

Design and Development of a Workload Distribution Analytics Dashboard

Identifying Imbalance and Overwork Risk to Support Work-Life Balance

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Research Context

- Workload is a leading contributor to employee stress, burnout, and poor work-life balance.
- In many organisations, workload distribution is managed informally, relying on a single manager's opinion rather than data derived evidence.
- This allows imbalances and pressure points to develop unnoticed until consequences appear, including but not limited to - reduced productivity, disengagement, absence, or turnover.
- Discussions with a workplace manager confirmed genuine organisational interest in a tool that makes this visible.



Research Problem

Can a lightweight, low-code analytics dashboard effectively visualise workload distribution and overwork risk indicators in a way that is clear, actionable, and usable by managers without specialist technical knowledge?

Evidence of the Existing Problem - CIPD Good Work Index 2025

25%

of employees say their job negatively affected their health.

41%

of organisations cite workload as the leading cause of stress-related absence.

9.4 days

average sickness absence per employee — up from 7.8 (2023) and 5.8 (2022).

Research Aim & Objectives



To design and develop an analytics dashboard that makes workload distribution across staff visible to managers - identifying overwork risk and supporting more equitable task allocation and working towards improving work-life balance.

1

Review academic & industrial literature along with existing data analytics tools to identify current approaches and gaps

2

Define measurable workload indicators: hours worked, task volume (allocated and completed), overtime hours, meeting load

3

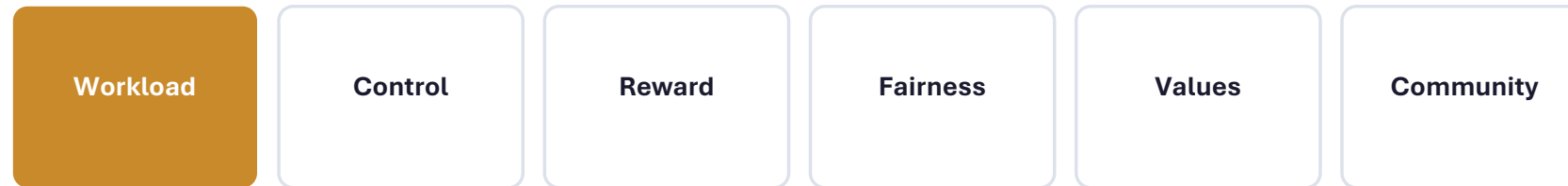
Develop a prototype dashboard using a synthetic representative dataset

4

Evaluate the prototype against defined success criteria for accuracy & usability

Literature Review

Maslach's Areas of Worklife Model — Six Domains of Burnout



Workload is the most directly measurable domain — evidenced via recorded data.



Job Demands–Resources (JD-R) Model

Explains why excessive demands combined with insufficient resources drive burnout — pairing with Maslach's model to explain both what mismatches look like and why they occur.



Cross-Sector Evidence

Nursing research confirms workload as a stable burnout predictor across industries - supporting broad applicability of this dashboard.

Other sectors researched into includes pet care, education, other insurance companies and healthcare.

Literature Review cont.



Microsoft Viva Insights

- Aggregates email, calendar, chat & survey data
- Manager view: aggregated & anonymised only
- Cannot identify specific at-risk individuals



This Project's Dashboard

- Purpose-built for individual-level workload visibility
- Threshold-based flags name specific at-risk staff
- Built on low-code, accessible tools (Power BI)

Research/Development Methodologies



Synthetic Dataset

- Real employer data restricted — insurance-sector sensitivity
- 30 fictional staff, 2 teams, over 10–12 weeks
- Indicators: hours worked, task volume, overtime, meeting load
- Deliberate variation — simulated overloaded & underutilised staff



Tools & Analysis

- Excel → Power Query → Power BI → DAX measures
- Descriptive statistics establish baseline expectations
- Threshold-based flags highlight individuals at risk
- Cross-team comparison reveals structural vs. individual imbalance

Resources/Materials



Budget

Power BI Desktop & Excel free via existing M365 licensing. No specialist hardware required.



Tools

Microsoft Excel, Power BI Desktop, Google Scholar & university library databases, Microsoft Word.



Time

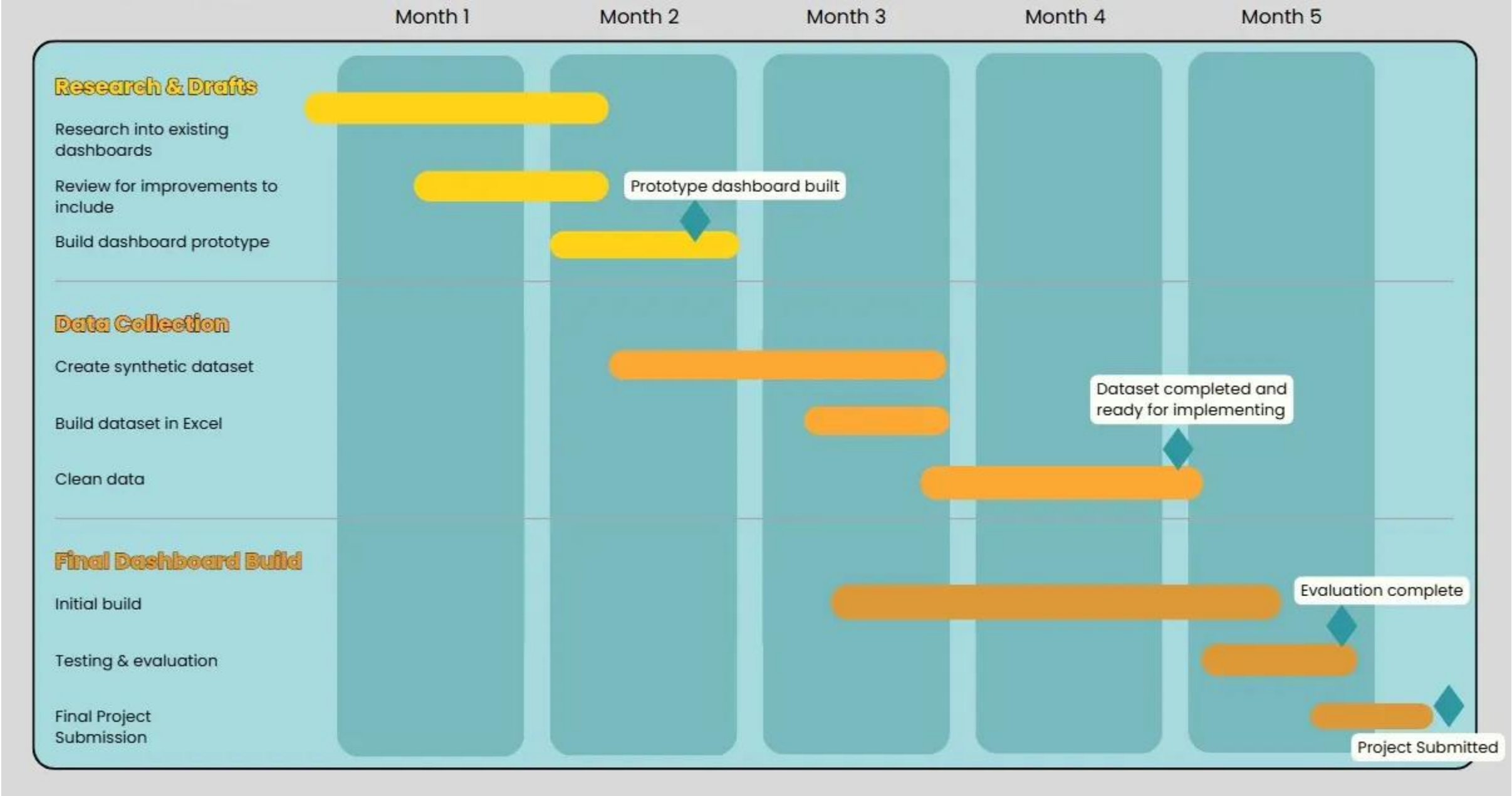
Approx. 5 months, split across Research & Drafts, Data Collection, and Final Dashboard Build phases, alongside work commitments.



Training Needs

Deeper proficiency needed in Power Query & DAX. Free resources: Microsoft Learn and online tutorials, used early in the project.

Project Plan



Impact & Limitations

Impact

- Multi-level value
- Clearer workload visibility
- Allocating support to those who need it
- Action potential pressure points
- Supporting staff proactively

Limitations

- Initial project/draft relies on synthetic data
- Does not account for human-like variation in absences – will need to be accounted for if the dashboard is used
- Deployment would need to be done so sensitively, ensuring employees are supported

References

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