Package: Conversions (via r-universe)

August 27, 2024

Title Collection of functions that convert certain RAW data in the
LCBC database

Version 0.0.0.9000

Description Collection of functions that convert certain RAW data in
the LCBC database.

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Encoding UTF-8

LazyData true

VignetteBuilder knitr

RoxygenNote 7.1.1

Imports dplyr, purrr, tidyr, rio, magrittr, tibble

Suggests knitr, rmarkdown, covr, devtools, testthat (>= 2.1.0)

URL https://github.com/LCBC-UiO/Conversions

BugReports https://github.com/LCBC-UiO/Conversions/issues

Repository https://lcbc-uio.r-universe.dev

RemoteUrl https://github.com/LCBC-UiO/Conversions

RemoteRef HEAD

RemoteSha 12dcb1faa238f359eda641c1f81e58bae9578b48

Contents

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bidsify   *Create BIDS type structure*

Description

Function to return the equivalent BIDS-type reference for a specific set of data.

Usage

```
bidsify(ID, session, site = NULL, type = "file")
```

Arguments

ID	CrossProject_ID
session	Subject_Timepoint
site	Site_Name
type	"file" or "folder"

Value

character in BIDS compliant format

Examples

```
bidsify(1100300, 2)
bidsify(1100300, 2, "ousAvanto")
bidsify(1100300, 2, "ousAvanto", type = "folder")
```

---

bloodpress_map   *Calculate mean arterial pressure*

Description

Calculates the mean arterial pressure based on diastolic and systolic blood pressure. $MAP = (diastolic * 2) + systolic/3$

Usage

```
bloodpress_map(diastolic, systolic)
```

Arguments

diastolic	diastolic blood pressure
systolic	systolic blood pressure

Value

numeric vector of mean arterial pressure

See Also

Other blood pressure functions: [bloodpress_mean](#)()

Examples

```
bloodpress_map(69, 40)
```

---

bloodpress_mean   *Calculate the mean blood pressure*

Description

functions that given a data.frame and columns selection in argument 'cols' using tidy selectors, will calculate the mean

Usage

```
bloodpress_mean(data, cols, na.rm = TRUE)
```

Arguments

data	data frame
cols	columns selected with tidy selectors
na.rm	logical. Should missing values (including NaN) be omitted from the calculations?

Value

numeric vector with mean

See Also

Other blood pressure functions: [bloodpress_map](#)()

Examples

```
dt <- data.frame(
BloodPress_Diastolic_1 = c(80,32,66,NA),
BloodPress_Diastolic_2 = c(58,45,NA,99),
BloodPress_Systolic_1 = c(40,NA,80,120),
BloodPress_Systolic_2 = c(NA, 65,45,100)
)

bloodpress_mean(dt, dplyr::contains("Diastolic"))
bloodpress_mean(dt, dplyr::contains("Systolic"))
```

---

bmi_calc   *Calculate BMI*

Description

function to calculate the BMI with the standard formulae: $BMI = weight/(height/100)^2$

Usage

```
bmi_calc(height, weight, unit = list(height = "cm", weight = "kg"))
```

Arguments

height	height
weight	weight
unit	list of weight and heigt with units for the measures

Value

numeric vector of BMI

See Also

Other bmi functions: [bmi_calc2()](bmi_calc2)

Examples

```
bmi_calc(176, 72)
```

---

bmi_calc2   *Calculate BMI*

Description

function to calculate the BMI with the non-standard formulae: $BMI = weight/(height/100)^{(}2.5)$ which is suggested to provide a measurement that it less dependent on height.

Usage

```
bmi_calc2(height, weight, unit = list(height = "cm", weight = "kg"))
```

Arguments

height	height
weight	weight
unit	list of weight and heigt with units for the measures

Value

numeric vector of BMI

See Also

Other bmi functions: [bmi_calc()](bmi_calc)

Examples

```
bmi_calc2(176, 72)
```

---

iq_raw2score   *Convert raw IQ scores to scaled or T*

Description

Will convert raw IQ scores from subtests into T or scaled values according to a conversion table

Usage

```
iq_raw2score(x, age, iq_table)
```

Arguments

x	raw iq score
age	age in decimals
iq_table	table with converions

Value

numeric vector of converted IQ scores

See Also

Other iq-functions: [iq_table()](iq_table)

Examples

```
## Not run:
t <- iq_table(".iq_table_subtest.tsv", "Vocab", header=TRUE)
iq_raw2score(31, 22, t)
iq_raw2score(x = c(33, 34, NA, 34), age=c(15.5, 20, 20, NA))

## End(Not run)
```

---

iq_t2iq   *Convert T-score to IQ*

Description

This function converts iq T-scores to IQ, using the conversion table provided. The conversion table provided, and the columns in the data selected through the 'cols' argument must correspond regarding the test battery used, and the number of subtests provided for the IQ. If providing 2 WASI subtests scores, the conversion table must be for the conversion of two subtests to fullscale IQ. For WPPSI, you must select columns with verbal and performance IQ scaled to calculate the unscaled verbal and performane IQ. For WPPSI fullscale IQ, apply the `iq_wppsi_fs` function, using the two unscaled verbal and performance IQs.

Usage

```
iq_t2iq(data, cols = NULL, iq_table = NULL)
```

Arguments

`data`	data.frame
`cols`	columns in the data frame with necessary data
`iq_table`	table with conversion, first column being the score to convert from, second score to convert to

Value

numeric vector of IQ scores

Examples

```
## Not run:
##

## End(Not run)
```

---

iq_table   *Import IQ conversion table*

Description

Import a punched version of the IQ conversion table, for scaling raw scores to norm or T-scores

Usage

```
iq_table(table = NULL, subtest = NULL, ...)
```

Arguments

`table`	path or data.frame with conversion data
`subtest`	character vector indicating which subtest
`...`	arguments to `rio::import`

Value

long tibble of the wanted conversion table

See Also

Other iq-functions: [`iq_raw2score`](#)`()`

Examples

```
## Not run:
conversion_table <- iq_table("tests/testthat/iq_table_subtest.tsv", header=TRUE)
iq_table(conversion_table, "vocabulary")

## End(Not run)
```

`iq_wppsi_adjust`	*Adjust WPPSI components to two subtest*

Description

WPPSI requires 3 or more subtests for verbal and performance IQ. There is an adjustment that may be made for it to approximate using two subtests. This function applies this adjustment.

Usage

```
iq_wppsi_adjust(scaled1, scaled2)
```

Arguments

`scaled1`, `scaled2`

scaled score from subtest

Value

scaled verbal/performance iq

Examples

```
iq_wppsi_adjust(c(10, 14), c(14, 16))
```

---

iq_wppsi_fs   *Calculate full scale IQ from WPPSI verbal and performance IQ*

Description

Calculate full scale IQ from WPPSI verbal and performance IQ

Usage

```
iq_wppsi_fs(verbal_iq, performance_iq)
```

Arguments

verbal_iq   unscaled verbal IQ

performance_iq unscaled performance IQ

Value

vector of full scale iq

Examples

```
iq_wppsi_fs(89, 96)
```

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