How Technology Is Personalizing the Interior Design Process and Improving Customer Satisfaction

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INTRODUCTION

Recently, there has been new technology that could improve the interior design process and prove the significance of interior design to mental health. VAS (visual attention software) and GSR (galvanic skin response) could both be used to measure a viewer's fixation on specific design elements. This technology can therefore be used to personalize the design to the client and improve their mental happiness and health. Most people think of interior design as an elective or as a superficial privilege. However, it has been scientifically proven that aesthetic experiences are our revolutionary imperatives, meaning that they are essential to our health, well-being, and overall happiness.

RESEARCH METHODOLOGIES

My methodology is observational, as I won't be experimenting but rather observing others' experiments with these technologies and verifying their functionality with a Peardeck survey where students can interact with the images. My sample will be a group of around 100 people, ages 16-18, from LBHS. My questions could verify Google's experiment using GSR smart bands to read emotions felt by a sample of people entering the same rooms I displayed in the survey. Though I don't have access to the GSR technology yet, my survey could reveal a connection between various interior elements and human emotional reaction to their environments, which can be used by interior designers who may utilize GSR for their design process. My questions could also verify the VSR technology and how it predicts what viewers will be most attracted to, and if this correlates with my survey answers. I will analyze my data observationally, concluding all of the useful responses with qualitative outcomes verifying or discrediting the technology's useability and previous experiments and claims made. Ultimately, I will be determining whether or not these technologies will be useful for interior designers to use in their businesses in the future and how people react to certain interiors.

DISCUSSION, ANALYSIS, AND EVALUATION

Figure 1: The majority of students felt comfortable in these warm-lit and cozy environments, but also felt sleepy and bored. This effect might be useful in the living room where people are meant to relax, but negative in the dining room where people often work, cook, and socialize.
Figure 2: The majority of students felt overwhelmed in these cold-lit and modern environments, but also felt bored and motivated. These two very different effects varies from person to person so it is important to keep in mind what the purpose of the room is and what kind of environment is needed for you personally.
Figure 3: What students found to be the main focus of the room is somewhat reflective of what the VAS report found however the VAS report displayed a significant amount of focus on the ceiling that was not found in the students' report.
Figure 4: What students found to be the main focus of the room is mostly reflective of what the VAS report found which indicates that this room is well balanced. This interior was also chosen as the most comfortable living room by the students.

DATA AND FINIDNGS
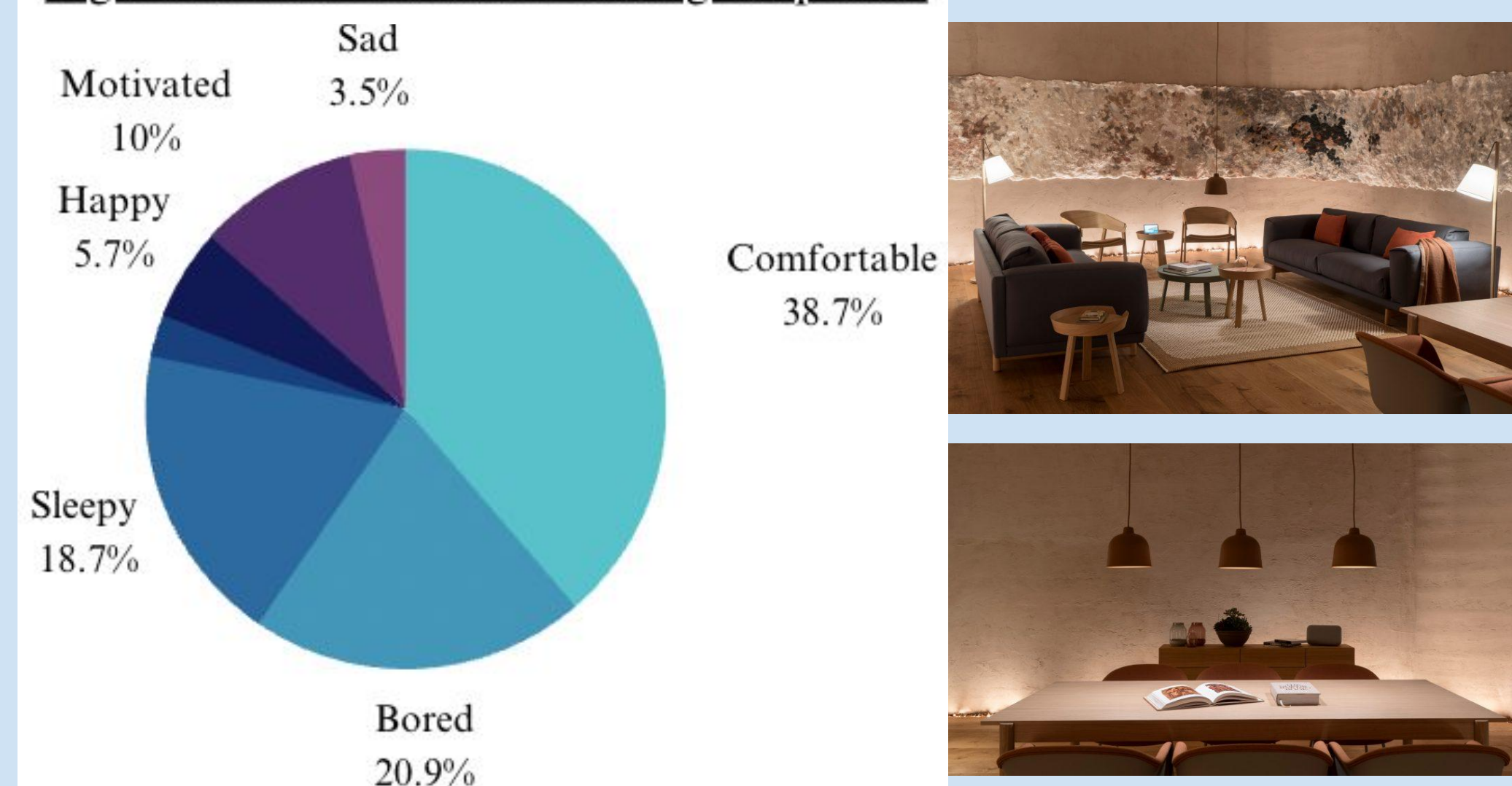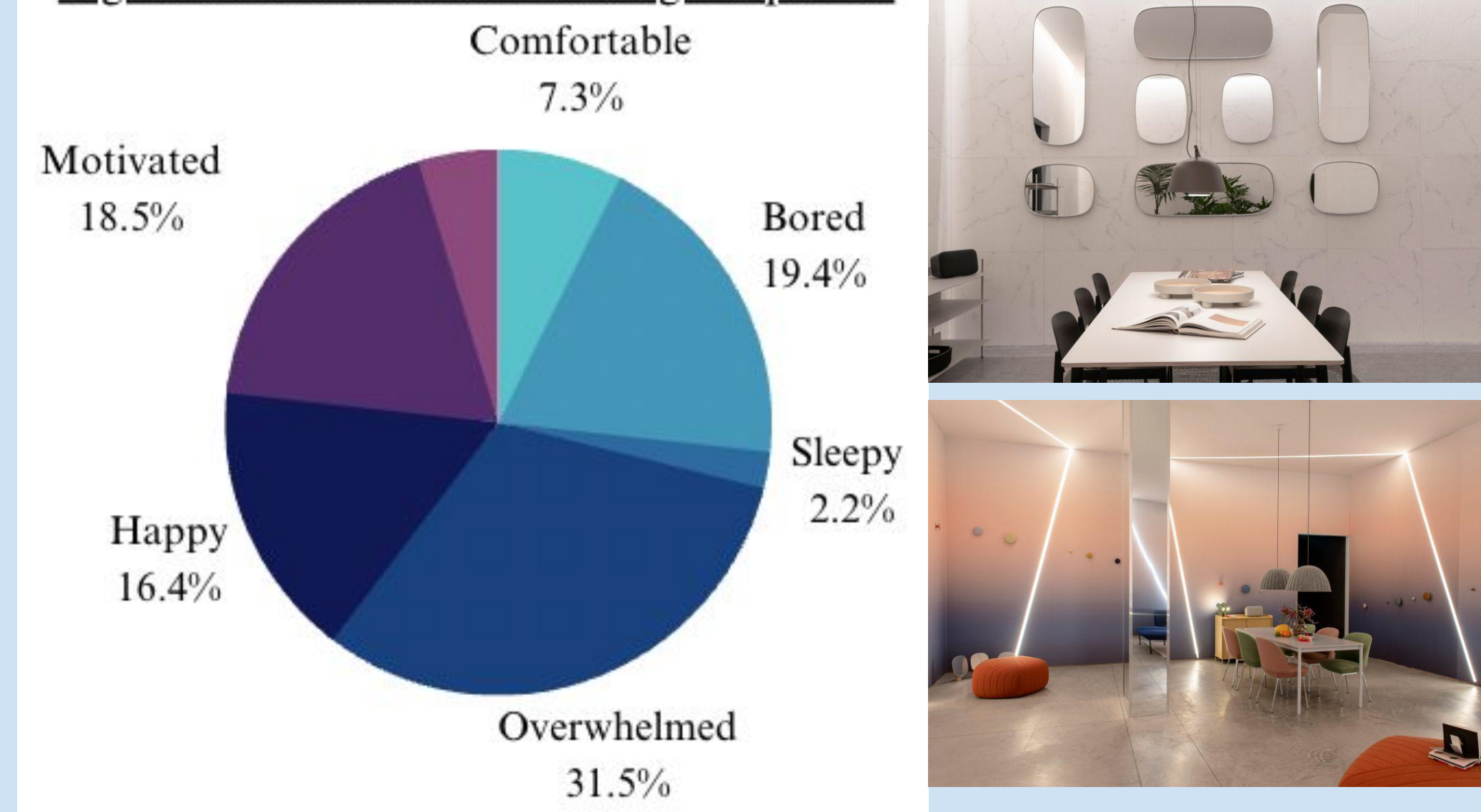

Figure 1: Warm-lit Room Feeling Responses

Figure 2: Cold-lit Room Feeling Responses

Students chose what they felt when imagining themselves in these interiors used in Google's GSR experiment

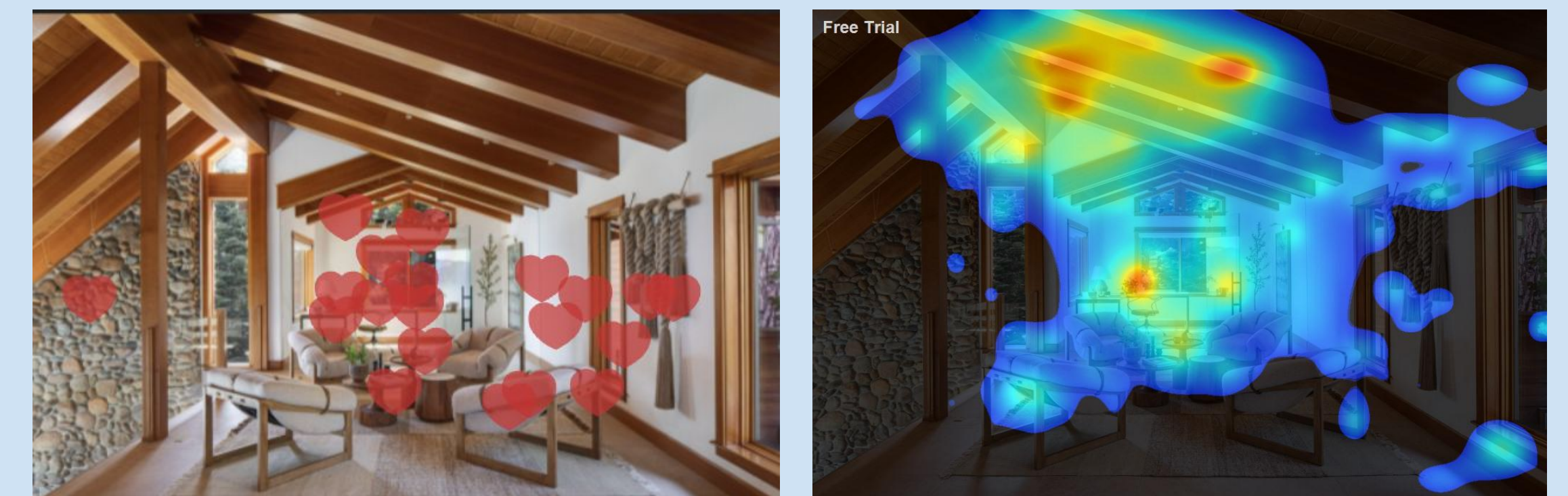Figure 3: What the Eye Was Drawn To vs. VAS Report

Figure 4: What the Eye Was Drawn To vs. VAS Report

Left: students dragged the hearts to what their eyes were most drawn to in the Jen Samson Design Interior.
Right: VAS technology predicting what the eyes are most drawn to.

CONCLUSIONS, IMPLICATIONS, AND NEXT STEPS

In conclusion, my survey reveals that different interior elements have different effects on people and how they react to their environment. Interiors with earthy, neutral colors and warm lighting provide a great space for relaxation and sleep, while spaces with bright colors and cold lighting can provoke motivation or happiness. However, it is important to make sure these cold-lit and bright interiors aren't too distracting or overwhelming by creating balance and harmony in the design. The top two favorite living room designs chosen by the students were the interiors with the most spread out visual focus, indicating their balance. The VAS reports corresponded with the student's survey very well, as the heat mapping and hearts grouped in mainly the same areas. This discovery confirms the reliability of VAS technology to predict where viewers eyes will be drawn and how visually balanced an interior may be. This survey could potentially be useful to my mentor or anyone who acquires GSR technology in the future as I found a connection between interior elements and human emotion when I found that students had similar reactions to the varying images from the Google GSR experiment. One thing to note is that many respondents are students in Laguna Beach, which is a high socio-economic area, and many live in well-designed homes. This may have skewed the results.

ACKNOWLEDGEMENTS / REFERENCES

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