Package 'Open.Visualization.Academy'

January 21, 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

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

Depends R (>= 4.1.0)

LazyData true

NeedsCompilation no

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Repository CRAN

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Contents

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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

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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

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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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