

COVER LETTER: EYE OF RA

Sarith Kim
Diana Stow
Robby Rajan
Joseph Cattalo
Stewart Coles

To all who replied to our detailed game level description/appendix,

Thank you for taking the time to review our document and offer your feedback. Below is a summarized list of the comments we received. Beneath each comment is a brief explanation of what we did to correct the problem, or why we feel that it isn't a problem at all.

*Thanks again,
Group 3*

Level 1: Underground Shopping

• I don't know enough about Egypt and how the scenery would look historically, but is your idea of the shopping area similar to what one would actually see in Egypt?

While we are trying to incorporate some historically accurate information into the game, there has to be a bit of fantasy mixed in with the history. The tents were modeled after those you would have seen many years ago, with a modern-day twist on the tapestry. However, the strip itself is indeed fantasy. It is an isolated strip in the middle of the desert that most people don't know about and cannot reach. Its road is made from dirt and stone, to make it seem more like an unpaved street. It was intentionally made to look like an out-of-place street in the middle of a desert. A picture has been added to page A3 of the Proposal Document, which will hopefully provide a better understanding.

• As you get to the actual start of the game, there is quite a bit of text displayed on the screen. Will there be sound if the student does not have that high a reading level or are you expecting the students to have a minimum reading level to use your game?

Since the game is targeted towards 6th to 8th graders, there is a minimum reading level (of an average 6th to 8th grader) expected, but not needed, of the player. There is no dialogue in the game that should pose a problem to children at that grade level. However, if there is a problem with the reading level, there will be a sound option available that will read the dialogue, for those who have speakers and a soundcard. The text will still remain on the screen regardless of sound being off or on. Please see "Art and Audio Highlights" on page 12 of the Proposal Document.

- Can you give some examples of descriptions that students will get to select the items? What kind of descriptions are on the scrolls? Is this a place where they need to be able to identify rhombuses, quadrilaterals, etc? How will they be described?

Some examples of the items description will be “the backpack is a parallelogram with four congruent sides” or “the laser ruler is a polygon that has four sides.” The scroll will consist of descriptions of shapes such as rhombuses and quadrilaterals. Please see page A3 in the Proposal Document for further details.

- On page 3 you say, “Leaving without <whatever is missing> could be fatal.” Does this mean it would be possible for them to leave without everything? So it might mean that they can move up a level or two but eventually they won’t have the supplies they need, so that that point would they get sent back to the first level?

The game will not allow a player to leave the shop without all of the needed supplies. We do not want the player to have to backtrack in the game. To stop this from happening, the game requires the user to collect all of the tools required. If s/he does not purchase the items, the guide will not let him/her leave the shop.

- How much time is spent shopping? I realize that the detailed description takes longer than the actual playing time. It would be amusing to see the player being blown back into the game if they tried to enter the desert too soon!

Since there is no game clock the student can spend as much time as they want at the shop. This game is not intended to be a race against time. S/he will set his/her pace while playing the game. Our game is a learning tool, so we don’t want students to feel pressured by a clock.

Level 1: Journey of 1,000 Camels

- The pyramids in the graphics don’t appear to be in proportion to the real pyramids of Egypt. I picture the real ones as being a bit more “squatty”, although I could be wrong. Again thinking about historical accuracy... Also, cacti were mentioned in the description, and although I don’t know what the plants of the Sahara desert look like, I know they are different from the American Southwest. So you might consider geographical plant habitat accuracy as well.

Good observation. After further research, cacti will be replaced with “indigenous perennial plants located in a few scattered oases throughout the desert.” For the sake of accuracy, there are indeed cacti that grow in the Sahara, though much more sporadic than those that grow in American deserts. They include the African Peyote cactus and the African Sombrero cactus. In our game, the majority of the Sahara Desert will be portrayed as a barren wasteland of rocky plateaus and sand.

- Charge by the hour? Real time or ‘game’ time? Is there a running clock on the screen for students to know the amount of time remaining?

This comment was originally inserted as game humor. As we have all seen from this question, there can be problems getting a joke to translate through text. As a result, this comment has been removed from dialogue. Also, there is no running clock in this game. It is not a race against time, rather a race against the enemy.

- It sounded like pictures of the shapes would be displayed in the corner of the screen. Are the students showed pictures of these and/or just given the name of the item to find? It would be more challenging to have them identify the shapes based on the name and properties of the shapes vs. just identifying the matching shape based on a picture. Will the students need to be able to rotate the shapes to make sure they match? Or will they be lying in the sand in the same orientation as the targets? Or do they merely need to pick up the bones and if they get the right ones the shapes in the upper right hand corner will change colors to show that they fit? If I understand it correctly, when they are in the desert, students will need to find shapes whose images are displayed on the top of the screen. Is that right? Do you think something a bit more challenging for a 6-8-th-grader (from the geometry point of view) could be incorporated here? This is just way beyond the expectation of what a middle school student would be learning.

By giving students a simpler puzzle to begin with, they will see the increase in difficulty. The purpose a video game is to increase the challenges to the players so they can see their improvement. Otherwise, the player will stop playing as it will become dull when they find the puzzles to remain on the same level. This simpler puzzle will also act as a short review before moving into harder material, if a player can not get through this, they need a lot of work before heading into more difficult work.

Students are identifying different shapes by their properties in the store earlier in the level. In that part of the level, students will be given a list with different descriptions (number of angles, number of sides, types of angles, color, etc.) where they will need to pick out products in the store. The player should not be completing too many tasks that are asking the same thing; otherwise they will become bored with the game.

In regard to the game level itself, students will be shown the actual image when they approach the pyramid. It will have the pieces missing shown so they know what they are looking for. The challenge for this game is getting them interested in the continual play of the game. The pieces they find in the desert might not be sitting the proper orientation, but a simple rotation will allow students to be slightly challenged, but feel as though there is a level and a mission they can complete easily. For a further explanation of the above questions, see pages A6-A7 of the Proposal Document.

Design Document:

- **Level 2:** The very end: “one of these puzzles will involve basic rectangular shapes to build a bridge; the other will involve a combination ... of pieces to be put in the right order”. What exactly will be the directions for the two tasks? What knowledge of the shapes (terminology, properties) or what operations on the shapes will the kids need to know to follow those directions and complete the puzzles? I’m assuming you are thinking something bigger than a simple object matching puzzle. Is that true?

In this part, after Dwight/Rosalee gets past the first part of level 2, s/he stands in the middle and watches the floor around him/her collapse. To get to the other side and retrieve the piece of the Eye of Ra, s/he must use the various stones that are located next to him/her. The guide will tell him/her to build a bridge using these stones to get to the other side. The students will need to look at the shapes’ properties and see how they would relate in building a bridge. There are multiple ways to build the bridge. They might need to take two right triangles to make a square. If the player gets stuck, the guide is available to give hints, clues, definitions, etc. It is not a simple matching puzzle but yet it is a more challenging exercise to relate back to identify the relationships between shapes. Players must use visualization, special reasoning, and geometric modeling to solve this problem. Without proper planning, the student could fail the exercise. For further insight in the learning concepts explored throughout this level, please refer to our Learning Objectives for level 2.

- **Level 4:** It’s not very clear how students will use shapes to build the wall. Will they simply be instructed to use whatever shapes they want in whatever order and arrangement in order to fill the area of the wall? If so, what is the educational value? Will students need to know any terminology/properties of the shape? Maybe relationships between shapes (say, a request for a square can be fulfilled with 2 or more triangles)? You certainly don’t need to fully describe the flow of this level as you did for level one; the game part of this level is already described very clearly -- just make sure the underlying math has to be clear as well.

This level can be compared to Tetris in the way it builds blocks on top of each other. The pieces are put in place by starting at the bottom, and building up towards the top. Only in our game, you want fill up all the way to the top, and game pieces don’t vanish. There is no set order in which to use the pieces, but there is a limited supply. The reason for this is that a person could easily fill up the giant square using all right triangles, since two of them would form a square. Having a limitation on the number of objects will require the player use different pieces throughout the puzzle. The hexagon, for example, leaves several corners uncovered, which will need to be filled by the other shapes. The combination of shapes in the picture on page 9 of the Proposal Document is just one of many ways that the shapes tessellate.

- **Level 5:** In about the middle of your description, you mentioned that students “will mea-

sure the height from the floor to the arrow hole, the distance to the body, ...” What are those arrows and the body? Did you mention them anywhere before?

The arrow holes mentioned above are deterrents in the cave. They show that you will get shot if you walk the wrong path. The body mentioned is Dwight/Rosalee’s body. By measuring the distance from the arrow hole and the distance to the body you can use those two measurements to avoid getting shot when walking through the cave.

- **Learning Objectives:** Would you be able to match each objective with the activity that actually covers it? Understanding the learning objectives would be a much simpler task if the reader did not have to jump back and forth between the objectives and the description of a corresponding game level in order to trace how each objective is actually incorporated.

We have updated our list of learning objectives. Every mission of every level now has its own list of standards, proving a more precise objective list. Please see pages 13-18 in the Proposal Document.