**End User Analysis**

**Emma Thompson:**

**Strengths:**

* Curious and eager to learn.
* Enjoys creative activities.
* Passionate about science and nature.

**Challenges:**

* Limited attention span.
* May struggle with complex instructions.

**Preferences:**

* Enjoys visually appealing and vibrant experiences.
* Benefits from clear and simple information presentation.

**Olivia Chang:**

**Strengths:**

* Has a steady hand and good hand-eye coordination.
* Enjoys experimenting and exploring how things work.

**Challenges:**

* May need clear instructions and visual cues.
* Can become frustrated with overly complex tasks.

**Preferences:**

* Enjoys challenges that test her precision and concentration.
* Appreciates engaging and interactive experiences.

**Design Implications:**

**Visual Appeal:**

* Use vibrant colours and engaging visuals to capture Emma's attention.
* Incorporate visually stimulating and quirky characters for Olivia to interact with during virtual surgeries.

**Clear Instructions:**

* Provide concise and simple instructions for both Emma and Olivia to understand the objectives of the game.
* Use visual cues, icons, and animations to guide users through different tasks.

**Short and Varied Activities:**

* Design the game with short, rewarding activities to cater to Emma's limited attention span.
* Integrate a variety of challenges to keep Olivia engaged and interested in different aspects of the game.

**Gradual Difficulty Curve:**

* Implement a progressive difficulty curve to accommodate both Emma's and Olivia's skill levels.
* Ensure that the challenges become more complex gradually, allowing users to build on their skills.

**Educational Content Integration:**

* Embed educational content related to science, biology, and anatomy seamlessly into the game's narrative for both users.
* Present interesting facts and information in a digestible and age-appropriate manner.

**Methods for Improved Usability:**

**User Testing:**

* Conduct usability testing with children in the target age group to identify any potential usability issues.
* Gather feedback to refine the game's interface and interactions.

**Iterative Design:**

* Adopt an iterative design process, making incremental improvements based on user feedback.
* Regularly test new features and adjustments with the target users to ensure the changes enhance the overall experience.

**Parent/Teacher Involvement:**

* Encourage parent or teacher involvement by providing guidance on how to assist children while playing the game.
* Incorporate features that allow parents or teachers to track a child's progress and provide support when needed.

**Accessible Platforms:**

* Ensure the game is accessible on various platforms commonly used by children, such as tablets and desktop computers.
* Optimize the game's interface for touchscreens and simple mouse interactions.

**Engaging Storytelling:**

* Develop a compelling narrative that resonates with both Emma and Olivia, encouraging them to explore and learn through the game.
* Use storytelling to create a connection between the educational content and the challenges presented in the game.