

Agentic AI Demo Report

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```
library(yaml)

metrics_path <- here::here("outputs","results","metrics.yml")
cleaning_path <- here::here("outputs","results","cleaning.yml")
fig_path <- here::here("outputs","figures","rt_hist.png")

stopifnot(file.exists(metrics_path))
stopifnot(file.exists(cleaning_path))
stopifnot(file.exists(fig_path))

metrics <- yaml::read_yaml(metrics_path)
cleaning <- yaml::read_yaml(cleaning_path)

stopifnot(!is.null(metrics$n_obs))
N <- as.integer(metrics$n_obs)
stopifnot(!is.na(N))

# helpers for formatting
fmt3 <- function(x) sprintf("%.3f", x)
fmt6 <- function(x) sprintf("%.6f", x)
```

Overview

This report reads pre-computed outputs from the simple demo pipeline.

- Processed data: outputs/data/processed.csv
- Cleaning summary: outputs/results/cleaning.yml
- Model metrics: outputs/results/metrics.yml

Cleaning Summary

The pipeline kept 276025 of 376101 trials (dropped 100076). Settings: correct-only = TRUE, RT range = 200–2000 ms.

```
data.frame(
  setting = c("correct_only", "rt_min_ms", "rt_max_ms", "total_trials", "kept_trials", "dropped_t
  value = c(
    as.character(cleaning$trimming$correct_only),
    cleaning$trimming$rt_min_ms,
    cleaning$trimming$rt_max_ms,
    cleaning$counts$total_trials,
    cleaning$counts$kept_trials,
    cleaning$counts$dropped_trials
  )
)
```

	setting	value
1	correct_only	TRUE
2	rt_min_ms	200
3	rt_max_ms	2000
4	total_trials	376101
5	kept_trials	276025
6	dropped_trials	100076

Model Metrics

Model: $\text{lm}(\text{mean_log_rt} \sim \text{log_freq} + \text{strokes})$ (N = 3852)

$R^2 = 0.434$.

Coefficients:

```
data.frame(
  term = c("intercept", "log_freq", "strokes"),
  estimate = c(
    fmt6(as.numeric(metrics$coefficients$intercept)),
    fmt6(as.numeric(metrics$coefficients$log_freq)),
    fmt6(as.numeric(metrics$coefficients$strokes))
  )
)
```

	term	estimate
1	intercept	6.452355
2	log_freq	-0.070823
3	strokes	0.013355

RT Histogram (kept trials)

```
knitr::include_graphics(fig_path)
```

