NaileR :: nail_catdes

behind the scenes



Base dataset

Group	V1	V2	V3
1	12	80	No
2	3	78	Yes

FactoMineR::catdes

drop.negative: ignore negative v-tests?

Group descriptions

isolate.groups: one prompt per group?

Base prompt

```
# Introduction
{introduction}

# Task
{request}

# Data
{sentences from catdes}
```

Generated prompt

Introduction

These data were collected after a survey on students' expectations of agribusiness studies. Participants had to rank how much they agreed with 38 statements about possible benefits from agribusiness studies; then, they were asked personal questions.

They were then split into groups based on their answers.

Task

Please summarize the priorities of each group of students. Then, based on your conclusions, give each group a name.

Data

agree

```
## Group "1":
The following answers appear *more*
often:
    "know how to lead a team":
disagree
    "be able to lead meetings":
disagree
    "reduce ultra-processing": agree
## Group "2":
The following answers appear *more*
often:
    "create my own company": totally
```

Additional parameters:

- model: the LLM model you want to use
- row.w: optional row weights (see FactoMineR's catdes)
- proba: the significance threshold (see FactoMineR's catdes)
- generate: whether to generate the response or not

* "master artificial intelligence":

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tips and tricks



Introduction

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They were then split into groups based on their answers.

Task

agree

Please summarize the priorities of each group of students. Then, based on your conclusions, give each group a name.

```
# Data
## Group "1":
The following answers appear *more*
often:
    "know how to lead a team":
    disagree
    "be able to lead meetings":
    disagree
    "reduce ultra-processing": agree
## Group "2":
The following answers appear *more*
often:
```

* "create my own company": totally

* "master artificial intelligence":

The introduction

- Give context for the data
- Explain that the individuals were split into groups
- Do not hesitate to repeat important words several times

The request

- Use clear words: explain, describe, summarize...
- Use the same words as in the introduction
- When there are multiple instructions, separate them into different sentences or with commas

More tips

- Turn the generate parameter to FALSE to check your prompt and see if it needs editing
- If the variable names are shortened, rename them into long, complete and unambiguous names
- Both isolate.groups and drop.negative, when set to TRUE, can reduce the complexity of prompts and help a LLM understand them better
- Do not hesitate to store the prompt in a variable and replace parts of it (with gsub for example) if necessary



Input

```
library(NaileR)
library(FactoMineR)
data("agri_studies")
set.seed(1)
res_mca_agri = MCA(agri_studies, quali.sup = 39:42,
ncp = 30, level.ventil = 0.05, graph = F)
res_hcpc_agri = HCPC(res_mca_agri, nb.clust = 3,
qraph = F
don_clust_agri = res_hcpc_agri$data.clust
intro = "These data were collected after a survey on
students' expectations of agribusiness studies.
Participants had to rank how much they agreed with
38 statements about possible benefits from
agribusiness studies; then, they were asked personal
questions. They were then split into groups based on
requ = "Please summarize the priorities of each
group of students. Then, based on your conclusions,
give each group a name.
res_agri = nail_catdes(don_clust_agri, num.var = 43,
introduction = intro, request = requ, drop.negative
= T)
cat(res_agri$response)
```

Output

```
Based on the data, here are the priorities of each
group:
**Group 1**
* Priorities: creating healthy products.
transparency to consumers, reducing ultra-
processing, and acquiring skills about the product
and its process.
* Group name: "Sustainability Advocates". This group
is focused on promoting sustainable practices in
agribusiness, prioritizing consumer awareness, and
developing skills related to product development.
**Group 2**
* Priorities: creating one's own company, ensuring
sanitary quality of products, finding new
technologies for innovative products, and rethinking
endangered agricultural jobs.
* Group name: "Entrepreneurial Visionaries". This
group is driven by entrepreneurial spirit, seeking
to create their own companies and innovate in the
agribusiness sector.
**Group 3**
* Priorities: designing superior quality products.
getting a position of responsibility after studies,
minimizing depletion of natural resources, and
promoting endangered agricultural jobs.
* Group name: "Leadership Ambassadors". This group
is focused on leadership development, prioritizing
product quality, and taking responsibility in the
agribusiness sector.
```

Notes:

- drop.negative was set to TRUE to simplify the prompt
- isolate.groups was kept to FALSE (default value) to allow comparisons between groups and help make the final group descriptions more distinct