Potential volumetric capture applications for GroupM clients

Usability & Desirability Evaluation For Adidas Sporty Tryouts

Company	**University**	**Student**
GroupM	Fontys	Jan Carlo Hendriks
Charlie Freestone	Eric Slaats	SN: 2366487

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Version History

Date	Version	Author	Comment
2023-08-08	1.0	J.C. Hendriks	Initial document
2023-08-24	2.0	J.C. Hendriks	Added introduction, changed testers paragraph, included evaluation results.
2023-09-28	3.0	J.C. Hendriks	Changed title from “Prototype Evaluation For Adidas Sporty Tryouts” to “Usability & Desirability Evaluation For Adidas Sporty Tryouts”. Edited introduction and recommendation.
2023-09-29	4.0	J.C. Hendriks	Edited testers paragraph, conclusion and recommendation.

Introduction

In this document I explain the usability and the desirability evaluation I planned and its execution for my concept, the Adidas Sporty Tryouts. The concept involves a short video game embedded on the e-commerce website of Adidas that allows customers to virtually try out different clothing items in various scenarios with their selected Adidas virtual ambassador, providing an interactive and engaging experience. Each clothing section comes with specific game scenarios such as football, basketball or tennis. The game provides users with rewards after finishing a game, increasing engagement and satisfaction. Conducting this usability and desirability test early in the concept development process is important because it validates the user needs and preferences, reducing the risk of investing in a product that may not meet market expectations. Furthermore, by iterating and refining the concept based on user feedback, I can create a more user-centric and competitive product, this aligns with the principles of user-centred design. This approach not only enhances user satisfaction but also leads to potential cost savings by addressing issues before they become expensive to rectify. For testing purposes, this prototype will only demonstrate the game scenario of football, given the other game scenarios will follow the same structure of the application.

The Product

The product being tested is a mid-fidelity prototype that consists of a clickable wireframe representing the flow of the application, including the immersive feature by allowing the user to interact with a 3D scene.

The prototype can be found here:
https://www.figma.com/proto/eNkAxAEtnZJ1NrCkgHkP0u/Prototype?page-id=0%3A1&type=design&node-id=56-81&viewport=851%2C331%2C0.11&t=RIhK0DIyZM04RxNE-1&scaling=min-zoom&starting-point-node-id=56%3A81&mode=design

The 3D feature can also be found here:
https://jancarlohendriks.github.io/s8-edu-volu-web/#left

This prototype will focus on measuring the desirability and usability of the application. The desirability will be measured in terms of confidence in making a purchase and the satisfaction with the purchasing experience. The usability will be measured in terms of task completion.

The Objective

The primary objective of this test is to validate the concept. In order to validate the concept, I want to test the following:

1. The user experience of the website overall, proving its usability and user-friendliness.
2. The value of the personalisation and immersive experience features provided by volumetric capture, and thus the desirability of the application.

The results from the test would offer conclusive evidence that this concept effectively addresses the challenge of providing a virtual try-out experience while enhancing purchase confidence.

The Methods

The test will consist of tasks to measure the completion success rate and misclick rate to prove the usability and user friendliness. In addition, the testers will be asked questions to measure confidence and satisfaction proving the added value of the personalisation and immersive experience features.

The test will be done remotely on the tester's computer, by using a usability tool called Useberry due to its ease of use in creating prototype tasks and different forms of rating questions, as well as easy shareability, and a clear overview of the resulting metrics. In this tool, a clickable prototype can be loaded and monitored. The prototype will be built in Figma, and it will include a small interactive proof of concept to test the 3D immersive experience. The proof of concept will be built in javascript and use the script necessary to run the 3D holograms. This hologram will be clearly of less quality given the absence of any available high end volumetric capture studio. To tackle this problem, an alternative technique has been put in place to simulate the same results, using a mobile base technique with the application Vologram.

Prior to starting the test, the tester will be given an introduction to the application and a script to follow a specific role within the test.

After collecting the results and documenting the answers and behaviours, I will analyse these results and draw conclusions.

Test Content

Tasks

To test the features on usability and user-friendliness, the testers will be asked to complete the following tasks:

Feature	Task
Avatar selection	Fill in personal information and select an avatar
Virtual wardrobe	Find and select a clothing item
Game scenario	Play and finish a mini game
Shopping experience	Make a purchase

Questions

To test the features on their confidence in making a purchase and their satisfaction with the shopping experience, the testers will be asked the following questions:

Feature	Questions
Avatar selection	1. How confident were you in your athlete/avatar selection process? (scale of 1 to 5) 2. How much did the ability to choose your own avatar and personalise the shopping experience accordingly improve your connection with the products or brand? (scale of 1 to 5)
Virtual wardrobe	1. Did interacting with the avatar in an immersive 3D environment and trying different actions with this avatar (eg. kick, jump, etc) increase your feeling of connection to the products or brand? (Yes / No) 2. Which specific avatar actions influenced your purchase confidence the most? (Select one or more) a. Trying on the selected outfit b. Interacting with products (eg. moving around product in 3D, zooming in and out, etc) c. Performing actions related to products (eg. kick, jump, etc) d. Other (please specify)
Game scenario	1. How enjoyable was the mini-game? (scale of 1 to 5) 2. Did playing the mini-game enhance your shopping experience? (Yes / No)
Shopping experience	1. How did receiving rewards after the mini-game impact your overall experience? a. Improved b. No Change c. Distracting 2. How much did the rewards make you feel valued? (scale of 1 to 5) 3. Did the reward system motivate you to engage further with the application or replay the mini-game? (Yes / No)
Social Media Sharing	1. How likely are you to share your avatar or purchase on social media? (scale of 1 to 5)
Overall Experience	1. How satisfied are you with the product? (scale of 1 to 5) 2. How likely are you to recommend the application to others? (scale of 1 to 5) 3. What aspects of the prototype did you find most appealing? 4. What aspects of the prototype, if any, do you think could be improved? 5. Please feel free to share any additional comments or feedback about the prototype that you think would be valuable for us to know.

The Testers

The chosen testers for this concept consist of young athletes and sports enthusiasts, aligning with the intended target audience of the Adidas Sporty Tryouts concept. According to Don Norman, often referred to as the father of User Experience, formative usability testing is most effective when with 5 participants because in this way financial and time resources can be saved while still obtaining valuable insights into usability issues, also the first few users are likely to uncover the most critical usability problems. After 5 participants the insights gained become repetitive. This approach allows for consistent observation of recurring findings without excessive redundancy in learning outcomes.

Evaluation Results

Overview of the responses

Avatar Selection

Test	Results	Description
Task Success	100%	Avatar selection is easy to follow
Q1	4.5	Participants displayed a high degree of confidence in the avatar selection process
Q2	3	Participants displayed a good degree of connection with the brand after being able to personalise the shopping experience

Overall, the Avatar Selection seems to be easy to follow by users, proving a good usability. The results show participants are very satisfied with the feature.

Virtual Wardrobe

Test	Results	Description
Task Success	100%	Virtual wardrobe is easy to follow
Q1	60%	Participants displayed a good degree of connection with the product or brand after interacting with the avatar
Q2	60% - a 20% - b 20% - d	Trying on the outfit seems to be the most liked action, followed by interacting with the products and being rewarded for interacting in a personalised way.

Overall, the Virtual Wardrobe seems to be easy to follow by users. The results show they felt more satisfied with trying on the outfit in the Virtual Wardrobe.

Game Scenario

Test	Results	Conclusion
Task Success	100%	Game scenario is easy to follow
Q1	2.6	Participants displayed some interest in the mini game
Q2	60%	Participants displayed a good degree of enhanced shopping experience with the mini game

Overall, the Game Scenario seems to be easy to follow by users. Although the interest in the mini game was not high, participants felt an enhancing shopping experience.

Shopping Experience

Test	Results	Conclusion
Task Success	100%	Shopping is easy to follow
Q1	80% - a 20% - c	Participants displayed a high degree of improved shopping experience by receiving rewards
Q2	3.4	Participants displayed a good degree of feeling valued by receiving rewards
Q3	40%	Participants displayed less interest in feeling motivated to replay the mini game

Overall, the Shopping Experience seems to be easy to follow by users. Receiving rewards seems to be really appealing to the participants because they feel valued, although playing the mini game again was less appealing.

Social Media Sharing

Test	Results	Conclusion
Q1	2.4	Participants displayed less interest in feeling sharing their avatar of purchase on social media

Sharing their avatar of purchase on social media was less attractive to participants.

Overall Experience

Test	Results	Conclusion
Q1	3.6	Participants displayed a good degree of satisfaction with the application
Q2	3.8	Participants displayed a good degree of willing to share the application with others
Q3	…	The most appealing aspects of the application are being rewarded for spending a bit more time on the application and interacting with the clothing items from multiple angles.
Q4	…	The quality of the product could be improved, including the 3D elements to make it more realistic. Making the user feel more challenged by the game
Q5	Not filled	

Overall the application was very well welcomed by the participants saying they are also willing to share it with others. Furthermore, the application's rewards for using it longer and engaging with the clothing items from different perspectives are its most appealing features. On the other hand, the quality of the application could be greatly improved, making the 3D scenes more realistic and the overall application as well, also the game could be more challenging.

Conclusion

In general, participants had a positive reaction to the avatar selection process, expressing enjoyment in trying on outfits (60% most liked action) and engaging with a mini game that enhanced their experience (60% enhanced shopping experience by game). The rewards offered were well-received (80% improved experience by rewards), reflecting their appeal. While sharing avatars on social media was less favoured, overall satisfaction with the application was evident (72% in satisfaction), leading to a willingness among participants to recommend it to others (76% willing to share). Notably, the 3D clothing interaction and appealing rewards were highlights, though suggestions for improvement include enhancing product quality and increasing the game's level of challenge. Overall, the desirability of the application has been validated through this test given the positive feedback, as well as the results that show the usability of the application is good (all features scored 100% in task success).

Recommendation

As described before, the quality of the application could improve, which is notable given that volumetric capture was made with other techniques than intended. It is therefore advisable to run the test again with a high end volumetric capture, including an improved version of the prototype. This new prototype should include an improved version of the game with more 3D elements and a dynamic environment to make it more challenging. It was also noted by my assessors that the navigation could be shortened, specially in the avatar selection, this could be implemented in a new iteration.

The validation of the application's conversion rate remains a critical task. Before committing to any final investments and implementation, it's imperative to assess the application's conversion rate to validate the underlying concept and mitigate financial risks. To achieve this, another evaluation is necessary, one that incorporates quantitative data illustrating user interactions with the application. While methods such as preference tests or surveys can help us understand user preferences and emotional responses to design, they often fall short in providing actionable insights. Furthermore, users' perceptions don't always align with their actual behaviour, introducing the potential for response bias.

I recommend employing the A/B test method, as it not only offers a more comprehensive perspective but also yields quantifiable performance metrics based on real user interactions. This data-driven approach is essential for assessing the concept's effectiveness and its potential to significantly boost sales for Adidas. To conduct this quantitative test effectively, it is necessary to establish a test period, define the conditions necessary for concept validation, and select the appropriate tools.

References

Nielsen, J. (n.d.). *Why You Only Need to Test with 5 Users*. Nielsen Norman Group. Retrieved August 9, 2023, from https://www.nngroup.com/articles/why-you-only-need-to-test-with-5-users/