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A Revitalized Lecture Experience: Improving the learning of the ‘two-wheeler helmet design’ case study by rich media and illustrations

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Declaration

I declare that this written document represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea, data, fact, or source in my submission. I understand that any violation of the above will be cause for disciplinary action by the institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Project Approval

The DES Project titled “A Revitalized Lecture Experience: Improving the learning of the ‘two-wheeler helmet design’ case study by rich media and illustrations” by Mithun Murali, Roll Number 216330008 is approved, in partial fulfillment of the Masters Degree in Interaction Design at the IDC School of Design, Indian Institute of Technology Bombay.

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Guide: B. K. Chakravarthy

Introduction

This project involved re-shooting an existing video lecture on designing an innovative collapsible helmet for Indian motorcycle riders. The goal of this project is to improve the learning experience of the case study using rich media and illustrations. By providing a sneak peek of the final product at the beginning of the lecture, we were able to generate excitement among the students. By showcasing actual mock-ups and prototypes of the product, learners are able to better visualize and understand the design journey, which can enhance their learning experience. The modifications made to the content order were intended to increase students' attention span and make the learning experience more engaging and interactive.

Scope

The scope of this project is to re-create the video recording of the classroom lecture that explain the case study in a more effective manner so that the students understand the significance of the user centric design. The project aims to explore a different take on the classroom lecture by non linier case study explanation.

Analysis of the original video

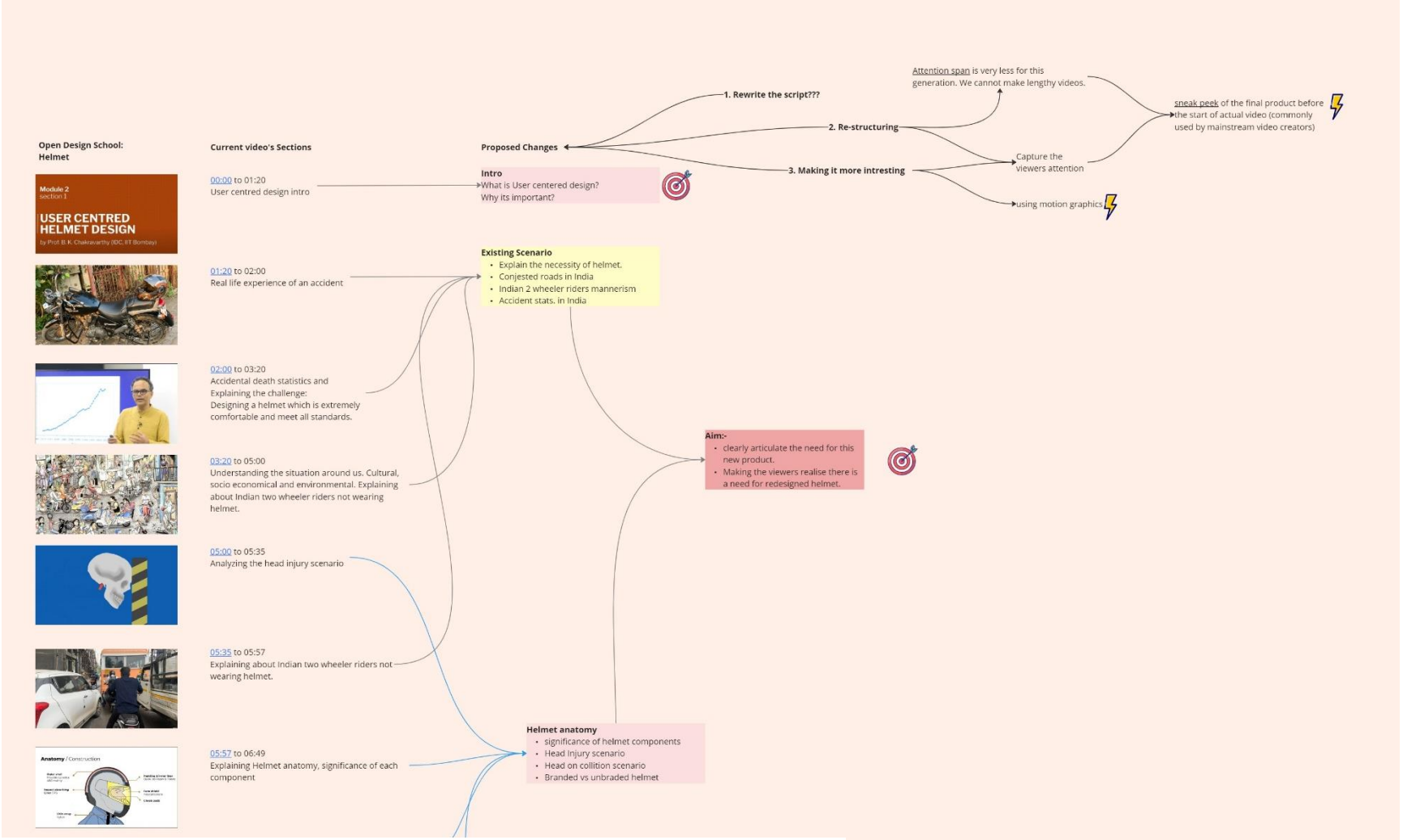

Fig 1: Glimpse into the breaking down stage of the video

Restructuring: Creating Storyboards

After analyzing the existing video lecture. Necessary areas are identified that can be implemented in the new video lecture. The content has been reorganized and divided into parts. Certain sections were merged for the narrative, while others were incorporated from the book on helmet design. After this, a storyboard for the video was created and put together.

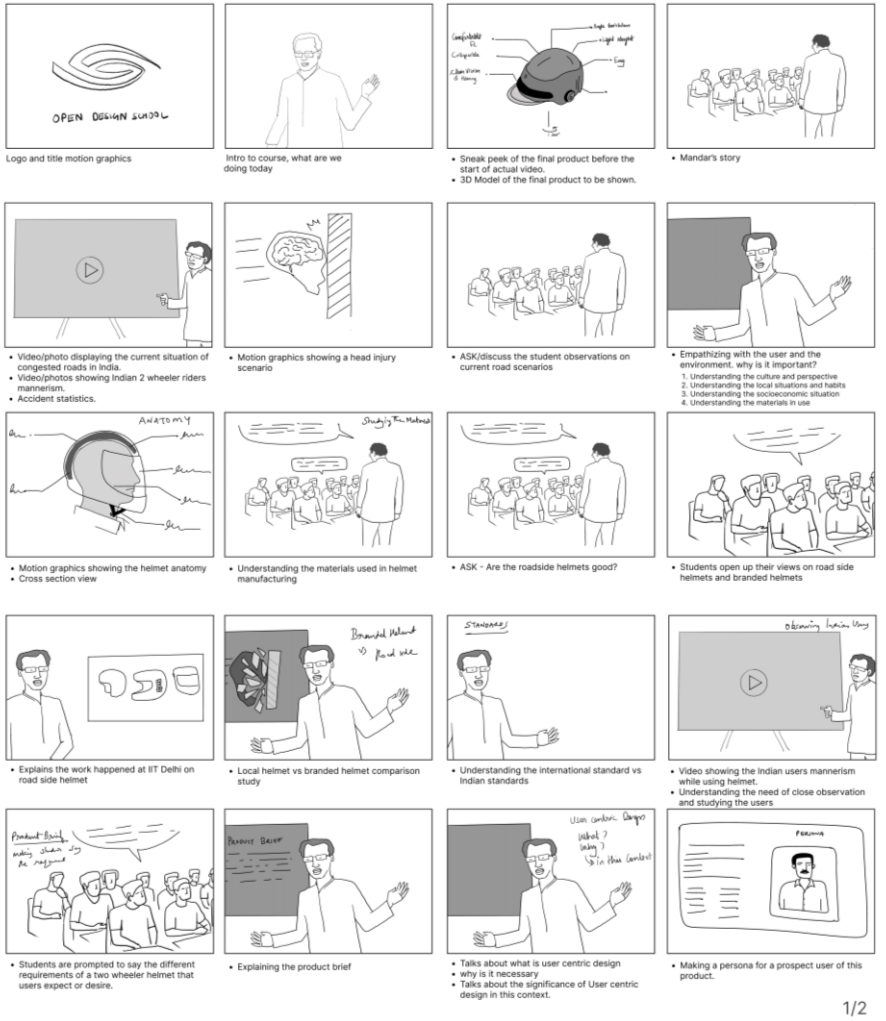

Fig 2: A section of the new storyboard

Re-shooting the video

Once the restructured storyboard is finalized, cue cards are made for the video along with a slide presentation to be shown in the classroom. All prototypes are also displayed simultaneously with the lecture by Prof B.K. Chakravarthy.

The major change that is being implemented in this reshoot is the showcase of the final product even before the beginning of the case study. This enabled the students in the classroom to connect with the end product and visualize and comprehend the case study as it progressed. This also made the classroom very lively and proved to be an excellent method to create curiosity, interest, and appreciation in students to find out how the designer arrived at this final product through various steps and processes.

Fig 3: Lecture reshooting

Fig 4: Interactive session in between the lecture

Final cut

Rich media components in the form of illustrations, and videos of normal road scenarios are included in the final version to facilitate the explanation of concepts. Illustrations are made using Procreate application which can be included in the new version as well as any future versions of the video lecture. Comic-style illustrations are used to make it more interesting to a wide variety of audiences.

Fig 5: Illustration showing the Indian road scenario

Fig 6: Illustration showing the Indian road scenario

Acknowledgment

I would like to express my sincere gratitude to Prof. B. K. Chakravarthy for guiding me throughout this project. I would also like to extend my gratitude to the following members of the Shenoy Innovation Studio, who played a significant role in the successful completion of this project: Ms. Akanksha, Mr. Kushal, Mr. Aniket, and Intern Mr. Deepak. I would also like to extend my appreciation to all the supporting staff and colleagues who provided assistance and resources while shooting the video.