**VISUALISATION CONTEXT**

1. **WHO? KNOW YOUR AUDIENCE**

* **Primary Audience**: Students from 10 Top sports college in India
* **Narrowed Audience**: HOD of the sports department who could use this data for improving training practices
* **Audience Concerns:**
* Understanding which sports are most physically and mentally demanding so that their training can be enhanced based on it
* Structuring their academic curriculum based on physical and mental demand of a sport
* **Action Required:**
* The insights from this analysis can be used to improve their training practices or to bring awareness about the mental and physical demands of various sports
* Structuring academic curriculum based on physical and mental demand of a sport
* **What’s at stake:**
* **Benefit**: Enhanced training programs and also academic discussions can be aligned based on physical and mental demand of a sport
* **Risk**: Missing out optimal training and potentially affecting the student’s performance

1. **What?**

* Which sports rank the highest based on overall difficulty score
* Which attributes are the most crucial in determining the difficulty
* How attributes are distributed across different sports

1. **BIG IDEA:**

* Understanding the demands of various sports can greatly influence training program as well as academics, ensuring students are prepared for the challenges

1. **HOW?**

* **Chart1: Top 10 sports with highest difficulty score**
* **Type**: Horizontal Bar Chart
* **Reason**: Horizontal Bar chart type provides a clear comparison of all sports
* **Gestalt**
  + **Proximity:** Bars are placed very close to each other which represents difficulty score across sports
    - **Continuity**: Bars are arranged in sequential to order(highest to lowest) which reflects the data’s natural progression
    - **Figure/Ground**: Bars are made to standout clearly against the background, with sufficient contrast between bars and chart’s background
* **Pre-attentive** **Attributes**:
  + - **Colour**: Contrast colours are used to highlight top 10 most demanding sports
    - **Length**: Length of the bars immediately draws attention to the most demanding sports
* **Chart2: Comparison of multiple attributes of a sport**
* **Type**: Horizontal Bar chart
* **Reason**: Horizontal Bar chart type provides clear comparison of attributes of a sport
* **Gestalt**
* **Similarity**: Consistent colours of bars representing same sport
* **Proximity**: Bars are placed very close to each other which represents attribute score of a sport
* **Figure/Ground**: Bars are made to standout clearly against the background, with sufficient contrast between bars and chart’s background
* **Pre-attentive** **Attributes**:
* **Position**: Bars are aligned horizontally along a common baseline each attribute group on y-axis
  + - **Length**: Length of the bars immediately draws attention to how attributes scores are distributed for a sport
* **Chart3: Distribution of attributes across all the sports**
* **Type**: Line Chart
* **Reason**: It helps to track the change in attributes across different sport
* **Gestalt:** 
  + - **Proximity:** Data points that are closed together on the line chart are perceived as related or part of the same sport
    - **Continuity:** Smooth, Continuous lines guide the viewer’s eye along a path, making it easier to follow changes of attributes across different sport
    - **Figure/Ground:** Clear contrast between two lines being compared and rest of the lines for easy comparison
* **Pre-attentive Attributes:**
* **Colour**: Different colours are assigned for the two lines being compared and rest of the lines
* **Position**: Lines are positioned on a shared axis which allows for a direct comparison between any two sports
* **Reference:** https://github.com/HarshaK1997/SEM2-DV