

Data Analysis Plan

Goal

The goals of this survey are to understand immersion levels and correlation to outside factors; understand user opinions of noise cancellation and understanding the psychology behind noise cancellation; understand how implementation of noise cancellation might affect users. Through understanding the general processes of how players get immersed, what it feels like for them to be immersed, and how they fall out of that immersion due to outside factors, we can understand how to potentially better the product in the future to prolong its use. Then, through getting a better understanding of the general opinions and use of noise cancellation within the user base and how they feel when they use it, we can assess if implementation of an adjustable noise-cancellation feature will benefit users' quality of immersivity, therefore prolonging use of the product.

Methods

Participants

The target participants of this survey should be users who are 18–30-year-olds who use the Meta Quest 2 primarily for gaming in order to better understand the largest demographic of gamers. However, it is not limited to this age group. These users should also own the Meta Quest 2 themselves or have regular access to it, with the ability to use it whenever they desire even if not explicitly owned by that person or in their household (I.E. easily accessible at a game lounge, at a friend's, etc.). These users can be any income with any education, as this does not affect the answers or the goals. Participants must use the Meta Quest 2 for at least 3 hours a week to ensure ample opportunity to be immersed in the MQ2.

The goal sample size is 750 people in order to get a good understanding of an array of users. This should be a manageable goal, since this product has sold millions of products and continues to have millions of active users. The incentive for completing the survey is being entered for a chance to win 25 USD worth of Meta store credits. There is one chance per 250 participants; so for 500 participants there are 2 chances, 3 for 750, and so on. Opportunities to win will be maxed at 5 winners, but participation will not be cut off.

Measures

The measures used in this survey include close-ended questions reflecting thoughts, feelings, and interactions with both the product and features that could be implemented in the future. Ranking and Likert scale questions are used to determine if users agree or disagree with qualities of the product and its immersion to get a better

understanding of the levels of immersion and the importance of immersive qualities. Closed-ended multiple choice questions are used to determine what users think of noise-cancellation, and potential implementation of the product, in order to give product managers a more straightforward answer to whether or not this new feature should be implemented.

This online survey will be distributed amongst the company's social medias and website, as well as through company newsletters and promotional emails users are signed up for. Because this is for a specific tech product, expending resources for physical surveys would be a potential waste of time and resources under the assumption that the target audience of this survey *and* product are well acquainted with general technological skills. This should reduce most bias, as it should reach a large chunk of the user base, but *may* present bias against the small and unlikely group of users that aren't familiar with general technology. Any and all users that meet the requirements are invited to participate in the online survey. This survey would be distributed once every three months over the course of a year, after each of which the data would be collected and analyzed, and after the final round they would be condensed and compared.

Data Analysis Plan

Descriptive statistics are the most useful in the analysis of this survey. Understanding the "mode," or the answers that occur the most frequently, will give a better understanding of whether or not more users do or don't feel immersed, if external noises usually break immersion, and if noise cancellation seems beneficial for the user population. Correlation analysis between the levels of immersion factors versus what usually breaks that immersion will be used to analyze if there is a connection between certain features, which will answer the question if external factors are correlated with immersion level. Comparison analysis will also be done between for the questions regarding noise cancellation, of which participants will answer whether or not they enjoy noise cancellation and if they agree that its qualities may improve immersivity- all of which are presented as yes or no questions. This will answer the question if implementation of an adjustable noise-cancellation feature would be beneficial for immersivity.



Meta Quest 2 Immersion Data Analysis



Understanding the Meta Quest 2's quality of immersivity, as well as how it is broken, can help product managers implement potential changes to better the quality and duration of use. Understanding noise-cancellation as a separate and potential future feature may improve understanding of immersivity,



40%

Immersivity Factors



15%

How Often External Factors Impact Immersivity



30%

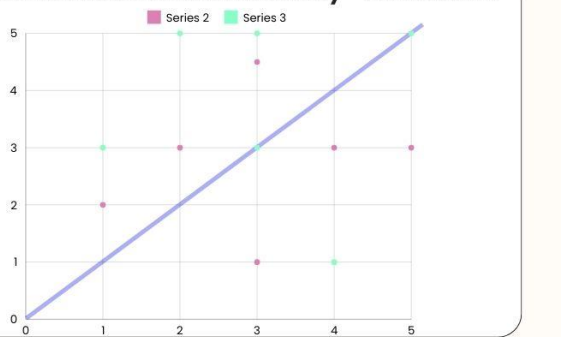
Noise Cancellation Experience



20%

Noise Cancellation and Immersivity

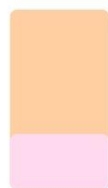
Noise Cancellation and Immersivity - Correlation



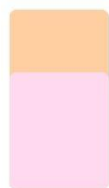
Noise cancellation



Immersivity

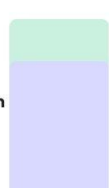


Yes - Causes Anxiety

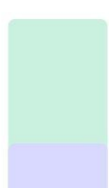


No - Does Not Cause Anxiety

Comparison



Noise Cancellation Does Help Focus



Noise Cancellation Does Not Help Focus

These measures would be taken 4 times over the course of a year, or once every three months. After each month analyses will be made, and at the conclusion of the year the data will be compared and condensed.