Package: Open.Visualization.Academy (via r-universe)

May 22, 2026

Title Content to Support Classes Taught Through the Open Visualization Academy

Version 1.0.0

Description This contains functions and data used by the Open Visualization Academy classes on data processing and visualization. The tutorial included with this package requires the 'gradethis' package which can be installed using ``remotes::install_github('rstudio/gradethis')''.

License AGPL (>= 3)

Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.3

Suggests dplyr, gradethis, gtsummary (>= 2.0.3), htmltools, kableExtra, learnr, quarto, rmarkdown, roxygen2, sortable, testthat (>= 3.0.0), tibble

VignetteBuilder quarto

SystemRequirements quarto

Imports cli, clipr, hms, knitr, rlang (>= 1.1.0)

Config/testthat/edition 3

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LazyData true

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Contents

`analysis` *analysis dataset*

Description

This dataset, which is ready for analysis, was created by setting the variable types, specifying factor levels instead of code numbers, and applying labels to the laryngectomy dataset. It includes demographics, surgery details, and outcomes for 123 individuals who underwent a laryngectomy at an unspecified medical center between 2000 and 2012.

Usage

```
analysis
```

Format

A labelled tibble with 123 rows and 33 variables:

Type: integer

Description: Age in years

age

Type: factor (First/Reference level = `Male`)

Description: Sex assigned at Birth

Levels: `Male, Female`

sex

Type: factor (First/Reference level = `Supra`)

Description: Recurrent Site

Levels: `Supra, Glottic, Transglottic, Unknown`

recur_site

Type: factor (First/Reference level = `XRT`)

Description: Treatment Modality

Levels: `XRT, Chemo+XRT, Unspecified`

trt_mod

Type: ordered (First/Reference level = `Unknown`)

Description: Initial Stage

Levels: `Unknown, T1, T2, T3, T4`

int_stg

Type: ordered (First/Reference level = `Unknown`)

Description: Recurrent staging

Levels: `Unknown, T1, T2, T3, T4`

recur_stg

Type: factor (First/Reference level = `CT`)

Description: Imaging

Levels: `CT, PET, CT+PET, MRI`

preop_img_mod

Type: factor (First/Reference level = `Yes`)

Description: Neck Dissection

Levels: `Yes, No`

nk_dissection

Type: factor (First/Reference level = `Bilateral`)

Description: Laterality

Levels: `Bilateral, Unilateral`

laterality

Type: factor (First/Reference level = `Yes`)

Description: Microvascular Flap

Levels: `Yes, No`

mic_vas_flap

Type: factor (First/Reference level = `Yes`)

Description: Pectoralis major myocutaneous flap

Levels: `Yes, No`

pec_flap

Type: factor (First/Reference level = `Positive`)

Description: Nodal Pathology evaluation of specimen

Levels: `Positive, Negative`

pathology

Type: ordered (First/Reference level = `Unknown`)

Description: Pathologic staging

Levels: `Unknown, T1, T2, T3, T4`

path_stg

Type: factor (First/Reference level = `Yes`)

Description: Complications

Levels: `Yes, No`

complications

Type: factor (First/Reference level = `Yes`)

Description: Salivary fistula or leak

Levels: `Yes, No`

fistula

Type: factor (First/Reference level = `Yes`)

Description: Wound Infection

Levels: `Yes, No`

wound_inf

Type: factor (First/Reference level = `Yes`)

Description: Wound dehiscence

Levels: `Yes, No`

dehiscence

Type: factor (First/Reference level = `Yes`)

Description: Wound Complications

Levels: `Yes, No`

wound_comp

Type: factor (First/Reference level = `Yes`)

Description: Chyle leak

Levels: `Yes, No`

chyle_leak

Type: factor (First/Reference level = `Yes`)

Description: Hematoma

Levels: `Yes, No`

hematoma

Type: factor (First/Reference level = `Yes`)

Description: Revision procedure

Levels: `Yes, No`

revision_proc

Type: factor (First/Reference level = `Yes`)

Description: Flap Failure

Levels: `Yes, No`

flap_fail

Type: factor (First/Reference level = `Yes`)

Description: Perioperative Death

Levels: `Yes, No`

periop_death

Type: factor (First/Reference level = `Yes`)

Description: Medical Complications

Levels: `Yes, No`

med_comp

Type: factor (First/Reference level = `Yes`)

Description: 2 or more complications

Levels: `Yes, No`

comp_2plus

Type: integer

Description: Hospital Stay

hosp_stay_days

Type: factor (First/Reference level = `Yes`)

Description: Death status

Levels: `Yes, No`

death

Type: factor (First/Reference level = `Yes`)

Description: Recurrence status

Levels: `Yes, No`

recur

Type: factor (First/Reference level = `No recurrence`)

Description: Site of Recurrence after salvage laryngectomy

Levels: `No recurrence, Local/regional, Distant`

sor

Type: integer

Description: Days of follow-up

length_fu

Type: integer

Description: Days until death

death_fu

Type: integer

Description: Days until recurrence

recur_fu

Type: integer

Description: Number of complications

complications_count

`laryngectomy` *Predictors and outcomes for people underwent laryngectomy*

Description

A dataset containing demographics and surgery details and outcomes on 123 people who underwent laryngectomy at an unspecified medical center between 2000 and 2012.

Usage

```
laryngectomy
```

Format

A tibble with 123 rows and 32 variables:

age Age in years with 90+ removed

gender sex (M=1, F=2)

recur_site Recurrent Site (Supra=1, Glottic=2, Transglottic=3, Unknown=4)

trt_mod Treatment Modality (XRT=1 Chemo+XRT=2 Unspecified=3)

int_stg Initial Stage (T1=1, T2=2, T3=3, T4=4 Unknown=5)

recur_stg Recurrent staging (T1=1, T2=2, T3=3, T4=4, unknown=5)

preop_Img_mod Imaging (CT=1 PET=2 CT+PET=3 MRI=4)

nk_dissection Neck Dissection (Yes=1, No=2)

Laterality Laterality (Bilateral Neck Dissection=1, Unilateral Neck Dissection=2)

mic_vas_flap Microvascular Flap (Yes=1, No=2)

pec_flap Pectoralis major myocutaneous flap (Yes=1, No=2)

pathology Nodal Pathology evaluation of specimen (Positive=1, Negative=2)

path_stg Pathologic staging (T1=1, T2=2, T3=3, T4=4, unknown=5)

complications Complications (Yes=1, No=2)

fistula Salivary fistula or leak (Yes=1, No=2)

wound_inf Wound Infection (Yes=1, No=2)

dehiscence Wound dehiscence (Yes=1, No=2)

wound_comp Wound Complications (Yes=1, No=2)

chyle_leak Chyle leak (Yes=1, No=2)

hematoma Hematoma (Yes=1, No=2)

revision_proc Revision procedure (Yes=1, No=2)

flap_fail Flap Failure (Yes=1, No=2)

periop_death Perioperative Death (Yes=1, No=2)

med_comp Medical Complications (Yes=1, No=2)

comp_2plus 2 or more complications (Yes=1, No=2)

hosp_stay Hospital Stay (<7 days=1, 7-14 days=2, >14 days)

death Death status (Dead=1 Alive=2)

recur Recurrence status (Recurred=1, No recurrence=2)

sor Site of Recurrence after salvage laryngectomy (Locoregional=1, Distant=3, No recurrence=0)

length_fu Days of follow-up

death_fu Days until death

recur_fu Days until recurrence

`show_structure` *Print a description of the variables in a dataset*

Description

This function prints the name of a dataset and then details on its variables. Run this, then check the output to make sure it does not show any sensitive information. If it does not, paste it into your favorite AI's chat box to help it understand the problem you are solving.

Usage

```
show_structure(data, display_redacted = FALSE, clipboard = TRUE)
```

Arguments

`data`	• The name of an R dataset
`display_redacted`	• Logical. Option to have empty table cells for character and date formats (the default) or to display "< redacted strings|dates >" for charater strings and dates, respectively.
`clipboard`	• Copy results to clipboard (TRUE by default)

Value

A formatted markdown table (via knitr::kable) displaying the structure of the input dataset. The table contains three columns:

`variable`	Column names from the input data
`type`	Data type of each column (e.g., "numeric", "factor", "Date")
`levels`	For factors: comma-separated factor levels; for numeric/integer: value range; for other types: NA

Examples

```
show_structure(mtcars)
```

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