

# **True Dream Home Experience**

## **Project Documentation**

**Course: UX for XR**  
**Spring 2023**

Content Include:

- Preliminary Research (P2-23)
- Ideation and Development Process (P24-28)
- User Interviews (P29-33)
- Usability Testing (P33-36)

Jamiez Vo, Lydia Lin, Shiyuan Tian

## **True Dream Home Experience**

### **Preliminary Research**

- Research company
  - General info
    - Reach 180,000 downloads
    - Core game mechanics for specific customers → casual core for mid-women
    - Integrate walmart + digitalize materials
    - Run for 4.5 years
    - Advertising channel: app trafficking, advertise in facebook and apple, google search, not under 18
    - Concern: AI application: need human eyes, 3D assimilation (on top of the competitor), easy to move to AR → put risks now but need to know more about the user's mental ready for the experience
    - Advertisement, how to channel: based on user's psychology (the power of transforming), fantasy element
    - Demographic
      - Target regions with same user behavior (localization perspective, parallel comparison among countries)
      - Not quite precision because of small
      - Australia and New Zealand: safe places to test mobile apps
      - Expanding the mom graphics and teach users how to play XR
  - The game itself
    - Power and role specialization
    - Renovate with friends, tour the globe, vote and win
    - Software services, observe the user's behavior in different countries, users playing for years
    - How to draw in users through advertisement: giving users different level, true architecture, exploration, discovery, empowerment agencies (collection, able to change features), sense of community (play in squad) (value proposition)
    - [https://play.google.com/store/apps/details?id=com.fungi.houseflip&hl=en\\_US](https://play.google.com/store/apps/details?id=com.fungi.houseflip&hl=en_US)
- Competitor

- The sims <https://www.ea.com/games/the-sims> (Female target)
  - The Sims is a single-player interactive life-simulation game that gives you the power to create and control your own Sims character. You can create families, build homes, and complete various day-to-day activities such as sleep, eating, working, etc.
  - The Sims 4 has a PEGI rating of 12.
  - Based on The Sims 4, The Sims Mobile was released for Android and iOS in 2018. It features multiplayer elements and in-app purchases of SimCash, which is also earned through in-game quests. The microtransactions can also purchase additional items, so require extra diligence.
  - In the game, players earn Simoleons (the currency in The Sims) and Lifestyle points, which can be used to move the game forward. There are also Social points available for purchase with real-life currency.
  - Cost money: \$29.99/year renewed plan
  - Why it is popular:  
<https://www.internetmatters.org/hub/esafety-news/the-sims-4-what-parents-need-to-know/#:~:text=The%20Sims%20is%20a%20single,%2C%20eating%2C%20working%2C%20etc.>
    - Simple user interface
    - Customization
    - Youtube community
    - Regular updates
    - Sim language
    - Twitch community
    - Challenges
    - Form of escapism
  - Specifically for house decoration:  
<https://gamerant.com/the-sims-4-dream-home-decorator-complete-guide/>
  - Able to do simple rendering:  
<https://www.easyrender.com/a/you-can-use-sims-4-to-create-3d-interior-design-ideas-but-leave-the-final-product-to-professionals#:~:text=Creating%20a%20Floor%20Plan&text=Sims%204%20views%20every%20area,found%20on%20the%20same%20menu.>
  - Audience:
    - The number of women playing video games continues to grow, worldwide. Within the United States, around 48% of

women have played a video game, though only 6% of them identify as a "gamer."

- <https://gamerant.com/sims-4-players-majority-young-women/>
- When you look at 2009, for the launch of The Sims 3, the very first thing we had to do was identify who our target consumer was, and how were they consuming media. That target was 16-24 year olds, both male and female - because the game does have such a broad audience in terms of gender appeal.
- There are three key reasons - firstly, it does represent the largest audience that plays The Sims. Second, we know from a cultural perspective that 16-24 year olds are aspirational to a younger audience, so when we look at our other fans that 14 or 15 they'll look to the 16-24 year olds to see what's on the market place. Interestingly enough, that same audience is influential to an older age range as well, because older people will tend to look down to them to see what's culturally relevant, what's hip and trendy.  
Unfortunately I'm one of those people that falls into the older group...
- So when we see The Sims with such a broad consumer appeal, the 16-24 year old range felt like a very important range to target, in order to be able to reach the broad audience that we have.

- Advertisement

- This is the third launch in The Sims franchise - 2000, 2004 and now 2009 - and historically those launches have all done really well. When you look back, what you find is that the marketing efforts in 2000 and 2004 were very much focused on traditional media outlets - TV, print, and so on. Online played a role, but it wasn't the primary vehicle, because the consumers we were targeting weren't necessarily consuming media in that way. Traditional media still played a very important part of reaching those consumers.
- That's what I like about it - it's built on traditional media, but it's driven by the most extensive and integrated online campaign The Sims has ever done.

- The beauty of social networking and online today is that we're able to have those conversations with our fans all the time, so whether it's pre-launch, launch or post-launch, we can have those kinds of conversations with all of the audiences, and ensure that we're meeting their needs - plus learning and understanding what's really important to them in order to be able to respond to that.
  - One thing we know, that we've already touched on, is that we have a very broad audience - and we also know that we have an opportunity to continue to build up that broad audience for the franchise. In order to do that we wanted to create trial experiences that would excite our current players and at the same time be able to bring in a whole new world of fans.
  - <https://www.gamesindustry.biz/the-sims-3-john-buchanan#:~:text=That%20target%20was%2016%2D24,in%20terms%20of%20gender%20appeal>.
- The Sims 4
    - The Sims is a viral Sandbox game in which the player creates the main characters, known as the Sims, and places them in pre-constructed homes or homes of their design. Then, they try to satisfy the virtual characters' needs and control their mood. Needless to say, the game's most attractive feature is getting to design their homes inside and out.
    - One can build modern and sleek homes that are the envy of the Sim neighborhood. Players can pour their imagination into quaint homes or construct a mansion for a family of Sims. Players have the creative license to make stunning homes; paint the outside, or furnish the interior of a home. With so much to see and do, *The Sims 4* could be the best building game for architecture geeks.
- The Forest
    - *The Forest* is a survival game that was developed by Endnight Games for the PC and PlayStation 4. The game doesn't take long to get started as it immediately kicks off with players crash landing in a mysterious forest. Although *The Forest* is branded as survival horror, the game became a huge hit in early access because of how much fun it was to play with friends and how popular it was among YouTubers and streamers.

- Skyrim
  - One of the best things to do in a passive playthrough is building a house. Although numerous ready-made houses can be purchased in the land of Skyrim, nothing beats making a house from scratch. Building a house isn't easy, as players need to gather all the necessary resources first, though this is an excellent time-sink and an ultimately satisfying experience.
- Home Design story
  - *Home Design Story* is a program for Apple iOS. It looks more like a design program on the surface, but this is an interactive game that allows players to design every detail of their house, both exterior and interior, and invite friends and neighbors to visit. It's also possible to role-play as an architect and become famous with a stellar design career.
  - Players who pay attention to detail will appreciate how much this game lets them tweak, change, or add when it comes to decor.
  - This is a relatively simple yet enjoyable design game where the players earn virtual money by accomplishing different tasks. Then, they can use this money to purchase land or some of the new interior and exterior design items on board. These items can be used to design things other than houses. It all depends on the creativity of the player.
- Lego Worlds → male audience (Male)
  - Much like utilizing Lego bricks in real life, this video game is all about creative freedom, and, in regards to that concept, appropriately lets players build awesome homes as well as a tremendous variety of other structures. *Lego Worlds* offers infinite building options thanks to the sheer quantity of different bricks in the game, which is something architectural enthusiasts should check out!
- Cities: Skyline
  - One can build entire cities, including suburban houses, in *Cities: Skylines*. This house-building game is open-ended, meaning there is virtually no end. Take control of the urban planning and road placement involved in the development of a city. Without mods, however, players can't customize homes. Players make the zoning, and houses improve if their occupants are looked after.
- Fallout
  - Although *Fallout 4* can be criticized for its bugs and predictable plot points, it has a fun house-building component. The story

revolves around the only survivor of Vault 111, and it's a tale of danger and betrayal.

- SimCity

- The same designer developed SimCity as The Sims, which inspired the Sims. In this game, the players plan and manage a city they build on a patch of land. The city is divided into different zones like residential zones for the Sims to live in, commercial zones to shop at, industrial zones to work at, and so. Just like with the Sims and the real world, the main goal is to satisfy the inhabitants.

- Project High Rise → male audience

- In this 2D-building simulation game, the players manage a continuously developing skyscraper. They start with one story, a generator, and a crew of builders, and then, step by step, they raise the building by balancing the unit blocks of different functions and developing the infrastructure. The game is awe-inspiring in its graphics and up-to-date modern style.

- Townscaper

- Townscaper is a good option if you don't have a high-end gaming rig and would prefer to engage in a peaceful experience focused on urban planning than a supernatural first- or third-person shooter. The game is available on Microsoft Windows and OS X.

- Design Home Renovation

- More of a mini-game that plays with real furniture brands, Design Home: House Renovation is a cell phone game that lets players create realistic rooms with real, existing brands and then go head-to-head with other players to see whose design is the best.

- Home Design 3D

- Players draw out their ideas, set them in stone and decorate it, then save them and share it. Home Design 3D was made for people who have real-life projects and need to work out the kinks and visualize their idea beforehand.

- Home Design: Caribbean

- The game's UI is incredibly intuitive and everything looks fantastic. The wide range of furniture and customization options allows for some incredible designs that would make even the odd millionaire a little envious. The beautiful scenery only adds to the game's fantastic visuals which are incredibly impressive for a mobile game.

- House Flipper

- House Flipper is ideal if fellow gamers want to get really down and dirty with decorating houses from scratch. In this game, the player is given run-down, rancid, cockroach filled houses that are in need of serious repair.
- Players have the ability to completely remodel homes from the inside and out into their wildest fantasies or help customers fix up their own. There is access to a full catalog of paint, wallpaper, tiles, paintings, houseplants, furniture of different themes and colors, and more. This makes House Flipper a good choice if someone wants to go above and beyond.
- Minecraft
  - Minecraft may seem too blocky and basic for creating detailed life and interior homes, but CrafTonishing says otherwise with their modern-day-looking bathroom. They made a spanking-new looking bathroom one could only wish to have in real life, just with Vanilla Minecraft. Think of the options to choose from with all the resource packs available to make the blocks look more realistic, cartoonish, or gothic.
- Hokko Life
  - Hokko Life tries to continue what the Animal Crossing franchise started. A life simulation get-away full of animals and peace. In Hokko Life, you move to a faraway town and help the mayor and friends build up the village and make it lively and maintained. The purpose of the game is to log in, catch butterflies, and relax. But there's more to it than that.
  - The key feature that makes Hokko Life stand out from all other animal life simulations is the ability to create furniture. Aside from buying pre-made furniture from the store, you can craft your own objects from absolutely nothing. Collect a few logs and stones, and you have yourself the grounds to create mailboxes, beds, and more.
- <https://gamerant.com/architecture-games-build-houses/>
- <https://www.arch2o.com/14-architecture-games-unleash-creative-mind/>
- <https://www.thegamer.com/design-your-dream-house-games/#design-home-renovation-mobile>
- What learned from the analysis
  - Storyline and characters draw people in
    - House flip does not really have this?
    - Sims do a perfect job for this
    - Integrate with busy moms? Escapism concept?

- Need to have good interface and pretty interior and some kind of interaction among players to keep the retention
  - Building from scratch to empower user's ability
  - Building houses in different regions → enrich user's imagination
  - Most good games can be for architecture design basic
  - Similar competitive if going towards moms
    - Sims and the Home Design Story
  - Similar competitive if going towards male
    - Lego worlds
- Ideas
  - Create a storyline into the games, specifically for moms (related to how to deal with family, child care, social, neighborhood, their dreams)
    - Enhance the sims game aspect (now only have the option “renovate with friends” and the chat and the vote and win)
  - Keep the feature of building in different regions and meet different people around the world? (Extend from the community that fun-gi built)
    - Not only see different architecture around the world but make friends as well
  - Keep the flipping house aspect
  - More towards AR right now
    - Collaborate with some interior comp like IKEA
    - How to introduce the AR? Scan the interior and see how it's looking in real life?
    - Connect with House Flip: travel to Japan to learn more about architecture and make friends and share your design?
    - This one is like an advertising channel for House Flip through social media? Especially Facebook bc a lot of old women on FB
    - How to create the whole storyline?
      - Moms busy with housework and everything
      - Time to organize your life with multi-functional interior
      - Introduce the concept of minimalism for stress cope mechanism → clear out the extra unnecessary
  - How to make more organized and multi-functional interior design with IKEA?
  - Learn Japanese interior aesthetic with MUJI
- VR Home
  - VR Home is a sandbox game made for the HTC Vive based around building and designing your own virtual house or room. You can build, save and interact with your creations and homes. WATCH or STREAM your favorite youtube videos and movie files! BUILD anything from your real room, a gaming room, a production room, a disco room or even your nan's kitchen!

- Hutch (AR)  
<https://www.totheverge.com/augmented-reality-software-for-interior-design/>
    - Focused on the simple idea “to discover the inner interior designer,” the Hutch app helps virtually customize the living space without the risk of making unnecessary and unsuitable purchases. Although the app catalog includes furniture and decor elements from the most popular companies, customers can sort products by price, style, color or brand.
  - Home Desgin 3D VR  
<https://www.oculus.com/experiences/quest/3521056724684424/>
    - With Home Design 3D VR, designing and remodeling your house in VR has never been so quick and intuitive!
- 

### Minimalist Home Design for Male 18-34

- Empathize with users (Combine with Sissy and more)
  - The minimalist design concept
    - Minimalism was introduced in the early 1900s. Designers no longer favored the ornate and flashy decoration from previous periods. The idea of "less is more" was popularized and people wanted to focus more on what was essential in design—its functionality.
    - In minimalist design, the function of an object is the most important aspect. If an item in your home doesn't serve a purpose, it only becomes extra clutter.
    - Minimalist interior design favors clean, simple lines, neutral color palettes, and the use of materials such as concrete, steel, glass, and wood. But not limited to the mindset of focusing on making room for what matters. It can include reducing time and energy on externalities, reducing waste in your home.
    - When asked what is minimalism, Joshua Becker of [Becoming Minimalist](#) says: “Minimalism is the intentional promotion of the things we most value and the removal of anything that distracts us from it.”
    - Misconception: Minimalism is not about getting rid of everything and following a rigid set of rules/standards. It's mean to create your own minimalist lifestyle.
    - <https://simplelionheartlife.com/what-is-minimalism/>
  - Why minimalist lifestyle (stress, money, finance, energy)
    - Owning Fewer Possessions Reduces Stress
      - Studies confirm the feelings we have. Research confirms that possessions can make us feel stressed, anxious, and depressed. Clutter produces a chemical reaction in our body.

- Even more fascinating, according to a study published in 2011, people who value their possessions highly tend to experience higher levels of stress and depression. Not because of their quantity necessarily, but just because of the value they place on them.
- Owning Fewer Possessions Boosts Well-Being
  - The modern growth of minimalism as a lifestyle is still relatively new. But according to all of the research and evidence collected thus far, a consistent positive relationship has been found between voluntary simplicity and well-being.
- Owning Fewer Possessions Boosts Productivity
  - A study by scientists at the Princeton University Neuroscience Institute found that clutter in the workplace can have a negative impact on productivity. Participants in the study who worked in a cluttered environment performed worse on tasks that required concentration and problem-solving than those who worked in a clean and organized space.
- Owning Fewer Possessions Can Help You Save Money
  - A recent study, released only in March 2023, studied the impact of minimalist practices on consumer happiness and financial well-being and discovered “adopting a minimalist lifestyle saves substantial money.”
- Owning Fewer Possessions Can Help Bring Happiness
  - According to research from the McCombs School of Business at The University of Texas, experiences tend to bring more happiness than material possessions. The researchers concluded that people are happier with experiential purchases over material ones irrespective of when you measure happiness: before, during, or after consumption.
- <https://www.becomingminimalist.com/>
- It sounds like it's for everyone but why male? Why male prefer a minimalist lifestyle? Esp 18-34? (help build career and personal development)
  - Today, too many men live the modern version of “the strenuous life,” which is more aptly termed “the stressful life.” Instead of adventure, it’s one marked by overwhelm. Men are strapped to their desks, tethered to their smartphones, a beep or chime away from their next dose of anxiety.
  - More than six million men suffer from depression each year. Suicide among men has risen dramatically since the year 2000, and in the year 2017 men died by suicide 3.5 times more often than women. Approximately one in five men develop alcohol dependency during their

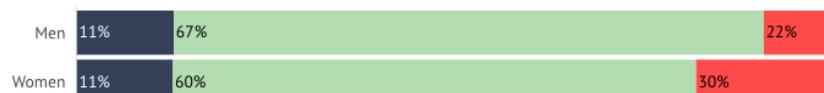
lives. Mental health trends among men continue to trend in the wrong direction.

- <https://www.becomingminimalist.com/why-men-need-minimalism/>
- More than half (53%) of American men aged 18-34 feel pressure to be manly, compared to only 15% of men over 55.  
<https://www.prnewswire.com/news-releases/men-18-34-in-north-america-say-they-feel-pressure-to-man-up-300936778.html>
- Niche target for male 18-34: designer, whoever value productivity and have busy work/life and appreciate their mental health
  - “As a designer, I’ve always appreciated the power simplicity and minimalism has on my designs. However, it wasn’t until recently that I began to realize how I can use minimalism to strengthen my life.” Dennis Field <https://www.iamdennisfield.com/post/benefits-of-minimalism>
  - “Minimalism allows me to be more mindful and present in the decisions I make. I set goals and question my design and purchasing decisions by determining how much value it will add to my project or life if I add or remove it. It helps me and my ideas stay focussed, lean and free of clutter.”
  - “I found minimalism, which allowed me to find the space and time necessary to strive for things—and by “things,” I mean experiences, relationships, beliefs, and values—that are necessary to cultivate a content and fulfilling life.” Joshua Becker - author of becoming minimalist
- Limited resources talking about the good impact of minimalist design for male. More article talking about minimalist wardrobe, house appliances for women but not much for male

## Portrait of a Minimalist in 2021

Women are more keen on the lifestyle than men, with respondents between 35 and 54 reporting the most interest in living a minimalist lifestyle, while lower-income earners and adults under the age of 35 are the most likely to currently consider themselves minimalists.

### Experience with Minimalism by Gender



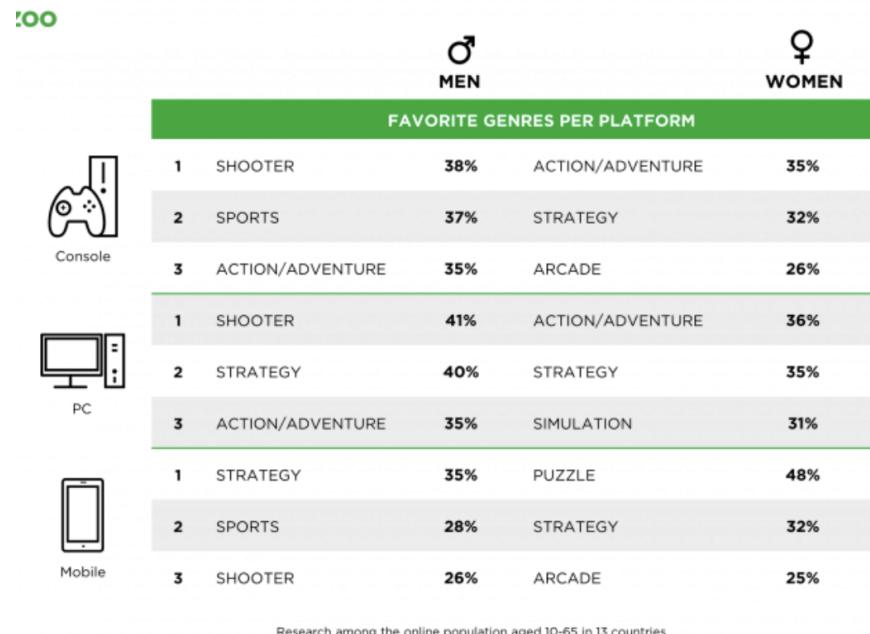
● I consider myself a minimalist ● I have no desire to become a minimalist

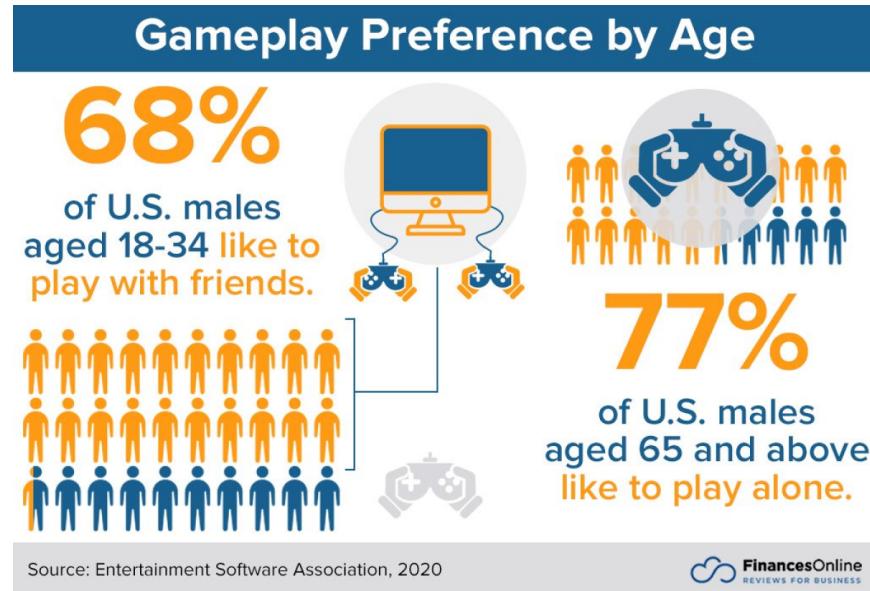
● I want to be / am working toward becoming a minimalist

3,004 responses, weighted by U.S. Census 18+  
Survey Dates: 01/04/2021 to 01/11/2021  
© CivicScience 2021

- - Stereotypes on male game player (sth is not feminine like fighting, battling, actions)

- Men are also often portrayed stereotypically in games. A recurring depiction of male sexuality is the *power fantasy*, where an apparent sexualization as an object of desire and hypermasculinity are overruled by the character's agency as the protagonist and avatar for the player's power within the game world.
- [https://en.wikipedia.org/wiki/Gender\\_representation\\_in\\_video\\_games#:~:text=Men%20are%20also%20often%20portrayed%20within%20the%20game%20world](https://en.wikipedia.org/wiki/Gender_representation_in_video_games#:~:text=Men%20are%20also%20often%20portrayed%20within%20the%20game%20world).
- Desire to shift the focus and have room to do this
- Across all platforms, men favor the strategy, sports, action adventure, and shooter categories. In comparison, women enjoy a broader genre of games, including puzzle, simulation, and arcade.





- Competitive analysis (what I have)
  - Most home design have a niche market on female (above)
    - More house design games are for female than male
  - Most home design is successful because of their strong narrative (above) and interface
    - Sims
    - House Flipper
    - Build House on Caribbean
  - Some minimalist home design game or experience
    - <https://www.homesandgardens.com/interior-design/living-rooms/the-30-day-minimalism-game> (Challenge not game)
- User research
  - Have age range from 18-22
  - Potential interview: professor? Someone on IDM floor

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- User interview
  - Give us some general background: age, occupation, current living place, your work and life motivation, 3 of your hobbies, your fluency with technology
    - Uyen Vo, business owner, 25 years old, use social media including Facebook, Instagram, and Tiktok to promote her business
    - Love traveling with her family, watching reality show, and playing tennis
    - Work & Life motivation: bring the best customer service to her customers and create comfortable, safe living environment for her family
  - How often do you decorate/design/organize your home?

- Reorganize her home once a month with some new furniture especially for kitchen supplies. Furnishing home with new furniture during special occasions like Lunar New Year
- What is your dream home like? (It can be from home design to location)
  - Well-furnished and have a warm color palette for furniture and wallpaper. Prefer multi-functional furniture to maximize space. Wish that she can buy a house far away from the city. Da Lat, Vietnam is an ideal place for her dream house.
- What motivates you to come up with all the aspects included in your dream home?
  - The sense of peace and comfort she can only find in the countryside. As she is living in the city area, it is hard for her to feel completely comfortable at home with busy activities and noise happening everywhere.
- How satisfied are you with your current home? (Rate from 0: not satisfied at all to 5: very satisfied, will not move elsewhere in the future)
  - She feels fine with her home now taken into consideration of home design and location
- What do you want to change to make your current home better?
  - Change the house's location to a less busy district.
- What are some of the games that you play?
  - Temple Run, Candy Rush, Sudoku
- How familiar are you with the XR technology? (social media app filter, 3D space reality, etc)
  - She is familiar with social media app filter on Instagram and Facebook
- How busy are you with your schedule?
  - She starts work at 9:00 am to 6:00 pm and takes care of her family after.
- How often do you attend a pop-up/in store experience?
  - She has never been to an in-store experience. She attends some pop-up events like pop-up markets happening twice a month
- Research
  - Analysis of the existing game
    - Remodel houses on a renovation world tour and explore international architecture while collecting design skills and swatches
    - Giving users different levels, true architecture, exploration, discovery, empowerment agencies (collection, able to change features), sense of community (play in squad)
    - Success in drawing women audience: 70% is women, Core game mechanics for specific customers → casual core for mid-women, Players: 45 min-1h playing

- More about play roles, flipping and selling mechanisms → the VR experience should focus more on the immersive experience like designing, aesthetic,
  - Traveling part
  - Some space to improve the interaction
  - Some space to make the game experience more immersive
  - Some space to integrate the two key success factors: traveling and neat home design
  - Integrate narration to help guide user through the story
- Better touch point, interface from the House Flipper example and more competitors with nice interface and storyline
  - The sims <https://www.ea.com/games/the-sims>
    - The Sims is a single-player interactive life-simulation game that gives you the power to create and control your own Sims character. You can create families, build homes, and complete various day-to-day activities such as sleep, eating, working, etc.
    - The Sims 4 is a viral Sandbox game in which the player creates the main characters, known as the Sims, and places them in pre-constructed homes or homes of their design. Then, they try to satisfy the virtual characters' needs and control their mood. Needless to say, the game's most attractive feature is getting to design their homes inside and out.
    - Simple user interface
    - Customization
    - Youtube community
    - Regular updates
    - Sim language
    - Twitch community
    - Challenges
    - Form of escapism
    - The number of women playing video games continues to grow, worldwide. Within the United States, around 48% of women have played a video game, though only 6% of them identify as a "gamer."
  - Home Design: Caribbean
    - The game's UI is incredibly intuitive and everything looks fantastic. The wide range of furniture and customization options allows for some incredible designs that would make even the odd millionaire a little envious. The beautiful scenery only adds to the

game's fantastic visuals which are incredibly impressive for a mobile game.

- House Flipper

- House Flipper is ideal if fellow gamers want to get really down and dirty with decorating houses from scratch. In this game, the player is given run-down, rancid, cockroach filled houses that are in need of serious repair.
- Intuitive interface

- VR Home

- VR Home is a sandbox game made for the HTC Vive based around building and designing your own virtual house or room. You can build, save and interact with your creations and homes. WATCH or STREAM your favorite youtube videos and movie files! BUILD anything from your real room, a gaming room, a production room, a disco room or even your nan's kitchen!
- Hutch (AR)  
<https://www.theverge.com/augmented-reality-software-for-interior-design/>

- Focused on the simple idea “to discover the inner interior designer,” the Hutch app helps virtually customize the living space without the risk of making unnecessary and unsuitable purchases. Although the app catalog includes furniture and decor elements from the most popular companies, customers can sort products by price, style, color or brand.

- Home Design 3D VR

<https://www.oculus.com/experiences/quest/3521056724684424/>

- With Home Design 3D VR, designing and remodeling your house in VR has never been so quick and intuitive!

- The integration between outside and inside environments

- Any existing examples of application? (the closest examples)

- Dream Holiday: Enjoy Spain, Hawaii, Bali, Italy and many other exciting places and decorate beautiful homes along the way. As real estate agents and interior designers like to say: location, location, location.

<https://play.google.com/store/apps/details?id=com.cookapps.ff.worldtrip>

- Final Fantasy: multiplayer RPG is set in a magical fantasy land with various creatures. Players can choose a land and a home for themselves and design and decorate every inch of it with all kinds

of items. In this magical game, players can create some of the most breathtaking homes that are both realistic and otherworldly at the same time.

- *Hokko Life: This cozy RPG transports its players into the charming Hokko village where they'll have to take over an old workshop and use their creativity not only to create their own homes but to design tools and craft all kinds of materials for their village.*
- <https://gamerant.com/cool-best-home-design-games/#disney-dreamlight-valley>
- The transition from game environment to real-world experience
- Women 25-54
  - Already know how to navigate through technology and softwares (know how to play sudoku)
  - Leverage available successes from the game:
    - Dream of having house in key locations, especially with women near the retired age
    - Love home design, the empowerment of making
    - How to still embrace the sense of creating their own home but less task of selling and flipping but more designing home, just give users the chance to express their design style and live in their own dream home and world
  - Have little knowledge about XR technology, how to access it, how to have sth called immersive experience
  - Have little time to travel and imagine their home
  - Why does home design is so popular
    - The difference between what one can afford in-game and in reality is vast, and that's an obvious reason why house design (and fashion) games are so appealing: they work as a form of wish fulfillment.
    - A tidy home is a tidy mind and being able to escape instantly to a pristine virtual room is relaxing. With no expectations, players are encouraged to explore and experiment.
    - House design games are also educational. Players learn how to put together a room without having to spend real money to find out. It also works as a way to provide inspiration for those that can afford to redesign their real-life homes.
    - <https://www.appllovin.com/blog/house-design-games/>
- Research location

- Switzerland returns to the top spot in the overall 2022 Best Countries, a ranking and analysis project by U.S. News & World Report; BAV Group, a unit of global marketing communications company WPP; and the Wharton School of the University of Pennsylvania.
- “Having quality of life as the top subranking demonstrates that elements such as a good job market, affordability, political stability and well-developed health and education systems are playing an increasingly important role in shaping a country’s global image.”
- Switzerland returns to No. 1. The country, which held the top spot from 2017 to 2020, scored well on quality of life and social purpose attributes. It is also perceived as a country that cares about human rights, as well as gender and racial equity and the environment.
- COVID-19 continues to factor into perceptions of health care. Seventy-nine percent of respondents agree with the statement, “I approve of my country’s efforts to protect its citizens from the COVID-19 pandemic,” while only 65% agree with the statement, “I trust my government to take care of my health and safety.”
- There is a desire for global leadership – as well as female leadership. Eighty-nine percent agree with the statement, “We need leaders that think beyond their own borders or their own self-interests,” while 69% agree that “countries led by women tend to be better managed,” up 1.4 points from last year.
- 2022 Best countries
  - Switzerland
  - Germany
  - Canada
  - United States
  - Sweden
  - Japan
  - Australia
  - United Kingdom
  - France
  - Denmark

- For social purpose
  - Sweden
  - Norway
  - Denmark
- For women
  - Sweden
  - Norway
  - Finland
- For racial equality
  - Netherlands
  - Sweden
  - Norway
- <https://news.wharton.upenn.edu/press-releases/2022/09/the-2022-best-countries-report-ranks-switzerland-as-no-1-in-the-world/>
- For retirement
  - The Global Retirement Index (GRI) examines retirement from different, more quantitative perspective. The annual report looks at 44 different countries and ranks them based on their retirement security. The index considers 18 factors, which are grouped into four overarching categories:
    - Health: Health spend per capita, life expectancy, and non-insured health spend.
    - Quality of Life: Happiness levels, water and sanitation, air quality, other environmental factors, and biodiversity/habitat.
    - Material Wellbeing: Income per capita, income equality, and employment levels.
    - Finances in Retirement: Government debt, old-age dependency, interest rates, inflation, governance, tax pressure, and bank non-performing loans.

Rank	Country	Score	Health	Quality of Life	Material Wellbeing	Finances in Retirement
1	Norway	81%	91%	87%	79%	69%
2	Switzerland	80%	90%	86%	69%	74%
3	Iceland	79%	88%	86%	77%	68%
4	Ireland	76%	89%	80%	67%	70%
5	Australia	75%	88%	77%	66%	72%
6	New Zealand	75%	85%	81%	64%	71%
7	Luxembourg	75%	91%	81%	72%	59%
8	Netherlands	75%	89%	80%	78%	56%
9	Denmark	74%	86%	88%	76%	54%
10	Czech Republic	73%	76%	68%	84%	64%

- <https://www.weforum.org/agenda/2022/11/these-are-the-best-countries-to-retire-in/>

- For gender equality

- Sweden: Gender equality is one of the "cornerstones" of society in Sweden, making it the best country for women to live in. Nearly two-thirds of university degrees are awarded to women, and around three months of leave are given to each parent during parental leave.
- Denmark: With an earnings-related daycare system and one of the most flexible parental leave policies in the EU, Denmark is the second best country for women.
- Norway: Considered to be one of the most gender equal nations on the globe, mothers can take 35 weeks of maternity leave at full pay, or 45 weeks at 80% pay in Norway.
- Netherlands: This country provides benefits to new mothers, including giving them access to a maternity nurse, with the cost (or part of it) covered by insurance.
- Canada: Protecting women's rights is part of this North American country's domestic and foreign policy.

- Ideal home design research

- Millennials (those ages 18 to 34) are seemingly obsessed with modern, minimalist mid century design, called "mod visionary" in the Modsy quiz. Alessandra Wood, a design history PhD and the director of style at Modsy, isn't surprised. "Younger generations living in cities are likely living in smaller apartments and condos, so a

minimalist aesthetic is more appropriate—perhaps even necessary!—for the size of their spaces," she explains. "Mid Century-style furniture tends to feel more open and less bulky, and is known for being 'livable,' which translates to both comfortable and stylish. Urban areas are also the prime location for the industrial aesthetic, with tons of converted lofts and newer buildings mimicking the loft-feel."

- Then there are the 55- to 65-year-old baby boomers, who most often received "refined rustic" as their result on the style quiz. "'Refined rustic,' in particular, blends classic forms with a more informal rustic style, suggesting that these generations are looking for a comfortable feel to their homes," says Wood. Perhaps life has taught them that a sharp-lined, sculptural armchair—a sure bet for millennials—isn't what you want to cozy up in, well, ever.
- [https://www.monash.edu/\\_data/assets/pdf\\_file/0012/2879553/A-Design-Guide-for-Older-Womens-Housing.pdf](https://www.monash.edu/_data/assets/pdf_file/0012/2879553/A-Design-Guide-for-Older-Womens-Housing.pdf) (the whole guideline)
- Timeless design:
  - NATURAL MATERIALS
    - Embrace natural materials in your finishes, fixtures and furniture such as timbers, stone, marble, cottons, linens and wool.
  - NEUTRAL COLORS
    - Opt for a neutral color palette with splashes of color and texture to layer in interest.
  - CLEAN, CLASSIC LINES
    - Avoid overly ornate furniture and architectural details and stick with clean, classic lines that won't date.
  - QUALITY MATERIALS AND FURNISHINGS
    - Stick with quality over quantity. A well-balanced, yet sparse, room with quality furnishings and materials will present better than an overcrowded interior with poorer quality décor.
  - <https://urbanrhythm.com.au/blogs/urstyle/the-ultimate-guide-to-achieving-a-timeless-look-in-your-home#:~:text=Velvets%2C%20cottons%20and%20canvas%20are,point%20such%20as%20a%20fireplace.> (visuals)
  - <https://www.pinterest.com/pin/308285537001397440/>
- <https://www.southernliving.com/home/retirement-house-plans> (types of house)
- Home decor pieces

- <https://www.thezoereport.com/p/the-home-decor-essentials-you-should-own-by-40-according-to-design-experts-17013167>

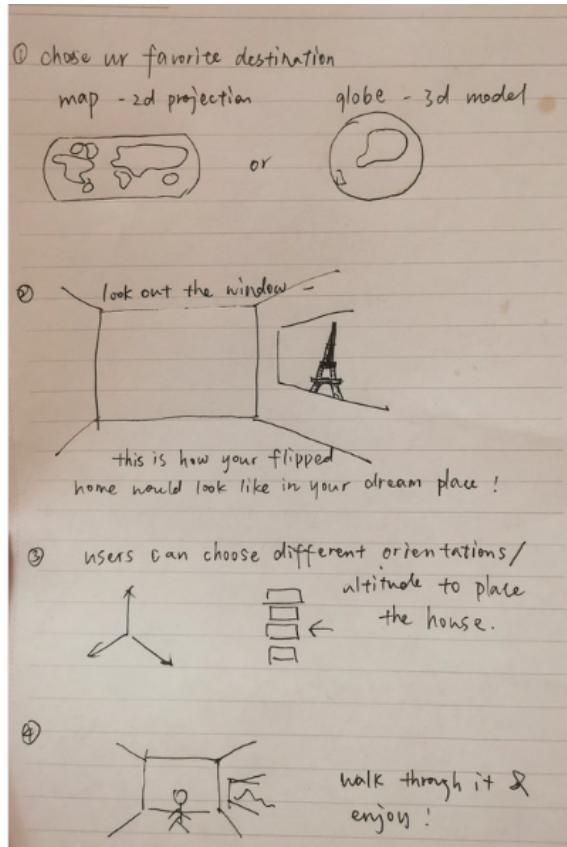
## True Dream Home Experience

### Ideation Process

#### 1. VR Experience Sketches



#### 2. Technical approach sketches



#### 3. Country map prototype (3 different versions)

**a. First iteration**



**b. Second iteration**



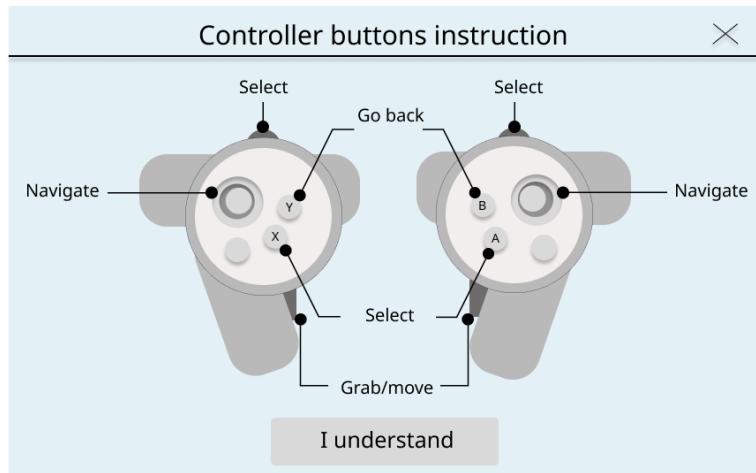
Select your dream home location!



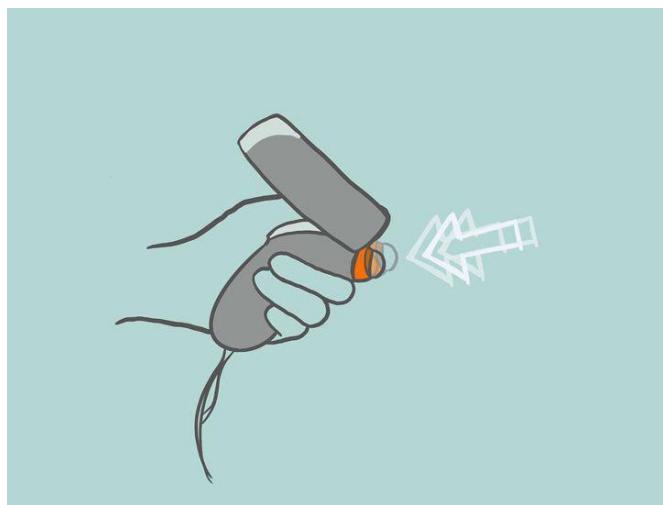
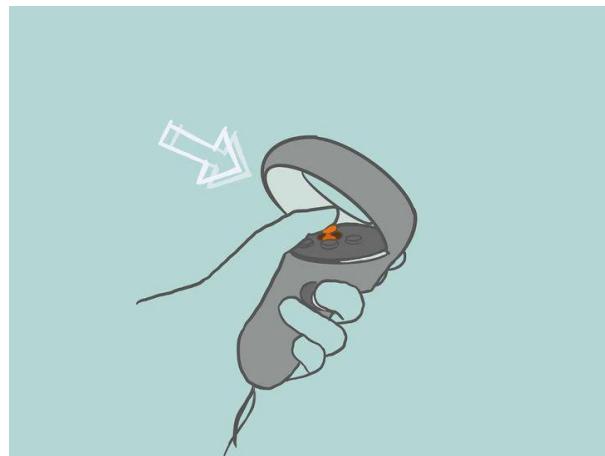
**c. Final**

#### 4. Instruction prototypes

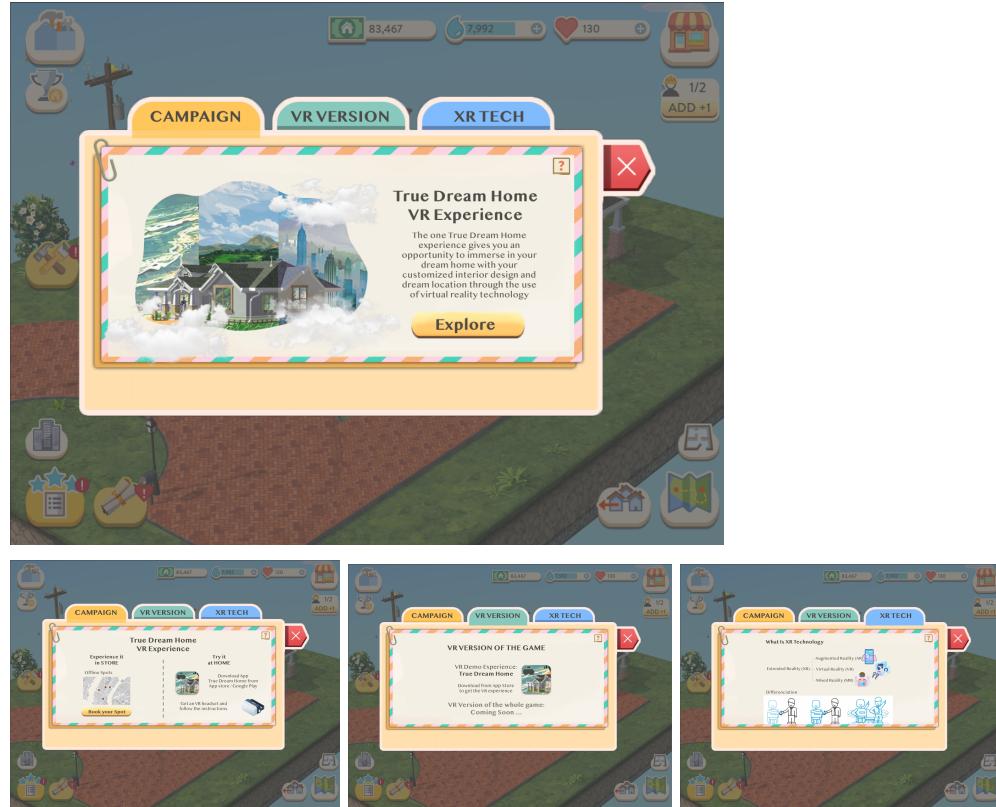
##### a. Controller instruction



##### b. Animation instructions

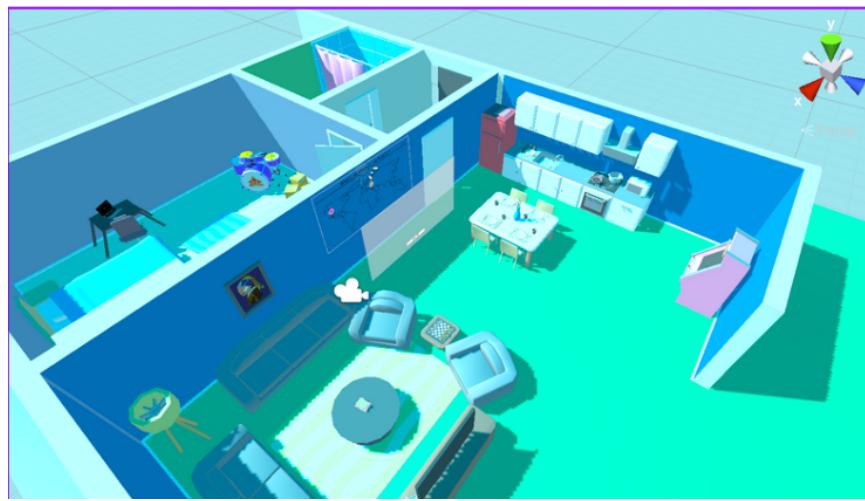


## 5. Advertisement from House Flip to True Dream Home



## 6. Evaluated Models

### a. Original model



### b. 1st evaluated model



c. 2nd evaluated model



## **True Dream Home Experience**

### **User Interview**

- **Objectives**

- In order to gain more insights into how the idea concept of the True Dream Home experience is relevant to the target audience, the team decided to conduct a user interview which focuses on asking users about their opinions towards the experience's concept. The user interview round is expected to generate user feedback that will guide the team to further evaluate the experience towards user's demand throughout the developing and designing process.

- **How it is conducted**

- The interview took place at the Museum of Modern Art at 3:00 pm on Friday. The team decided to choose MoMA as the designated user interview place since the place gathers a large group of ideal interviewees representing the target audience - middle-aged women from 25 to 53 who are not familiar with XR technology
- The interview is an one on one interview with one team member asking questions and another taking notes. It takes approximately 5 minutes for one interview

- **Interview questions**

1. Background:
  - a. What industry are you working in?
  - b. How familiar are you with technology (mobile apps, social media, mobile games)?
  - c. Are you familiar with XR technology (VR, AR, mixed reality)?
2. What does your dream home look like? (type of home design, location)
3. How often do you decorate/redesign your home?
4. Introducing True Dream Home experience: if there is a VR experience (explain what VR is) that allows you to immerse yourself in your dream with your own ideal home design and location, would you be willing to try?
5. What excites you to try the experience?
6. What are some of your concerns about trying the experience?

- **Interview responses**

- Interviewee 1: 30 years old, work for a non-profit organization
  - Familiar with mobile apps and social media. Not familiar with XR technology
  - Decorate her house monthly
  - Dream home: located in Arizona or Mexico, one story house on a beach, near nature but not too far away from the city

- Excited to try True Dream Home because she wants to see how the living environment changes in multiple locations. Most excited about how the experience can let users decorate their own home besides the location selection feature. Love the ability to create her own home
- Currently no concerns about the experience and would like to try it with new technology
- Image:



- Interviewee 2: 27 years old, working in the teaching and graphic design field
  - Familiar with mobile apps, social media, and XR technology. Use augmented reality in her design work
  - Love decorating her house and do it often (every week). Super into making furniture
  - Dream home: located in Maryland (her hometown), have space for art studio where she can make design and arts, big backyard with shiny furniture
  - See the vision of the True Dream Home experience. Compliment on how pleasant the experience is and would love to try it. Would love to try switching different living environments and pick the one she loves. Suggest the experience to have a feature that allows users to interact with furniture like making and changing the design of some furniture that they are currently owning
  - One concern she has is the perception of the virtual world: how it creates an illusion for users to think and compare with their real world where they do not have the same exact experience
  - Image



- Interviewee 3: working in Digital Marketing field
  - Familiar with mobile apps, social media, and mobile games. Little knowledge of XR technology, but never used it before.
  - Just moved into a new house (2 years), and have put many efforts in decorating their house in these 2 years.
  - Dream home: Love open spaces, love nature. Love to live in the kind of place out of the city, in nature, but near the city (convenient). Love the house with big windows, can feel like being in nature.
  - Excited about walking and navigating in the room, and designing it.
  - Concern: The difference between virtual and real world: the feel of tangible things and intangible things. For example, when you are moving the furnitures around, the feel is different in VR and real world
  - Image



- Interviewee 4 from Italy, working in Cyber Security industry

- A bit familiar with technology like social media and mobile games. A bit familiar with XR technology. And thinks that Italy is not as developed as America, and the XR technology is not a thing for consumers.
- Really love decorating her home. Do that every week. Go to the flea market, and buy nice furniture for her house.
- Dream home: would love a really big house, near a lake, nature, and also near the city as well.
- Asked about what is the purpose for this experience? Selling a house?
- Excited for: walking inside the house, create and plan the house
- Concern: not many. Don't need to be concerned about interactions. (Don't need to interact with real people.)
- Image



- 

- **Evaluation**

- Emphasize and focus on designing a smooth onboarding process of virtual reality (instructions on the headset, controllers, and how to navigate the space) because a lot of users do not have much knowledge and experience with XR technology and virtual reality
- Consider the advanced feature of the experience to enhance user's interaction with the experience including the option for users to customize their own home design with a diverse range of furniture besides the location selection option
- Consider to include the typical dream location of the target audience to include in the experience: locations near nature, seaside, bringing a sense of peace and tranquility

## True Dream Home Experience

### Usability Testing

- **Objectives**

- The goal of usability testing is to help the team gain more insight into how well users interact with the experience from onboarding to completion. The usability testing focuses on the effectiveness of instructions introducing users to the virtual reality experience and guiding them to navigate the experience. Moreover, the testing is looking into the whole process of users navigating through the experience considering motion sickness and confusion about the experience

- **Usability Testing questions**

1. How is your experience? Give us three adjectives to describe your experience
2. How does the instruction affect your experience? Add on: does it help you with the interaction? Do you have any confusion, difficulties?
3. What would you like to see in the experience? From getting the instruction, trying the headset, to entering the environment

- **First testing round**

- How it is conducted
  - Testing with 2 NYU students (one familiar with XR technology and one is not familiar with XR technology), IDM Professors
  - Testing the first draft model with draft assets, 3 location options, full instructions on how to use the controllers and navigate through the space
- User feedback
  - The onboarding process is straightforward is smooth
  - The text and icons on the map are too small and blurry
  - The select button is not clear enough, easy to mistake with another button on the controllers
  - The experience does not have enough interaction besides the location selection
  - The use of locomotion to navigate the space can cause motion sickness
- Evaluation
  - Make the text and icons bigger and more clear
  - Specify which button is for select option with text on the instruction screen
  - Slow down the locomotion speed

- **Second testing round**

- How it is conducted
  - Testing with 2 NYU students who are not familiar with XR technology
  - Testing the second draft model evaluated from the first draft



- User feedback
  - The instructions are clear, intuitive, and helpful to navigate through the space
  - The “move to here” sign is not obvious and hard to follow
  - The soundscapes in Finland and LA are not clear enough
  - The change of the surrounding environment is not obvious and impactful. Need to navigate to open space of the room to be able to see the scene
  - Wish to have more interaction with the experience such as picking up the furniture and navigating through the space
- Evaluation
  - Change the wall into big transparent window glasses to see the scene more clear
  - Change the “move to here” from the floor location to the user’s eye sight location
  - Change the soundscapes of LA and Finland
- Third testing round
  - How it is conducted
    - Testing with 2 NYU students who are not familiar with XR technology
    - Testing the third draft model evaluated from the second draft



- User Feedback
  - The instructions are clear and the soundscape is good to help distinguish different locations
  - Need to experiment with the locomotion button a few times before understanding how to use the button to navigate the space

- Add ending scenes or some signs at the end of the experience to conclude the experience
  - Add more interactions into the experience like moving the furniture around
  - Not be able to navigate other spaces because they do not know there are other rooms besides the one they are in at the beginning of the experience
- Evaluation
    - Add more locations to the map to enrich the experience
    - Add some directions to help users navigate to other spaces