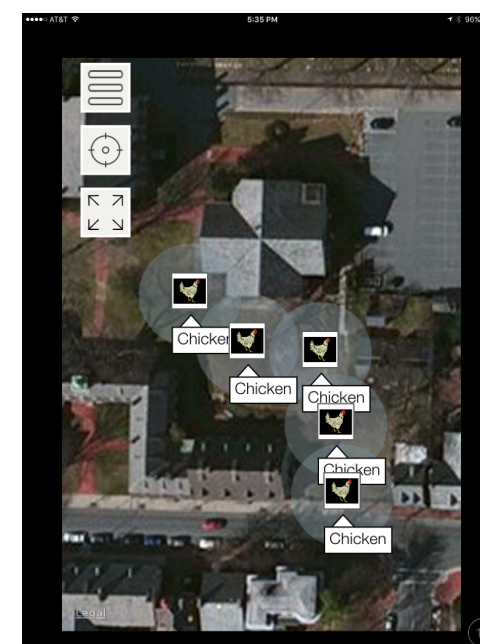
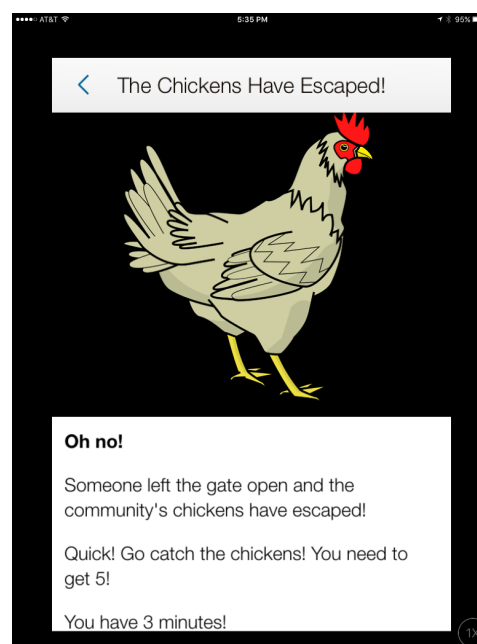
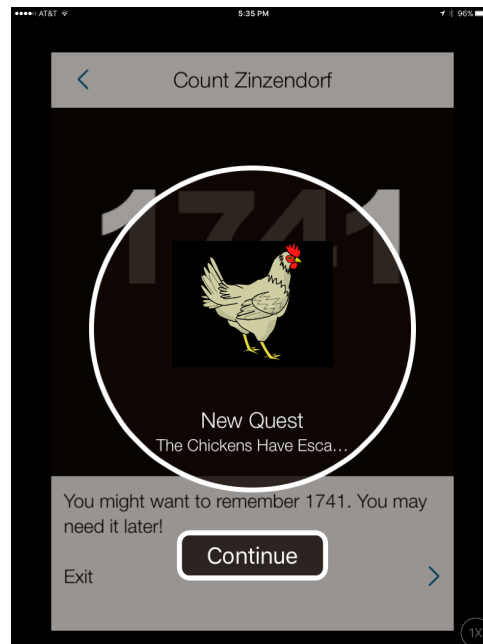
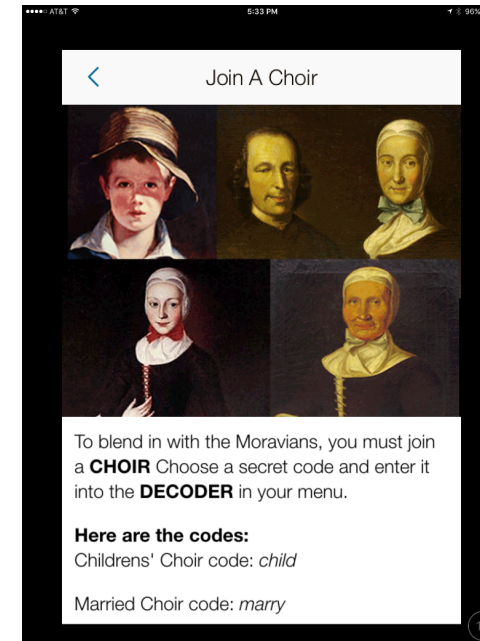
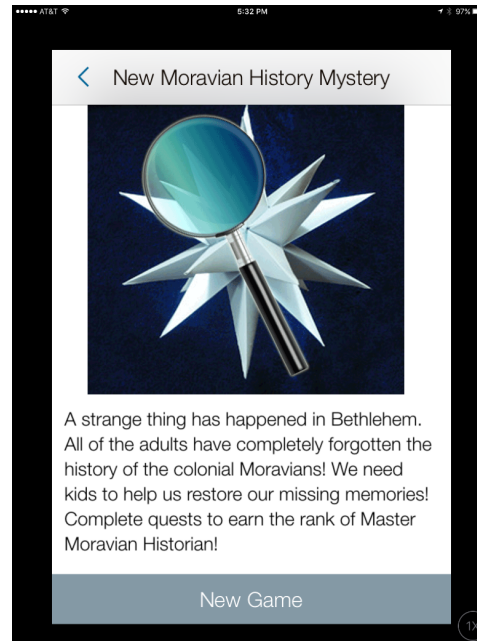
CUSTOMS OF SOCIETY



ACTION OF GAME

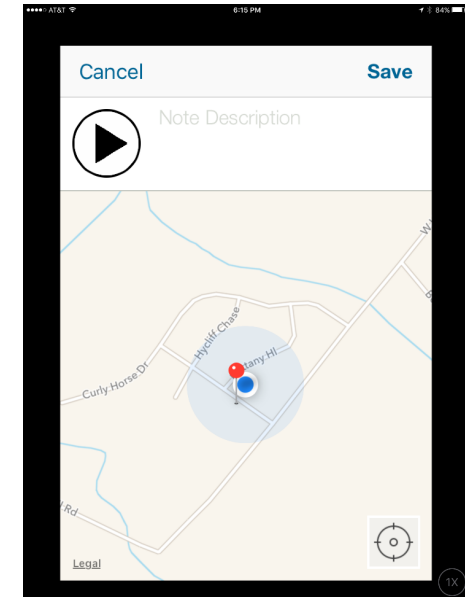
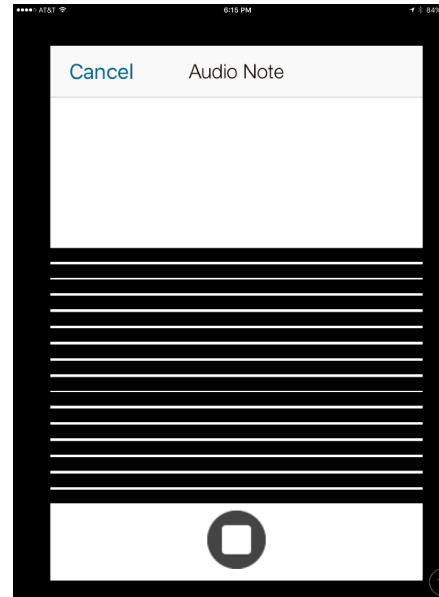
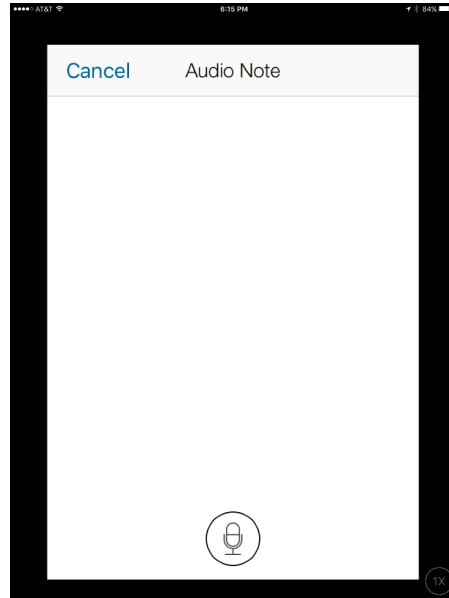
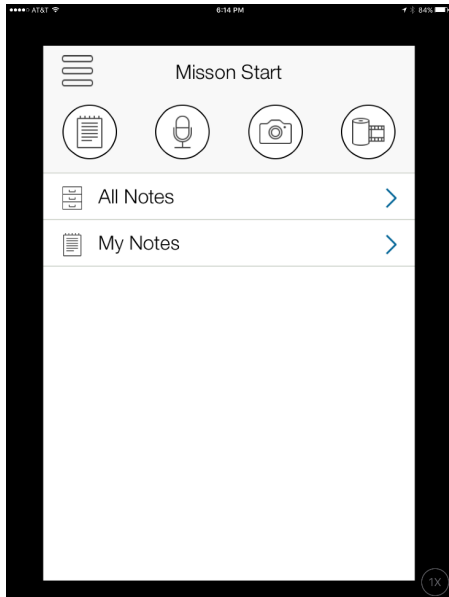
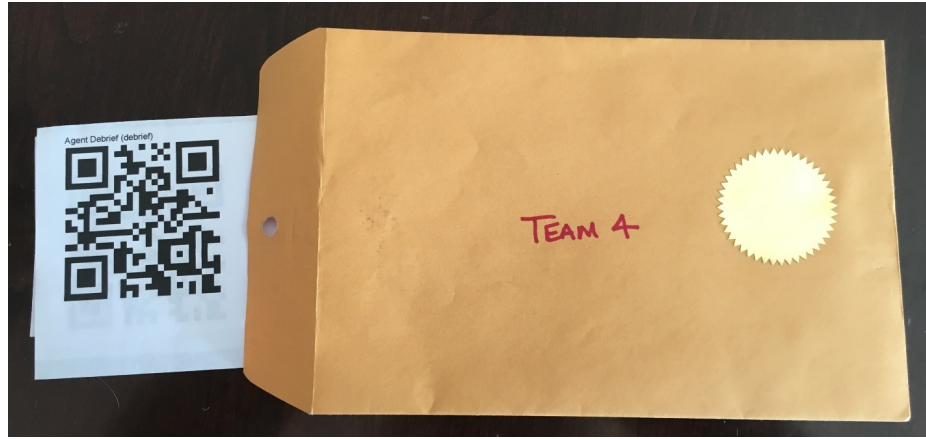


FEELING LIKE A GAME...



STEALTH ASSESSMENT

Pre and post gameplay



THE BUILD

- (Template = Minimally-structured quest game)
- Levels = scenes
- To balance logistics vs. social play, multiple quests included in one scene/level
- Level up by completing certain quests

The screenshot displays the ARIS game development interface. The top navigation bar includes 'ARIS', 'Scenes', 'Locations', 'Quests', 'Conversations', 'Media', 'Notebook', and 'Game'. The left sidebar, titled 'Game Objects', lists various elements under 'By Type', including 'Conversations' (with a plus icon), and a list of names: Matthew, John, Count Zinzendorf, Johanna, Bishop Ettwein, Tschoop, Widow Catharina, Count Zinzendorf, Bishop David Nitschmann, Susanna, John Heckewelder, Joseph, Joshua, Bishop Comenius, Countess Benigna, Samuel, John Hus, Tschoop 2, Tschoop Hint For Final Challenge, and Agent Interview Intro & Names. The main workspace shows a 'Starting Scene' panel with icons for 'Welcome!', 'Agent Inte', 'Agent Inte', 'Agent Inte', 'Agent Inte', 'Level 1', and 'Level 1'. Below this is a 'Level 1' panel with icons for 'Married Pl', 'Sisters Pla', 'Brethren P', 'Widow's F', 'Johanna', 'John', 'Matthew', 'Old Chape', 'True', 'False', and 'Pray Pray', along with 'Children's', 'Agent Deb', and 'Agent Deb'. Other panels include 'Pray Pray Pray', 'Level 1 - part 2', 'Out of Spirit Health', and 'Level 2'. An 'Add Scene' button is visible in the top right corner.



CONVERSATIONS & LOCATIONS

ARIS Scenes Locations Quests Conversations Media Notebook Game

Characters

- You
- Matthew
- John
- John Heckwelder Preaching
- Count Zinzendorf
- Count Zinzendorf
- Johanna
- Bishop Ettwein
- Bishop Ettwein
- Jon Hus
- Jon Hus 2
- Tschoop
- Widow Catharina
- Widow Catharina
- Widow Catharina
- Bishop David Nitschmann
- Susanna
- John Heckwelder
- Joseph
- Joseph
- Joshua
- Joshua
- Bishop Comenius
- Countess Benigna
- Countess Benigna
- Samuel
- Samuel
- Zinzendorf Preaching
- Mission Control

Conversations

```

    graph TD
      Start([Start]) --> M1[Hello. How may I help you?]
      M1 --> Q1[Do you need help]
      M1 --> Q2[I have your keys!]
      Q1 --> A1[Yes, I do!]
      A1 --> C1[Continue]
      C1 --> M2[Can you go collect the keys to our 3 houses of worship?]
      M2 --> C2[Continue]
      C2 --> M3[You must pick them up in the right order! Oldest to newest.]
      M3 --> C3[Continue]
      C3 --> M4[You should now see them on the map]
      M4 --> E1[Exit]
      Q2 --> A2[Oh, thank you!]
      A2 --> C4[Continue]
      C4 --> E2[Exit]
  
```

ARIS Scenes Locations Quests Conversations Media Notebook Game

Location Triggers

By Type

Conversations

- Johanna
- John
- Matthew
- Count Zinzendorf
- John Hus
- Bishop Ettwein
- Tschoop
- Widow Catharina
- Count Zinzendorf
- Bishop David Nitschmann
- Tschoop's Ghost
- John Heckwelder
- Joseph
- Susanna
- Countess Benigna
- Joshua
- Samuel
- Bishop Comenius
- Tschoop
- Plagues
- Old Chapel
- Chicken
- Chicken
- Chicken
- Chicken
- Chicken
- Central Moravian Church

Location Trigger: Matthew

Latitude: 40.61971179133006

Longitude: -75.38002211208345

Availability Range: 12 Meters

When in range, trigger: Immediately

Show Title: Matthew

Save Delete Cancel



GAME DESIGN IMPLICATIONS

For **young** learners:

- Geospatial skills require significant scaffolding
- Reading requirements needed to be both grade level & not distracting to gameplay
- Video content was not received well in initial testing
- Certain game mechanics were popular & well received: 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



BUT WAIT – THERE'S MORE!!

- More games for the classroom: Ellis Island / Angel Island game
- At PETE&C: Dr. Scott Garrigan's sessions
 - Poster Tomorrow – “Lessons Learned Creating A Game with ARIS”
 - Earlier Today – “Design and Program a Mobile Game with ARIS”
- Other Lehigh-affiliated scholars:
 - Denise Bressler
dmbressler@gmail.com
 - Farah Vallera
<https://sites.google.com/site/farahlvallera/>



QUESTIONS?

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