

# **Screen Sense Kids' Screentime Visualization**

**Milestone 03 Report (Week 5 & Week 6)**

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## OBJECTIVE

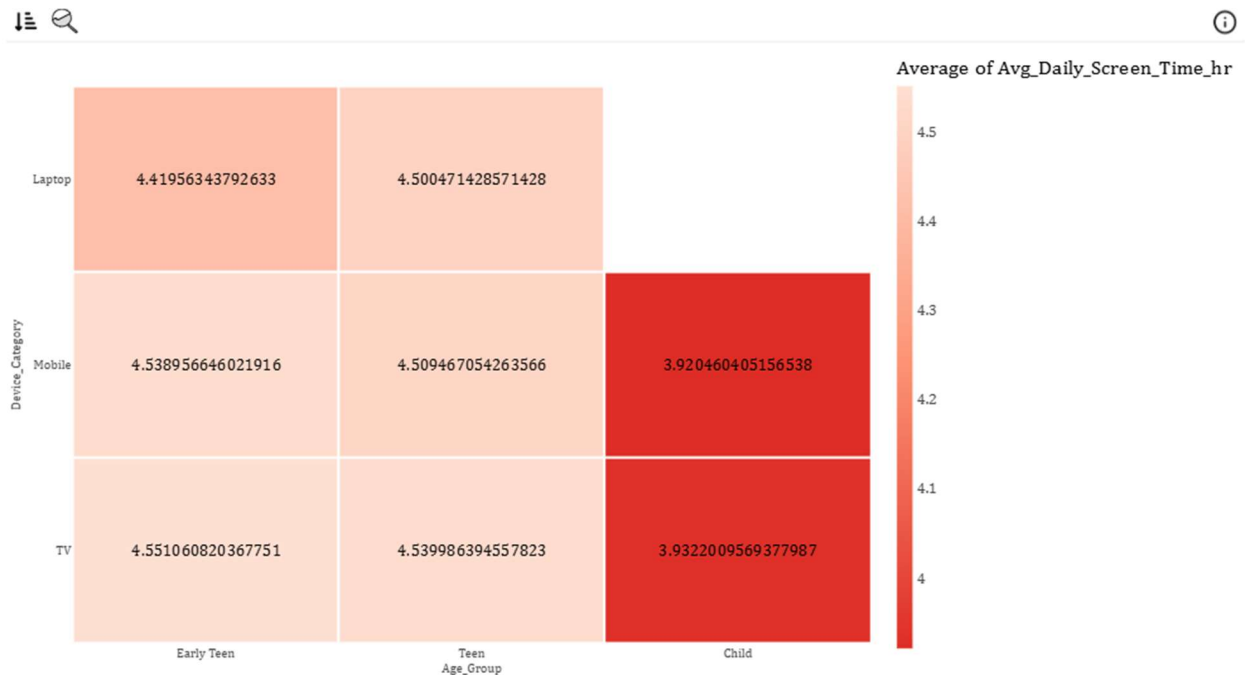
The objective of Milestone 3 is to analyze user segments and behavioral patterns to identify high-risk cohorts, screen-time habits, and demographic differences. Week 5 focuses on cohort segmentation and demographic insights, while Week 6 identifies behavioral habits such as weekday vs weekend usage and device-based risk patterns. The milestone delivers segment summaries, habit insights, and KPI indicators to support actionable understanding of screen-time behavior.

## Week 05 – Cohort and Segment Analysis

### Cohort Analysis:

#### Age Group × Device Category

Average of Avg\_Daily\_Screen\_Time\_hr by Age\_Group and Device\_Category



### OUTPUT:

The heatmap shows average daily screen time for each Age Group + Device combination.

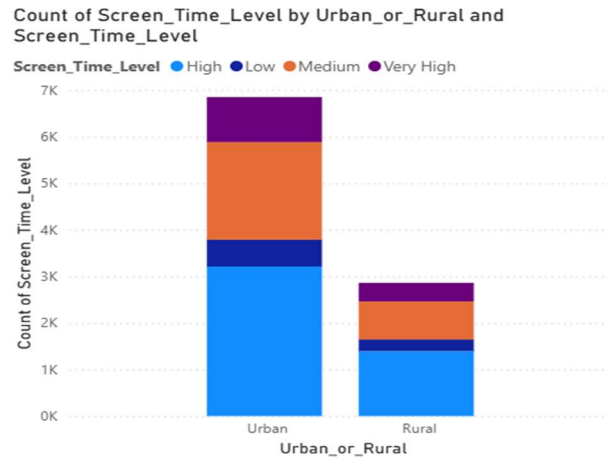
- Teens and Early Teens show ~4.5 hrs across devices.
- Children using TV or Mobile have slightly lower screen time (~3.9 hrs).

### INSIGHT

- Teens using Mobile/TV are the highest screen-time cohort.
- Children show lower screen-time because they spend more time on educational content.

## Segment Analysis:

### Urban or Rural × Screen Time Level



#### OUTPUT:

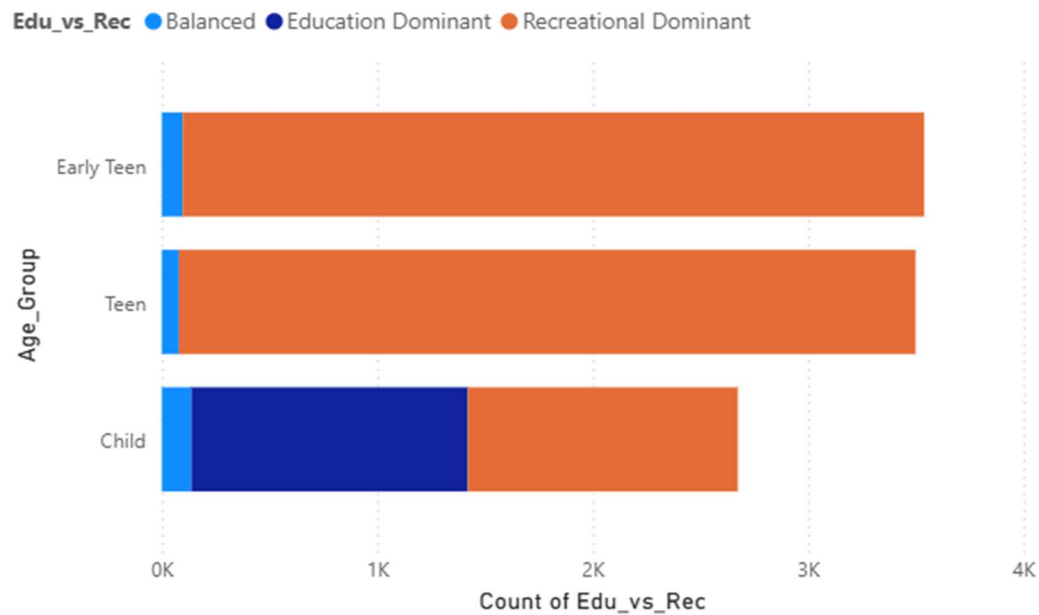
Urban users have much higher counts in all screen-time levels—especially High and Very High categories.

#### INSIGHT:

- Urban children have more screen exposure due to greater device accessibility and internet availability.
- High/Very High categories dominate in urban areas.

## Age Group × Edu vs Rec

Count of Edu\_vs\_Rec by Age\_Group and Edu\_vs\_Rec



### OUTPUT:

- Children are more **Education Dominant** usage
- Teens & Early Teens: Strong **Recreational Dominant** usage (video apps, games)

### INSIGHT:

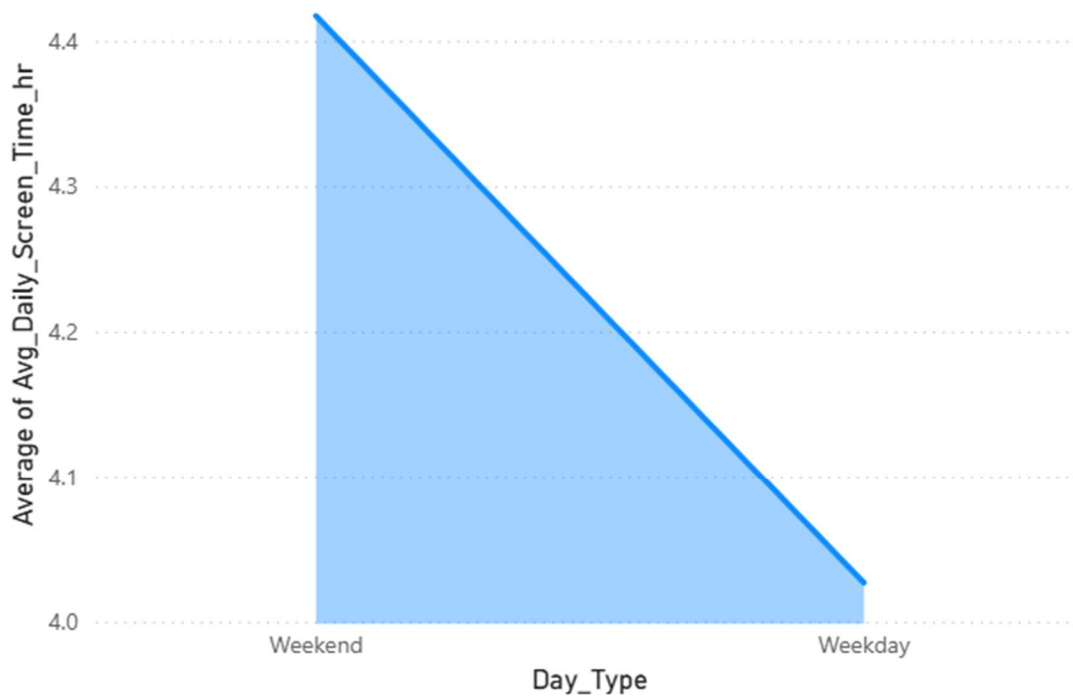
- Recreational usage increases with age.
- Children use screens mainly for education, while Teens use screens mostly for entertainment.

## Week 06 – Seasonal/Calendar or Habit Patterns

### Habit Patterns:

#### Weekday vs Weekend Avg Screen Time

Average of Avg\_Daily\_Screen\_Time\_hr by Day\_Type



#### Output:

- Weekend average screen time  $\approx 4.43$  hours
- Weekday average screen time  $\approx 4.05$  hours

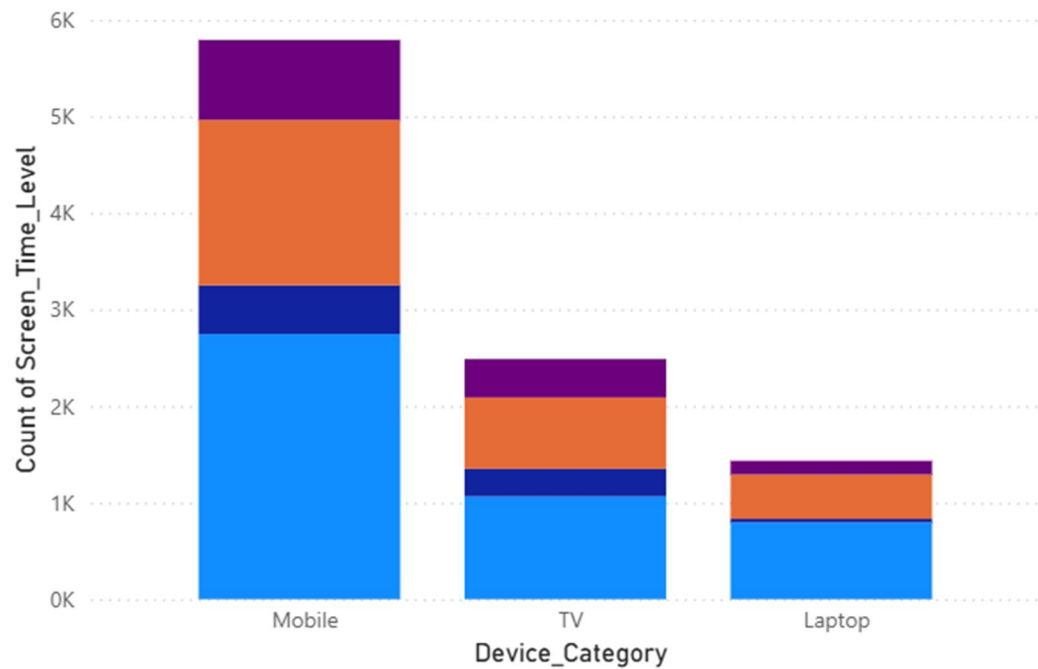
#### Insight:

- Children spend significantly more time on screens during weekends compared to weekdays.

## Screen Time Level × Device Category

Count of Screen\_Time\_Level by Device\_Category and Screen\_Time\_Level

Screen\_Time\_Level ● High ● Low ● Medium ● Very High



### OUTPUT:

- Mobile has the highest count in High + Very High screen-time levels
- TV moderate, Laptop lowest

### INSIGHT:

- Mobile is the most addictive device
- Most high-risk users depend on mobile screens

## KPI-based habit insights:

### Avg Screen Time (hrs.)

Avg Screen Time (hrs)  
4.4

```
Avg Screen Time (hrs) =  
AVERAGE( Sheet1[Avg_Daily_Screen_Time_hr] )
```

#### Output:

- Overall average screen time for all users.
- Users average ~4.4 hrs → higher than recommended limits.

### Pct Above Limit (Percentage Above Safe Limit)

Pct\_Above\_Limit  
85.5%

```
Pct_Above_Limit =  
DIVIDE(  
  CALCULATE(  
    COUNTROWS( Sheet1 ),  
    Sheet1[Exceeded_Recommended_Limit] = TRUE()  
  ),  
  COUNTROWS( Sheet1 ),  
  0  
)
```

#### Output:

- % of users who **exceed WHO's recommended screen usage**
- **85.5% users exceed safe limit** → major digital wellness concern.



## Most Used Device

Smartphone (4,568)

Most\_Used\_Device

```
Most_Used_Device =  
VAR DeviceCounts =  
    SUMMARIZE(  
        Sheet1,  
        Sheet1[Primary_Device],  
        "Cnt", COUNTROWS(Sheet1)  
    )  
VAR TopDeviceRow =  
    TOPN(1, DeviceCounts, [Cnt], DESC)  
RETURN  
    CONCATENATEX(  
        TopDeviceRow,  
        [Primary_Device] & " (" & FORMAT([Cnt], "#,0") & ")",  
        ", "  
    )
```

### Output:

- Shows the device with highest dependency.
- Smartphone is used by majority of students → highest risk device.

## Top Cohort Name & Hrs.

Early Teen + TV (4.55 hrs)

TopCohort\_Name

```
TopCohort_Name =  
VAR cohortTable =  
    SUMMARIZE(  
        Sheet1,  
        Sheet1[Age_Group],  
        Sheet1[Device_Category],  
        "AvgST", AVERAGE(Sheet1[Avg_Daily_Screen_Time_hr])  
    )  
VAR topCohortRow = TOPN(1, cohortTable, [AvgST], DESC)  
RETURN  
    CONCATENATEX(  
        topCohortRow,  
        [Age_Group] & " + " & [Device_Category] & " (" & FORMAT([AvgST], "0.00") & " hrs)",  
        ", "  
    )
```

### Output:

- Identifies the Device with the highest average screen time
- Useful for targeted awareness programs.

## Count High & Very High

5972

Count\_High\_VeryHigh

```
Count_High_VeryHigh =  
CALCULATE(  
    COUNTROWS( Sheet1 ),  
    Sheet1[Screen_Time_Level] IN { "High", "Very High" }  
)
```

### Output:

- Total number of extreme screen-time users.
- 5972 users fall in high-risk categories → needs immediate attention.

## CONCLUSION

Milestone 3 provides a comprehensive understanding of who uses screens the most, what devices they depend on, and how their behaviour changes across contexts. The combination of Week 5 segment analysis and Week 6 habit insights enables clear identification of high-risk cohorts, behavioural drivers, and potential areas for intervention. These results from the analytical foundation required for the final dashboard, offering evidence-based insights for parents, educators, and policymakers to understand and address screen-time challenges in children and teens.