

M5 GDD_Group 1 Let's Get Moving

Game Summary

Working Title	Let's Get Moving: Group 1
Game Type	Adventure Learning (outdoor exploration) Reference Source: http://www.irrodl.org/index.php/irrodl/article/view/755/1435
Game Genre	Earth Science Content-based game Game-based learning interactivity with gamification elements; Inquiry based learning applying the <i>scientific method of inquiry</i> : <ol style="list-style-type: none"> 1. ask questions (form hypothesis) 2. Make predictions > conduct experiments to test hypothesis 3. gather data > analyze data > draw conclusions > communicate results
Game Platforms	Storyline/PC/Mobile
Game Description	The user will travel with a Robot Professor back in time to learn about the how processes of deposition and erosion change land over time. The user will travel to four different areas to see the how wind, water, waves, and glaciers changes the Earth by the building up and tearing down of it's surfaces .
Game Goal	<p>The goal is for the player to collect passport stamps as he or she time travels through each of the four (4) different geographical areas: (a) ice; (b) wind; (c) water; and (d) (a) wind; (b) water; (c) wave; and (d) glacier. In order to win the game, passport stamps for all earth destinations must be earned/collected.</p> <p>Collect stamps for passport; trip; itinerary; get to all destinations; professor travels back in time; any point in geography - use robots too dangerous for human</p>



Sharon A. Taylo...

12:32 PM Oct 16

Resolve

Which story? Robot Prof or dog + robot?



John Allan

5:45 PM Oct 16

This was an early post I think. Let's reference the story at the bottom. I can revise this if needed.



Shawntae Brown

6:37 PM Oct 17

Resolve

So it will not be Glaciers? My prototype

	Collect stamps for passport; trip; itinerary; get to all destinations; professor travels back in time; any point in geography - use robots too dangerous for human
--	--

Target Audience	Middle-School Students; 6th, 7th, and 8th grades Science Students: Osceola, Okeechobee, & Volusia, Florida County School Systems
-----------------	--

Game Structure Describe your design for each game element.

Game Element	Description
Action/Interactivity	<ul style="list-style-type: none"> Navigation buttons <ul style="list-style-type: none"> World Map Start Screen <ul style="list-style-type: none"> Resume Game Difficulty Selection Audio Controls <ul style="list-style-type: none"> Mute/Unmute Levels Video Controls <ul style="list-style-type: none"> Play Pause Interactivity <ul style="list-style-type: none"> View dynamic content Make informed predictions <ul style="list-style-type: none"> Move Sliders to estimate 'landing' from portal jump (i.e. will there be a Slip face or Seif?) Stack Objects (accomplished on the backend by leveraging using image-matching features in articulate)



Shawntae Brown

6:37 PM Oct 17

Resolve

So it will not be Glaciers? My prototype that I REALLY am struggling with is talking about how glaciers (which I guess is really just ice) changes the land. I am leaving tomorrow on my 20th anniversary trip. I will just submit what I have and I will work on it later. I do not know how to add the interactions I envisioned so I will just describe it and work in it when I get back on the 24th!



Sharon A. Taylor, PhD

8:34 PM Oct 17

Shawntae,

Congratulations on your 20th anniversary and enjoy your special time away!

Yes, please submit what you have into the PBWorks site, and we'll figure it out when you return. Thanks for your time and effort on this group project!

Sharon



Sharon A. Taylo...

12:52 PM Oct 16

Resolve

hierarchical levels for the four elements?



John Allan

5:47 PM Oct 16

This is a good question. I would say within each element/destination, there are sequential interactions that must be completed in order (i.e. 1. land Fate's V-Bot 2. Get V-Bot to a Canyon to view erosion). However, the user can begin at at any element/destination



Sharon A. Taylo...

12:52 PM Oct 16

Resolve

will the passport stamps resemble the four elements > wind, water, waves, and glaciers?

Consequences	<ul style="list-style-type: none"> Incorrect Answers* <ul style="list-style-type: none"> Drain Robot's Fuel 1x wrong answer: user receives updated feedback from Fate 2x wrong answers return to previous question in the same unit. User receives updated feedback from Fate 2x wrong on first unit return user to World Map and 'fades' the Previous badge earned (as if it's being erased from existence!). User receives updated feedback from Fate If no badge has been earned yet, 2x Wrong answers asks user if they'd like to change Difficulty <p>*Adjusts based on difficulty.</p>
Rules	<ul style="list-style-type: none"> User can select any unit from world map At any time user can <ul style="list-style-type: none"> Return to world map View content information to make informed decisions Ask Fate for more information and receive a hint Change difficulty Save their progress



Courtney Campbell

3:07 PM Oct 16

That actually sounds like a great idea.



Sharon A. Taylo...

12:37 PM Oct 16

Resolve

Text-based information available (e.g., player's choice to click on/off?)- to accompany audio > adhere to Section 508 accessibility standards? Or not?



John Allan

5:20 PM Oct 17

I don't know if articulate has a caption ability. I'll look into it. I definitely want to produce audio. If nothing else, I can make a transcript.



Nicole Emert Topping

8:23 PM Oct 17

If we use Storyline 360, we can add the captioning in with toggle on/off. If not, we can just put the transcript in the notes and have it be a tab they can view.



Sharon A. Taylo...

12:40 PM Oct 16

Resolve

drag-and-drop interactivity? observe phenomenon > answer questions by interacting with something (i.e., fewer quizzes)?



John Allan

5:22 PM Oct 17

Yes, the drag/drop function in articulate can be 'hacked' to make puzzle games or 'match the correct object' tasks easy to create. The object stacking is just one example. After viewing the examples, I think having the learner answer questions along the way (in a fun creative way) will work well.




Nicole Emert To...

8:31 PM Oct 17

Resolve

	<ul style="list-style-type: none"> ○ Change difficulty ○ Save their progress ○ Exit game ● Landings have an 'acceptable range' * <p>*Adjusts based on difficulty.</p>
--	---


Scoring	Students will answer five questions (both multiple choice and short answer) worth 1 point each. Students must score at least $\frac{4}{5}$ to progress to a new area on the map. The multiple choice and short answer questions will be based on the some of the questions from the "Let's Get Moving" exit ticket sheet.
Progress	<p>Progress is determined by students earning different passport stamps/badges as they travel to different regions on the map demonstrating their knowledge of how water, waves, wind, and glaciers shape the earth's surface.</p> <p>Students must earn all four (at least) passport stamps/badges to win game.</p>



Nicole Emert To...
 8:31 PM Oct 17

Resolve


I noticed in the flow chart at the bottom, there's verbiage that on the second attempt, there is an option to "move forward" - just making sure this is not contradicting that.



Sharon A. Taylo...
 12:42 PM Oct 16


Resolve

love this! Will it be visual for the player to watch drain as it happens?



John Allan
 5:22 PM Oct 17


I'm definitely going to try. I know it will involve variables (ughhhh).



Sharon A. Taylo...
 12:43 PM Oct 16


Resolve

text-based pop-up? Audio cue/Sound > buzzer or negative beep?



John Allan
 5:24 PM Oct 17


I actually don't know the research about this. Though, I'm sure obnoxious sounds should be avoided.



Sharon A. Taylo...
 12:41 PM Oct 16


Resolve

back to start of level?



John Allan
 5:25 PM Oct 17

So, I'm picturing levels like this: Locale 1-4 in any order. All Locales have 4-6 activities not including a short quiz. A final cumulative quiz may be included.



John Allan
 5:25 PM Oct 17

All must be completed to finish the game

Feedback	<p>Instructional feedback will be provided.</p> <ul style="list-style-type: none"> • Pretraining drag-and-drop: students will be notified if they correctly/incorrectly placed the photos in the photo album. After incorrectly placing photos, they will be prompted to repeat the pretraining section. • Erosion lab will begin with a tutorial of the controls and their function using popups and hover. • Level 1 difficulty case will provide guidance through steps of answering the call for help, the use of the erosion lab, analysis and completing the report. • After completing a case report, the student will be provided feedback by either being prompted or asked to try again.
Goal	<ul style="list-style-type: none"> • Obtain all passport stickers as proof to show robot professor to earn travel to return to the future.

Narrative

Main Theme: The learner guides a time-travelling robot (an avatar) to visit geographic destinations. They must visit all their destinations to collect stamps for the robot's "passport" before it can return to the future.

Note: the 'professor' provides a convenient didactic proxy i.e. someone that can instruct the learner and provide clues. Additionally, selecting a human agent to speak through the robot allows us to provide audio narration that's preferable to impersonal voices and tones.

Story: As things would have it, your dog has uncovered something shiny and metallic while out on a stroll. Could it be? Indeed, a robot springs to life before your eyes. The voice -- oddly

 **Sharon A. Taylo...**
12:41 PM Oct 16 [Resolve](#)

love this consequence ;)!

 **Nicole Emert To...**
8:30 PM Oct 17 [Resolve](#)

+johnallan1@mail.usf.edu This is some intense variable coding for Storyline - I love it! Happy to get started on the logic tree for these.

 **Sharon A. Taylo...**
12:43 PM Oct 16 [Resolve](#)

Yes! I agree there should be a hierarchical level of difficulty ;).

 **Sharon A. Taylo...**
12:44 PM Oct 16 [Resolve](#)

hummm... should there be a hierarchical level of difficulty, which aligns w/applies gamification strategies?

 **John Allan**
5:27 PM Oct 17

There is a rocket simulation that uses little green men, HOWEVER, there' a difficulty setting that makes the physics 'realistic' and therefore more closely aligned with PBL -- is that kinda what you mean?

 **Sharon A. Taylor, PhD**
6:14 PM Oct 17

I was just thinking a simple image of a rocket hovering on one screen; then the robot appearing on the next, as though it had landed.

 **Sharon A. Taylo...**
12:50 PM Oct 16 [Resolve](#)

Will the passport and stamps be reflected in an upper or lower corner on each screen, so the player knows where (s)he is in the processes of game-play? For instance, at the start

before it can return to the future.

Note: the 'professor' provides a convenient didactic proxy i.e. someone that can instruct the learner and provide clues. Additionally, selecting a human agent to speak through the robot allows us to provide audio narration that's preferable to impersonal voices and tones.

Story: As things would have it, your dog has uncovered something shiny and metallic while out on a stroll. Could it be? Indeed, a robot springs to life before your eyes. The voice -- oddly human -- greets you and explains its origin. Her name is Fate and she thought she'd lost contact with her "V-Bot" -- people in the future use them to vacation in time! There's just one big problem: Fate's "V-Bot" got stuck in *your* time and never finished its' original itinerary. Fate's V-Bot still has (at least) four destinations to visit. You'll have to be her travel agent. It won't be easy. Before you can warp to the next location, you must first consider what might happen to the landmasses at each destination. Will Death Valley be a vast stretch of freshwater lakes? Will Niagara be an arid desert? Making things even more complicated, Fate's V-Bot has a limited number of 'jumps' it can make. You'll need to make some tough decisions along the way. Luckily, Fate's a scientist -- we're all scientists in the future -- and she's full of information. You'll have plenty of clues so you can get the V-bot back to Fate!



Sharon A. Taylo...

12:50 PM Oct 16

Resolve

Will the passport and stamps be reflected in an upper or lower corner on each screen, so the player knows where (s)he is in the processes of game-play? For instance, at the start of the game, the entire passport could be shown with four greyed out stamps. Then, the stamps earned would appear in full color after successfully completing each of the four tasks (wind, water, wave; & glacier) w/the greyed out stamps still shown for the elements that need to still be earned. At the end, the full-color passport encompasses the entire screen w/a congrats and End Game notification.



John Allan

5:29 PM Oct 17

Yes, I imagined it would be represented somewhere on the screen. I just realized today that "prestige" could be earned -- this would look like a gold border around the stamps. You could earn the border by 'rolling the dice' so to speak and answering an additional question that DOESN'T provide feedback to the learner (they must figure it out).



Sharon A. Taylor, PhD

6:15 PM Oct 17

Interesting. Should we keep this in mind after we get everything else done? Or, make it a priority upfront?



John Allan

6:32 PM Oct 17

I'd worry about implementing it later in a draft down the road.



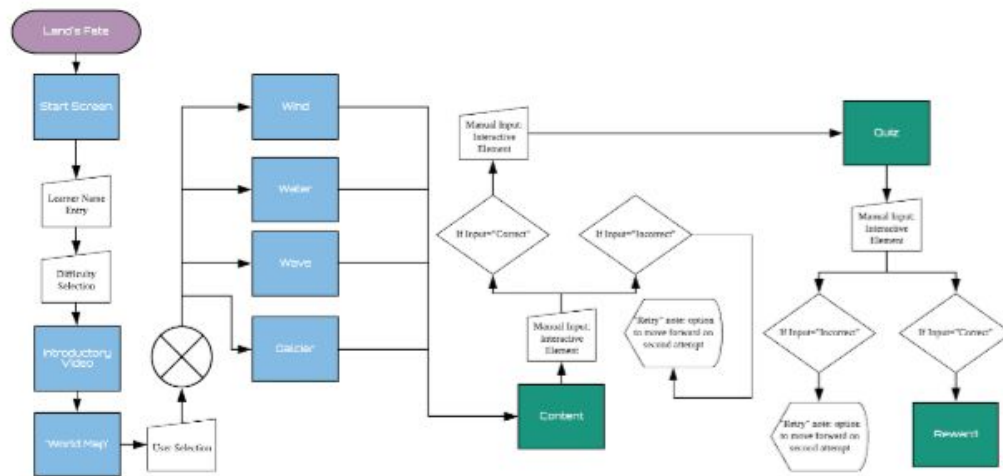
Sharon A. Taylo...

12:59 PM Oct 16

Resolve

another idea is for the drag-and-drop elements to not 'stick' in place or not move; or bounce back into place w/a visual (text-based 'incorrect, please try, again) or auditory cue (buzzer).

Suggested Game Flow Diagram



Sharon A. Taylo...

12:59 PM Oct 16

Resolve

another idea is for the drag-and-drop elements to not 'stick' in place or not move; or bounce back into place w/a visual (text-based 'incorrect, please try, again) or auditory cue (buzzer).



Sharon A. Taylo...

1:00 PM Oct 16

Resolve

love this! Will it be interactive? Or a just a demonstration?



Sharon A. Taylo...

1:00 PM Oct 16

Resolve

prompts and cues?



Sharon A. Taylo...

1:01 PM Oct 16

Resolve

hummm... interesting. What do you have in mind for a case report?



Sharon A. Taylo...

1:02 PM Oct 16

Resolve

end of game > successful completion
> show robot lifting off into space and/or returning to space craft then taking off?



Sharon A. Taylo...

1:03 PM Oct 16

Resolve

start of game > spacecraft hovering w/robot exiting to earth to explore?



Janice Klages

10:07 PM Oct 16

Resolve

Great flowchart!



Sharon A. Taylor, PhD

11:06 AM Oct 17

Agree ;) Great flowchart! Thanks, John!