Package 'essentialstools'

June 4, 2026

Title Datasets and Utilities for Essentials of Statistics for the Behavioral Sciences

Version 0.1.7

Description Provides instructional datasets and simple wrapper functions for selected analyses used in 'Essentials of Statistics for the Behavioral Sciences' (Gravetter et al., 2026).
The package is intended to support textbook examples by distributing data in a form that is easy for students and instructors to access within R. Current functionality includes packaged datasets and convenience wrappers for functions from 'ez', 'pwr', and 'WebPower' for analysis of variance and statistical power calculations.

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Encoding UTF-8

RoxygenNote 7.3.3

Depends R (>= 3.5)

LazyData true

Imports ez, WebPower, pwr

NeedsCompilation no

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`birdRT` *Bird Reaction Time Data*

Description

A small instructional dataset containing reaction time data by condition. Hypothetical data were inspired by Hahner, L., & Nieder, A. (2023). Costs and benefits of voluntary attention in crows. Royal Society Open Science, 10(8), 230517. https://doi.org/10.1098/rsos.230517

Usage

```
birdRT
```

Format

A data frame with variables:

Condition Experimental condition

RT Reaction time

Source

Instructional dataset.

`EVData` *Electric Vehicle Population Data*

Description

A dataset of electric vehicle registrations, including Battery Electric Vehicles (BEVs) and Plug-in Hybrid Electric Vehicles (PHEVs).

Usage

```
EVData
```

Format

A data frame with 10 variables:

Vehicle_Number Integer identifier for the vehicle record

County County of registration

City City of registration

State State abbreviation

Postal_Code ZIP code

Model_Year Vehicle model year

Make Vehicle manufacturer

Model Vehicle model

Electric_Vehicle Type of electric vehicle (e.g., BEV, PHEV)

Electric_Range Electric range in miles

Details

The dataset is provided in the same format as it would appear when read directly from a CSV file into R.

Source

Based on Washington State Department of Licensing, Electric Vehicle Population Data, https://data.wa.gov/

Examples

```
data(EVData)
head(EVData)
```

---

music *Music Business Survey Data*

Description

A small dataset containing responses from music-related businesses or workers. The variables describe county, distance, business type, work location, and income source information.

Usage

```
music
```

Format

A data frame with 20 rows and 6 variables:

county County of the respondent or business.

distance Distance from a reference location, measured in miles.

business Type of music-related business or work arrangement.

workloc Primary work location.

localinc Amount of income earned locally.

tourinc Amount of income earned from touring.

Details

Based on data collected by the City of Austin, TX: City of Austin Open Data Portal. (2024). Austin Music Census, 2022. https://data.austintexas.gov/stories/s/Austin-Music-Census/rpy8-prg4

Source

User-provided sample dataset.

Examples

```
data(music)
head(music)
table(music$county)
```

---

run_ez_anova *ezANOVA wrapper for Essentials tools*

Description

Convenience wrapper around ez::ezANOVA() used in the book.

Usage

```
run_ez_anova(...)
```

Arguments

...	Passed to ez::ezANOVA().

Value

The result from ez::ezANOVA().

run_pwr_t_test *pwr.t.test wrapper for Essentials tools*

Description

Convenience wrapper around pwr::pwr.t.test().

Usage

```
run_pwr_t_test(...)
```

Arguments

...	Passed to pwr::pwr.t.test().

Value

The result from pwr::pwr.t.test().

Examples

```
run_pwr_t_test(n = NULL,
               d = 0.5,
               sig.level = 0.05,
               power = 0.8,
               type = "one.sample")
```

run_wp_ttest *webpower t-test wrapper for Essentials tools*

Description

Convenience wrapper around `WebPower::wp.t()` used in the book.

Usage

```
run_wp_ttest(...)
```

Arguments

...	Passed to `WebPower::wp.t()`.

Value

The result from `WebPower::wp.t()`.

Examples

```
run_wp_ttest(n1 = 50,
             d = 0.5,
             alpha = 0.05,
             power = NULL,
             type = "one.sample")
```

`SearchData` *Interactive Search Data*

Description

An instructional dataset for examples and exercises involving visual search or interactive search behavior. The dataset is modeled after research on visual search in a real-world interactive search paradigm.

Usage

```
SearchData
```

Format

A data frame with 20 rows and 4 variables:

Participant Description of Participant.

Easy Description of Easy.

Medium Description of Medium.

Hard Description of Hard.

Source

Dataset adapted for instructional use and modeled after Sauter, M., Stefani, M., and Mack, W. (2020). Towards interactive search: Investigating visual search in a novel real-world paradigm. Brain Sciences, 10(12), 927. doi:10.3390/brainsci10120927

`SleepData` *Sleep Duration Data*

Description

A small instructional dataset containing sleep duration and demographic information. The dataset is modeled after research on subjective temporalities during COVID-19.

Usage

```
SleepData
```

Format

A data frame with 26 rows and 5 variables:

Participant_ID Participant identifier.

Sleep_Duration Sleep duration.

Sex Participant sex.

Age Participant age in years.

Country Participant country.

Source

Dataset adapted for instructional use and modeled after Chaumon and colleagues (2022). The Blursday database as a resource to study subjective temporalities during COVID-19. Nature Human Behaviour, 6(11), 1587-1599. doi:10.1038/s41562022014192

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