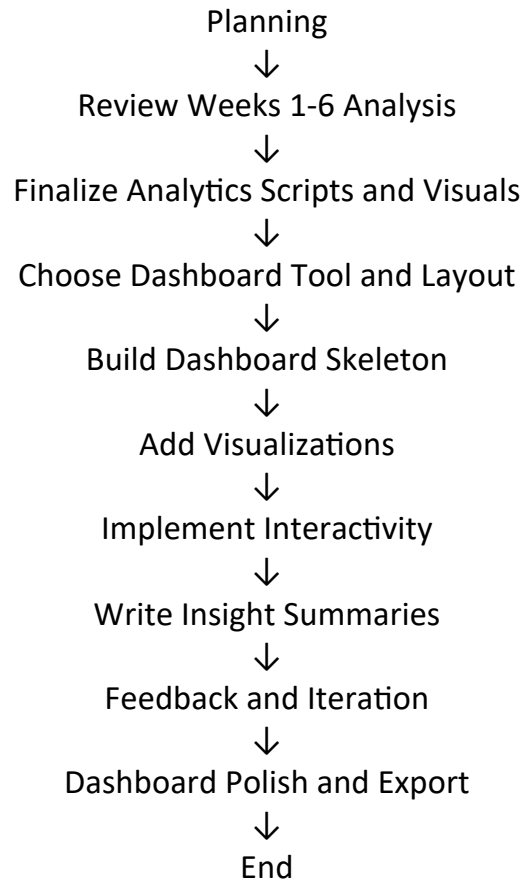


Week 7 Plan

Flowchart



Dashboard Structure & Platform

- Tool- Tableau
- modular layout: separate tabs/pages for “Overview”, “User Segments”, “Device Patterns”, “Awareness & Health”, “Demographics”, “Time Trends”, and “Policy Recommendations”.
- Build with navigation, filtering, and drilldown so users can explore specific age groups, devices, locations, awareness levels, and health outcomes.

KPIs

- **Average Daily Screen Time:** Mean hours of screen use per user per day, segmented by age group, device, or gender.
- **Exceeded Recommended Limit:** Proportion or count of users exceeding WHO/APA daily recommended screen time.
- **Device Mix Share:** Percentage of screen time split across devices (e.g., smartphone, laptop, TV, tablet).
- **Screen Time by Segment:** Usage comparison across key demographic cohorts like age bands, gender, and rural/urban.
- **Weekday vs Weekend Patterns:** Mean or median screen time on weekdays versus weekends.
- **Seasonal or Calendar Peaks:** Screen use spikes by month, term, or holiday periods.
- **Awareness Segment Distribution:** Number of users by awareness category (e.g., "Need Attention," "Moderate Concern," etc.).
- **Exceeded Limit Cohorts:** Top cohort combinations (age, device) exceeding safe use thresholds.
- **Health Impact Proportion:** Ratio of users reporting physical, mental, or combined health effects.
- **Educational-to-Recreational Ratio:** Portion of screen time spent on educational versus recreational activities.
- **Urban vs. Rural Device Access:** Device ownership or access rate per location type.
- **Demographic Pyramid:** Urban/rural split by age and gender for user base visualization.
- **Portable vs Wall-mounted Device Penetration:** Comparison of mobile versus stationary device use by segment.
- **Top Risk Segments:** Explicit focus on outlier cohorts (e.g., teens using TV/tablets above 4.5 hours).
- **Outlier Duration Trends:** Identification of user groups with excessive, high-risk usage (11+ hrs).
- **Activity Category Split:** Time spent per category (e.g., gaming, social media, learning).
- **Cohort Contribution to Total Screen Time:** Which cohorts contribute most disproportionately to total system usage.

KPIs Researchers and Doctors Want:

- Total and Average Daily Screen Time by age, device type, gender, and location, to identify high-risk populations and developmental windows.
- Proportion Exceeding Recommended Limits, based on established guidelines, to measure adherence and target interventions.
- Health Outcome Associations such as correlations with sleep quality, mental health (anxiety, depression), obesity, and eye strain indicators.
- Device-Specific Usage Metrics to clarify which screens (smartphones, tablets, TV) carry more risk or prolonged exposure.
- Temporal Patterns including weekday/weekend, academic term vs holiday, and time-of-day usage spikes to understand behavioral rhythms.
- Awareness and Behavior Gap Analysis contrasting awareness of risks vs actual usage and health outcomes, essential for education program success evaluation.
- Risk Segment Profiling to highlight children with excessive screen time plus co-occurring risk factors (poor diet, low sleep, mental health concerns) using multi-factor dashboards.

Doctors and researchers prioritize KPIs that link screen use quantitatively to health and developmental outcomes, supporting decision-making for clinical, educational, and policy interventions. Dashboards that enable slice-and-dice analyses by granular demographics, device type, health metrics, and temporal behavior provide the most actionable insights

Key Insights to Highlight

- Teenagers using TVs/tablets and late teens with laptops/smartphones have highest screen time (often 4.5+ hrs/day).
- Most “Need Attention” and “Moderate Concern” cases cluster in pre-teens/teen groups; urban users dominate “at-risk” segments.
- Health impacts (mainly mental) are more common than physical; awareness does not always reduce excessive use.
- Rural/urban gaps mainly affect device access rather than raw screen time.
- Outliers and subgroup deep risk (Critical Concern, 12+ hrs/day) must be called out in the dashboard.