

Supplementary Materials

VIRD: Immersive Match Video Analysis for High-Performance Badminton Coaching

Post-study Survey

Please share your experiences with VIRD in the following survey. Select from a 5-point Likert scale from “Strongly disagree”, “Somewhat disagree”, “Neither agree nor disagree”, “Somewhat agree”, or “Strongly agree”.

Tool learnability

- It was easy to learn the features in our tool.
- It was easy to understand the main idea behind the **shot-to-rally** analysis method.
- It was easy to understand the data provided in **summary panel**.
- It was easy to understand the data provided in **heatmap**.
- It was easy to understand the function of **shot filters**.
- It was easy to understand the function of **shot trajectories**.
- It was easy to understand the function of **video panel**.

Tool usability

- It was easy to use VIRD for analyzing match video.
- It was easy to get an **overview** of the match performance.
- It was easy to **filter** to interesting rallies or shots to analyze.
- It was easy to **identify** the patterns on the winning/losing shots.
- It was easy to **navigate** to the desired rally clips.
- It was easy to **verify** your analysis insights.

Tool usefulness

- VIRD was helpful in **finding shot patterns**.
- VIRD was helpful in **verifying my observations**.
- VIRD was helpful in **explaining coaching advices**.

3D Visualization usefulness

- **3D virtual court with flexible view points** was helpful in match analysis.
- **Dynamic 3D shot trajectories** was helpful in match analysis.
- **3D player posture** was helpful in match analysis.
- **Using VR controller to select and navigate** was helpful in match analysis.

Overall experiences

- I felt **satisfied with VIRD** in helping me analyze the match video.
- I felt **engaged** using VIRD to analyze match video.
- I **prefer** to use VIRD for future match analysis.

Post-study interview questions

1. What features are most helpful for you to analyze match video?
2. What were the pros/cons of using our tool to analyze the match video compared to the traditional way? (more data, easier workflow, 3D visualization, easier interaction...)
3. What improvement do you want in order to use this tool in your actual work?
4. How do you imagine using this tool to communicate your advice to the player?