Indian Kids Screen Time

1. Age

- Represents the age of the child (numeric).

- Used to calculate recommended screen time.

2. Gender

- Categorical (Male / Female).

- Useful for comparing screen time trends by gender.

3. Urban_or_Rural

- Location category: *Urban* or *Rural*.

- Helps in analyzing lifestyle and screen usage patterns by region.

4. Primary_Device

- Main device used (Phone, Tablet, TV, Laptop, etc.).

- Important for identifying which devices contribute most to screen exposure.

5. Avg_Daily_Screen_Time_hr

- Total daily average screen time (in hours).

- This is the base column for almost all calculations.

6. Educational_to_Recreational_Ratio

- Ratio of **educational screen time** to **recreational screen time**.

- Example: 0.5 means for every 1 hr of recreation, 0.5 hr is educational.

7. Recommended_Screen_Time_hr *(calculated column)*

VAR Age = Indian_Kids_Screen_Time[Age]

RETURN

  SWITCH(

    TRUE(),

    Age <= 10, 2.0,

    Age <= 13, 2.5,

    Age <= 16, 3.0,

    Age <= 18, 3.5,

    BLANK()

)

Sets screen time recommendations by age group:

- ≤10 yrs → 2 hrs
- ≤13 yrs → 2.5 hrs
- ≤16 yrs → 3 hrs
- ≤18 yrs → 3.5 hrs

8. Exceeded_Recommended_Limit_By_Age *(calculated column)*

IF(

    Indian_Kids_Screen_Time[Avg_Daily_Screen_Time_hr] > Indian_Kids_Screen_Time[Recommended_Screen_Time_hr],

    "Exceeded",

    "Within Limit"

)

Flags whether a child's screen time is **Exceeded** or **Within Limit** compared to the recommended value.

9. Recreational_hr *(calculated column)*

DIVIDE([Avg_Daily_Screen_Time_hr], 1 + [Educational_to_Recreational_Ratio])

Breaks down daily screen time into **recreational hours**.

10. Educational_hr *(calculated column)*

[Avg_Daily_Screen_Time_hr] - [Recreational_hr]

Derives **educational screen hours** from the remainder of total time.

11. Health_Impacts *(calculated column)*

Health_Impacts =

VAR ScreenTime = Indian_Kids_Screen_Time[Avg_Daily_Screen_Time_hr]

VAR Ratio = Indian_Kids_Screen_Time[Educational_to_Recreational_Ratio]

RETURN

    SWITCH(

        TRUE(),

        ScreenTime <= 2 && Ratio >= 0.5, "None",

        ScreenTime > 4, "Poor Sleep",

ScreenTime > 3, "Eye Strain",

Ratio < 0.35, "Anxiety",

ScreenTime > 3 && Ratio < 0.4, "Obesity Risk",

BLANK()

)

Condition Explanation

1. **None →**

   - If Avg_Daily_Screen_Time_hr ≤ 2 **and** Educational_to_Recreational_Ratio ≥ 0.5

   - Means healthy balance with more educational use.

2. **Eye Strain →**

   - If Avg_Daily_Screen_Time_hr > 3

3. **Poor Sleep →**

   - If Avg_Daily_Screen_Time_hr > 4

4. **Anxiety →**

   - If Educational_to_Recreational_Ratio < 0.35

   - (too much recreational usage compared to educational)

5. **Obesity Risk →**

   - If Avg_Daily_Screen_Time_hr > 3 **and** Educational_to_Recreational_Ratio < 0.4

Key Measures (KPIs)

1. **Average Educational to Recreational Ratio**

   Average Educational to Recreational Ratio =

   AVERAGE(Indian_Kids_Screen_Time[Educational_to_Recreational_Ratio])

   - This measure calculates the **mean ratio** of **educational screen time** to **recreational screen time** across all kids in the dataset.
   - A **higher ratio (>1)** → More time is spent on **educational activities** compared to recreational ones.

- A **lower ratio (<1)** → Kids are spending more time on **recreational usage** (games, social media, entertainment).

2. **Average_Educational_hr**

Average_Educational_hr =

AVERAGE(Indian_Kids_Screen_Time[Educational_hr])

- This calculates the **average daily hours** kids spend on **educational screen activities** (e.g., online classes, study apps, learning videos).
- It focuses only on the **educational portion** (derived earlier from total screen time minus recreational hours).
- Higher values → kids are effectively using screen time for **learning**.
- Lower values → kids' educational engagement is **less compared to entertainment usage**.

3. **Average_Recreational_hr**

Average_Recreational_hr =

AVERAGE(Indian_Kids_Screen_Time[Recreational_hr])

- This calculates the **average daily hours** kids spend on **recreational screen use** (e.g., games, YouTube, social media, streaming).
- It is the counterpart of **educational hours**, derived from the ratio formula.
- Higher values → screen time is **entertainment-heavy**.
- Lower values → kids have **more balanced or study-oriented screen usage**.

4. **Avg Screen Time**

Avg Screen Time =

AVERAGE(Indian_Kids_Screen_Time[Avg_Daily_Screen_Time_hr])

- This gives the **overall average daily screen time (in hours)** across all kids in the dataset.
- It represents a **single benchmark value** of how much screen time kids are spending on average each day (educational + recreational combined).
- Higher values → kids are **spending more time on screens** than recommended limits.
- Lower values → screen time is closer to **healthy digital habits**.

5. **Avg_Ratio_Exceeded**

Avg_Ratio_Exceeded =

CALCULATE(

   AVERAGE(Indian_Kids_Screen_Time[Educational_to_Recreational_Ratio]),

   FILTER(

     Indian_Kids_Screen_Time,

     Indian_Kids_Screen_Time[Exceeded_Recommended_Limit_By_Age] = "Exceeded"

)

)

- This measure calculates the **average Educational-to-Recreational Ratio** only for kids who have **exceeded the recommended screen time limit**.
- It focuses on a **subgroup** of kids (the "Exceeded" category).
- If the ratio is **low** → most of the extra time is spent on **recreational activities** (games, social media, etc.).
- If the ratio is **high** → even though time exceeded, a significant portion is still **educational**.

6. **Avg_Ratio_Within_Limit**

Avg_Ratio_Within_Limit =

CALCULATE(

   AVERAGE(Indian_Kids_Screen_Time[Educational_to_Recreational_Ratio]),

   FILTER(

     Indian_Kids_Screen_Time,

     Indian_Kids_Screen_Time[Exceeded_Recommended_Limit_By_Age] = "Within Limit"

)

)

- This measure finds the **average Educational-to-Recreational Ratio** only for kids who are **within the recommended screen time limit**.
- It acts as the **healthy benchmark** against which Avg_Ratio_Exceeded can be compared.
- A **higher ratio** here usually means that limited screen time is being used more for **educational purposes** than recreation.

7. **Exceeding Rate**

Exceeding Rate =

DIVIDE(

   CALCULATE(

     COUNTROWS(Indian_Kids_Screen_Time),

     Indian_Kids_Screen_Time[Exceeded_Recommended_Limit_By_Age] = "Exceeded"

   ),

   COUNTROWS(Indian_Kids_Screen_Time),

   0

)

This calculates the **proportion of kids** who **exceed their recommended screen time limit**.

It is expressed as a **rate (percentage)** of total kids.

Formula logic:

- **Numerator** → Count of kids labeled "Exceeded".

- **Denominator** → Total number of kids in the dataset.

- **Result** → Fraction (e.g., 0.42 = 42% kids exceed).