

#ODDBALL

Phase 3 - Choose: CSC 591, Spring 2024

Client: Professor *Patrick Fitzgerald*, NC State Design

Team:

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Index

- 1. Displays and votes**
- 2. Critique: Summary of team critique**
- 3. Straw and decider votes**
- 4. Merge or not**
- 5. Storyboard**

Displays and votes:



Small dots: Initial votes

Medium dots: Straw votes

Large dots: Decider votes

Critique: Summary of team critique and Straw votes

TEAM DISPLAYS AND VOTES

Aditya Iyer	AI
Anish Rao Toorpu	AR
Bahare Riahi	BR
Mahathi Kolishetty	MK
Mery Harika Gaddam	MH

Solution 1: Collaborative Solving

Votes:

AR

Critique:

- In this mode, players can group up together and share their thoughts in the game and solve the puzzle.
- It creates team strategies and engages the users to play the game more.

Straw votes: **AR**

Reason: In this mode, players can team up, talk about the game, and work together to solve the puzzle. It's great because it makes players come up with team plans and keeps them interested in playing more. I liked this mode because it's all about playing as a team, it's something different, and it's not too hard to make.

Solution 2: AI-created puzzle images

Votes:

AR, BR, MH

Critique:

- The game utilizes generative AI to generate an infinite stream of unique puzzle images, ensuring a constantly refreshing and engaging user experience.
- By analyzing user performance and preferences, the selection of puzzle images is personalized, enhancing the challenge and enjoyment of finding the odd one out.
- Leveraging machine learning and generative AI technologies, the game offers new levels of fun and challenge by providing fresh puzzles without manual image selection.

Straw votes: **BR, AI**

Reason - AI: AI can generate relevant images faster and can always keep the database fresh. We plan on leveraging GenAI to manage the difficulty levels in this game, which can be directly used to generate the images.

Reason - BR: I think in this case the pictures will be generated based on the database and data log of the player's game. It can adjust the picture based on user preferences and performance.

Solution 3: Time attack mode

Votes:

BR, MK, AI

Critique:

- Time Attack mode makes the game exciting by having players rush to beat the clock, adding a fun competitive twist.
- This mode offers two ways to play: either solve one puzzle quickly or solve as many as you can in a limited time, putting players under fun pressure.
- Its simple design focuses on fast thinking and playing, making the game even more enjoyable when racing against time.

Straw vote: MK

Reason: Time Attack mode makes games more exciting because it makes you think and act fast. It also makes you want to play more to beat your scores, making the game more fun and challenging.

Solution 4: Rewarding progress system

Votes:

BR, MH

Critique:

- Adding a reward system levels up the game, making it more complex and fun by celebrating players' skills and achievements.
- Rewards boost motivation and make the game feel more satisfying, turning each win into a personal victory.
- This system makes playing more enjoyable, as players get tangible signs of their progress and skill.

Straw vote: MH

Reason: I believe a rewarding progress system stands out as it's the key to offering players a real sense of accomplishment. Celebrating their achievements, not only enhances their enjoyment but

also deepens their engagement with the game. This approach is essential for keeping players motivated and invested, making it the best feature in designing a captivating gaming experience.

Solution 5: Community challenges

Votes:

AR

Critique:

- In this mode, members from the same community can group and play against each other.
- It engages the users in the sense of competing with each other in their community.

Solution 6: Changing music and sounds:

Votes:

MK

Critique:

- The game's background music changes with the difficulty level, adding tension and keeping players hooked.
- As the challenge increases, so does the intensity of the music, enhancing the gaming experience by making it more engaging.

Solution 7: Educational paths

Votes:

MH, MK

Critique:

- Mixing educational content with games combines learning and fun, leading to greater engagement and better memory among users, making the experience enjoyable and rewarding.
- By using pictures and linking different stages, the strategy keeps the learning experience fun and maintains high interest and involvement across a wide audience.
- This approach ensures that players not only enjoy the game but also gain valuable knowledge, making the educational journey seamless and engaging.

Solution 8: Multiplayer Mode with players asking questions to each other

Votes:

AI

Critique:

- Players collaborate to find the Oddball amongst themselves by asking one question at a time to one player during their turn to play.
- This provides the slow reveal mechanic and goes perfectly well with the theme of the game.

Solution 9: 3D or Augmented Reality Integration:

Votes:

AI

Critique:

- Allowing users to interact with their surroundings in the game unleashes the full potential of technology, creating a more immersive experience.
- This interaction deepens engagement by making the virtual environment feel more real and responsive to the player's actions.

Solution 10: Fun reveal mechanic:

Votes: None

Critique:

- Gradually revealing images keep players on their toes, adding an element of suspense that makes the game more thrilling and engaging.
- This clever technique maintains excitement and interest, as players eagerly anticipate what will be shown next.

Solution 11:

Story-Driven Puzzles:

Votes: None

Critique:

- This is a little out of scope for our design

- This could be a nice pathway for future developers who want to develop new modes and enhance design.

Solution 12:

Customizable game modes:

Votes: None

Critique:

- A potential downside to allowing players too much freedom to customize their game experience, like choosing themes or pace, might be the complexity it adds to game design and development.
- This could lead to challenges in balancing the game properly for all the different customizations

Solution 13:

Smart difficulty adjustment:

Votes: None

Critique:

- It might lead to a less predictable and controlled progression system.
- This might frustrate users who prefer a steady increase in difficulty.

Decider votes:

AI-created puzzle images

Educational paths

Fun reveal mechanic

Decider votes winners: Mery Harika Gaddam, Mahathi Kolishetty

Decider's Input

As per the discussion, the client had suggested the following:

1. **AI-Created Puzzle Images:** Prof. Pat really likes the idea of AI-Created Puzzle Images because it avoids copyright problems. Since the images are made by AI and not copied from someone else, there won't be any legal issues. Also, the AI can keep making new images all by itself, so there's always something new without needing a person to do it.
2. **Fun reveal mechanic:** Prof. Pat liked how the game gradually reveals parts of the images, sometimes making them blurry or hiding certain parts, while also giving clues related to the puzzle's theme in individual images. He thought it was fun how players need to pay close attention and figure out the puzzle piece by piece. This way, players have to think hard about what they see instead of just guessing fast. He enjoyed the way this method draws players in, making them focus more and piece the puzzle together step by step.
3. **Educational paths:** Prof. Pat liked to create separate themes for educational content within the game. For example, there could be themes focused on biology, social studies, mathematics, and history. This way, players get to learn new things while having fun, and the game stays exciting without feeling like a classroom lesson. Each theme would introduce players to facts and quizzes related to their specific subject, making learning fun and diverse.

Merge or not:

After considering our votes and the suggestions from the decision-makers, we have chosen to combine several of our solutions to improve the equity profile reports. Specifically, we have merged the following solutions:

Solution 5 : AI-Created Puzzle Images

Solution 7 : Educational paths

Solution 10 : Fun reveal mechanic

During our previous stages we investigated the possible solutions for this project and we uncovered numerous challenges. And the storyboard we had developed was the starting point of the ideas. Clearly the challenges highlighted by the decision-maker were important for a comprehensive solution, which involved several ideas on the sticky notes. Therefore, it was decided to integrate and work on the three ideas simultaneously to advance the prototype development process.

The puzzle image created by AI can be incorporated into an enjoyable reveal feature to enhance the game's user interface, making it enticing and inspiring. The AI generates the image according to the user's preferences and performance, and it's complemented by the engaging reveal feature. Additionally, the images' identities and the puzzles presented serve an educational purpose aligned with the game's theme and context.

Storyboard:





This one's calling
to me. Gotta be
the right era.



I did it



Thanks to oddball!
History homework feels
like a breeze

Walkthrough:

Arjun struggling with his history homework: Arjun, a high school student, is shown sitting at his desk surrounded by history books and notes. His frustrated expression indicates the complexities of traditional methods of studying history.

Discovering Oddball: While searching for "fun ways to learn history" online, Arjun explored the Oddball app. Intrigued by its features of entertainment and education, Arjun is excited to explore more.

Encountering the Oddball Screen: While launching the Oddball app, On the screen, Arjun sees three different options: "Entertainment," "Edutainment," and "Education." The captivating graphics make each option seem exciting, prompting Arjun to select "Education."

Choosing a Path: Within the "Education" section, Arjun is shown various paths, including History, Chemistry, and Physics. Remembering his struggle with history, Arjun selects the History path, to get more involved in learning experience.

The Challenge Begins and Arjun Chooses One Image: The game transitions to an animated scene where AI-generated pictures of historical periods or monuments are displayed, each of them partially hidden behind curtains. Arjun's challenge is to identify the historical period based on the limited information shown. Arjun makes his selection, clicking on the image he believes shows the correct historical period.

The Fun Reveal Mechanic: After making the choice, the curtains dramatically raise, revealing the full image and providing a detailed explanation of the historical period given. This fun reveal mechanic lets Arjun know whether his choice was correct or not and improves his understanding of the historical period.

Love this game: Feeling successful and satisfied with a newfound interest in history, Arjun says, "Yay! I will never forget these historical periods again. Love this game!" This shows the successful completion of an interesting challenge and implicates Arjun's satisfaction with the Oddball app's engaging learning experience.