



HAPPINESS IN THE AGE OF SCREENS

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AGENDA OVERVIEW



OUR DATASET

SQL PRACTICE

SOME ANALYSIS

LEARNINGS



The European Social Survey (ESS) provides high-quality open access data measuring public attitudes, beliefs and behaviour.

OUR DATASET



Example of blocks and variables the Survey includes

Variables

Identifier and weight variables

Media and social trust

nwspol - News about politics and current affairs, watching, reading or listening, in minutes [⊕](#)

[Details](#) [▼](#)

netusoft - Internet use, how often [⊕](#)

[Details](#) [▼](#)

netustm - Internet use, how much time on typical day, in minutes [⊕](#)

[Details](#) [▼](#)

ppltrst - Most people can be trusted or you can't be too careful [⊕](#)

[Details](#) [▼](#)

pplfair - Most people try to take advantage of you, or try to be fair [⊕](#)

[Details](#) [▼](#)

pplhp - Most of the time people helpful or mostly looking out for themselves [⊕](#)

[Details](#) [▼](#)

Politics

Subjective well-being, social exclusion, religion, national and ethnic identity

Health and Inequality

Gender in contemporary Europe

Gender, Year of birth and Household grid



OBJECTIVES AND DATASET CHALLENGES

OBJECTIVE

- Find data related with internet use and its evolution
Connect this data with perceived happiness or
loneliness

CHALLENGES

- Survey data with multiple countries, years and variables
- Dataset not perfect for SQL practice
- Variables with difficult-to-identify names, numerical data for questions with scale responses, and binary data for yes or no answers

STEPS

1

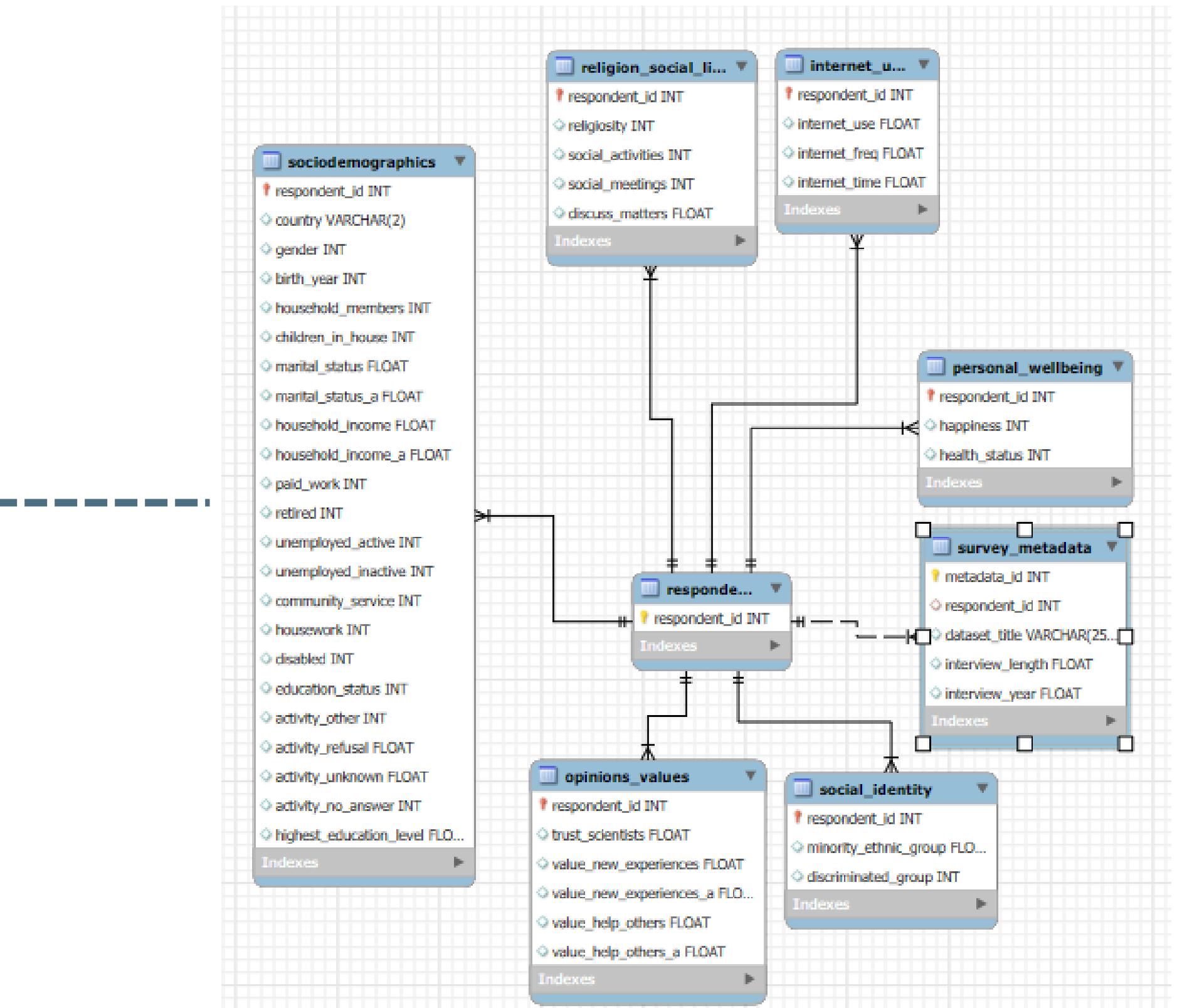
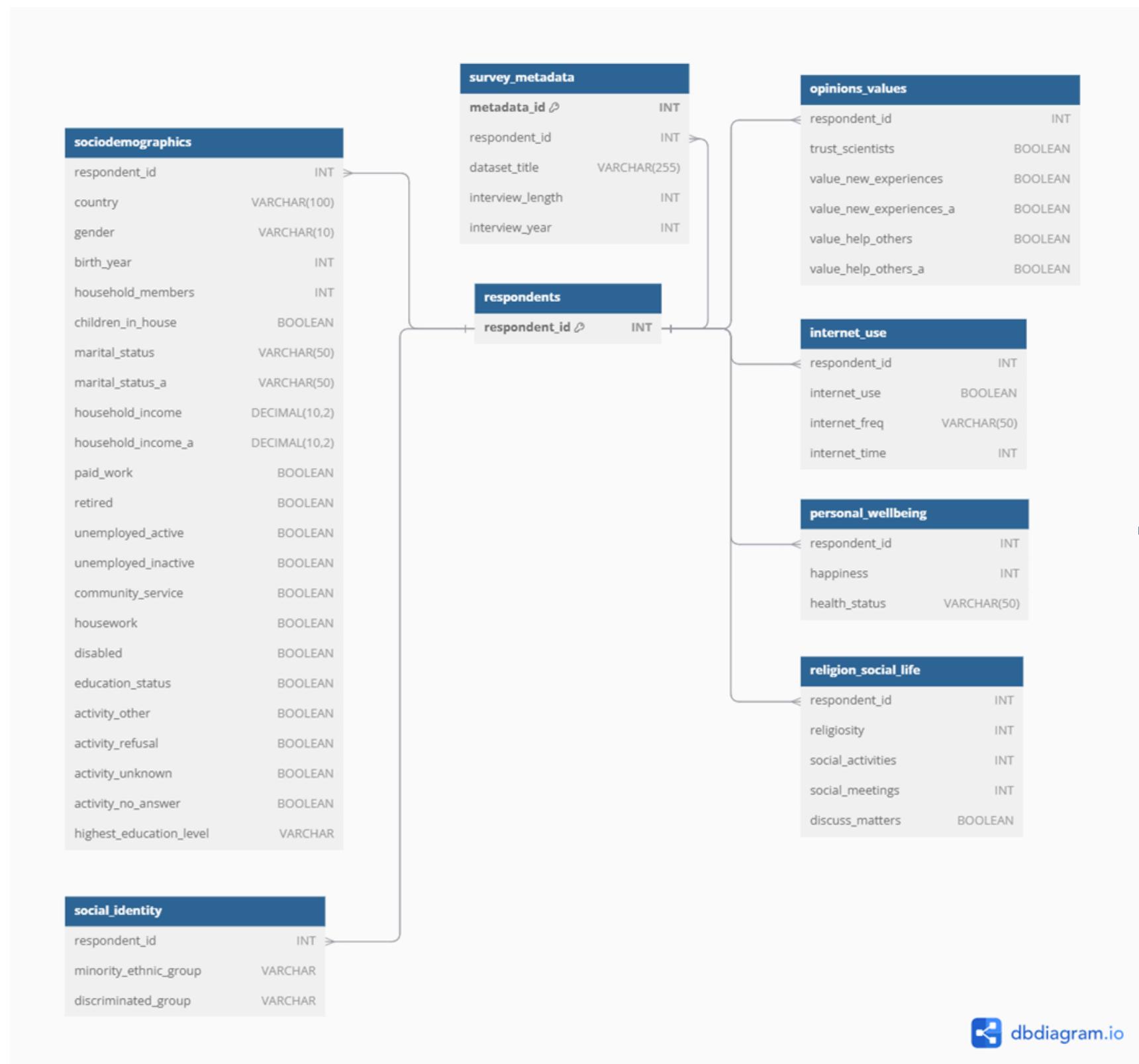
Entity relationship
diagram

+

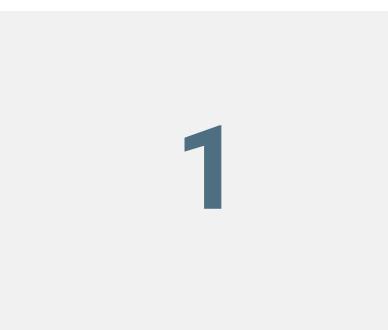
Database creation

+

Tables creation with
Primary and Foreign
Keys



STEPS



Entity relationship
diagram
+
Database creation
+
Tables creation with
Primary and Foreign
Keys



Data loading
+
SQL QUERIES
in Workbench
+
Data export to .csv

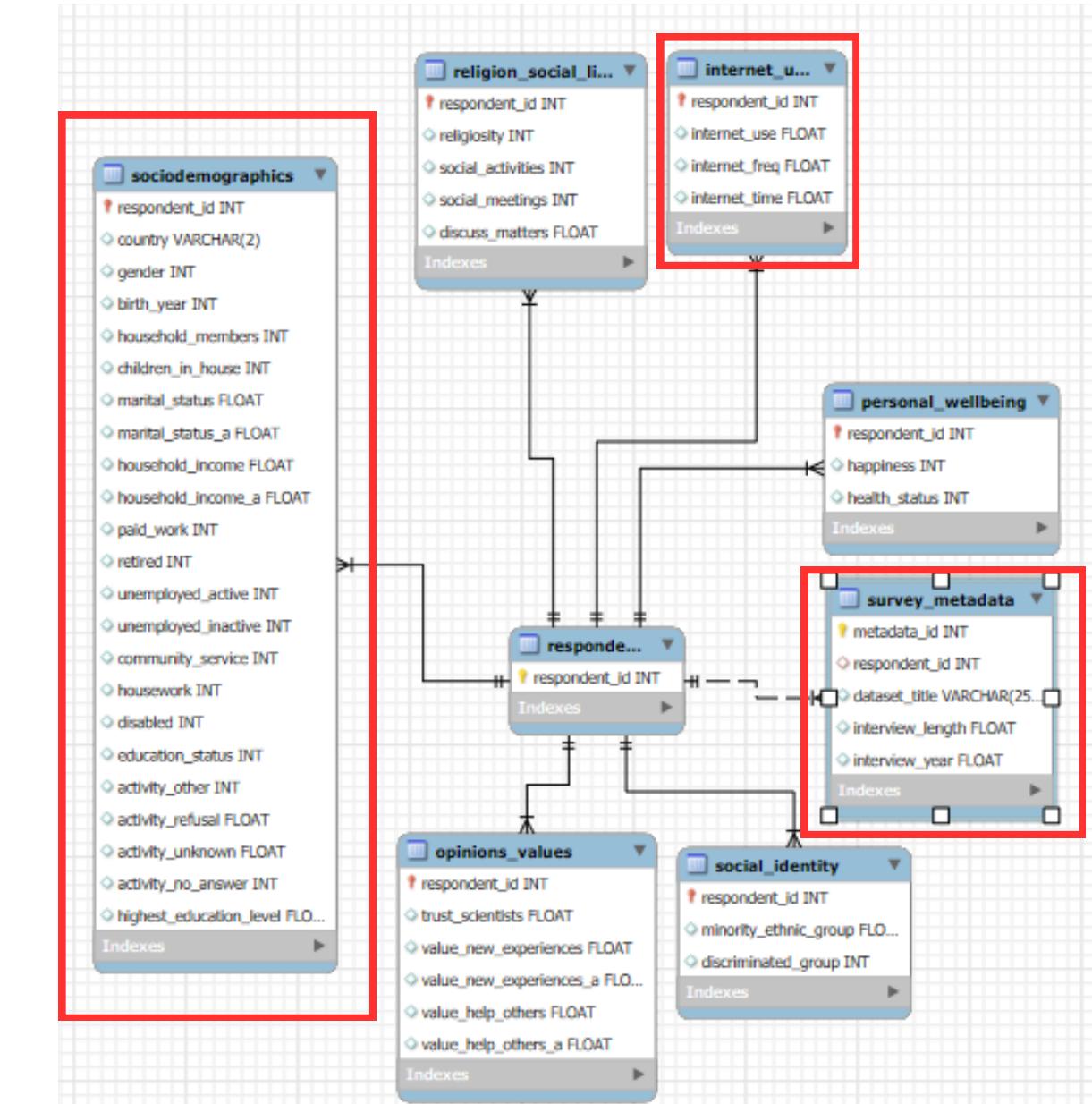
DATA LOADING

```
LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/internet_use.csv'
INTO TABLE internet_use
FIELDS TERMINATED BY ','          -- Comma as the delimiter
IGNORE 1 LINES
(@respondent_id, @internet_use, @internet_freq, @internet_time)
SET respondent_id = @respondent_id,
    internet_use = NULLIF(@internet_use, ''),
    internet_freq = NULLIF(@internet_freq, ''),
    internet_time = NULLIF(@internet_time, '');
```

Internet daily users by country and interview year absolute and % of the total sample

```

148 •   SELECT
149     sd.country,
150     sm.dataset_title,
151     COUNT(iu.internet_freq) AS total_responses, -- Total answers
152     COUNT(CASE WHEN iu.internet_freq = 5 THEN 1 END) AS daily_users, -- Answers = 5 (daily users)
153     ROUND(
154         (COUNT(CASE WHEN iu.internet_freq = 5 THEN 1 END) / COUNT(iu.internet_freq)) * 100,
155         2
156     ) AS percentage_daily_internet_users -- % Answers = 5 (daily users)
157     FROM
158         sociodemographics sd
159     INNER JOIN
160         internet_use iu ON sd.respondent_id = iu.respondent_id
161     INNER JOIN
162         survey_metadata sm ON sd.respondent_id = sm.respondent_id
163     GROUP BY
164         sd.country, sm.dataset_title
165     ORDER BY
166         sd.country, percentage_daily_internet_users DESC;
---
```



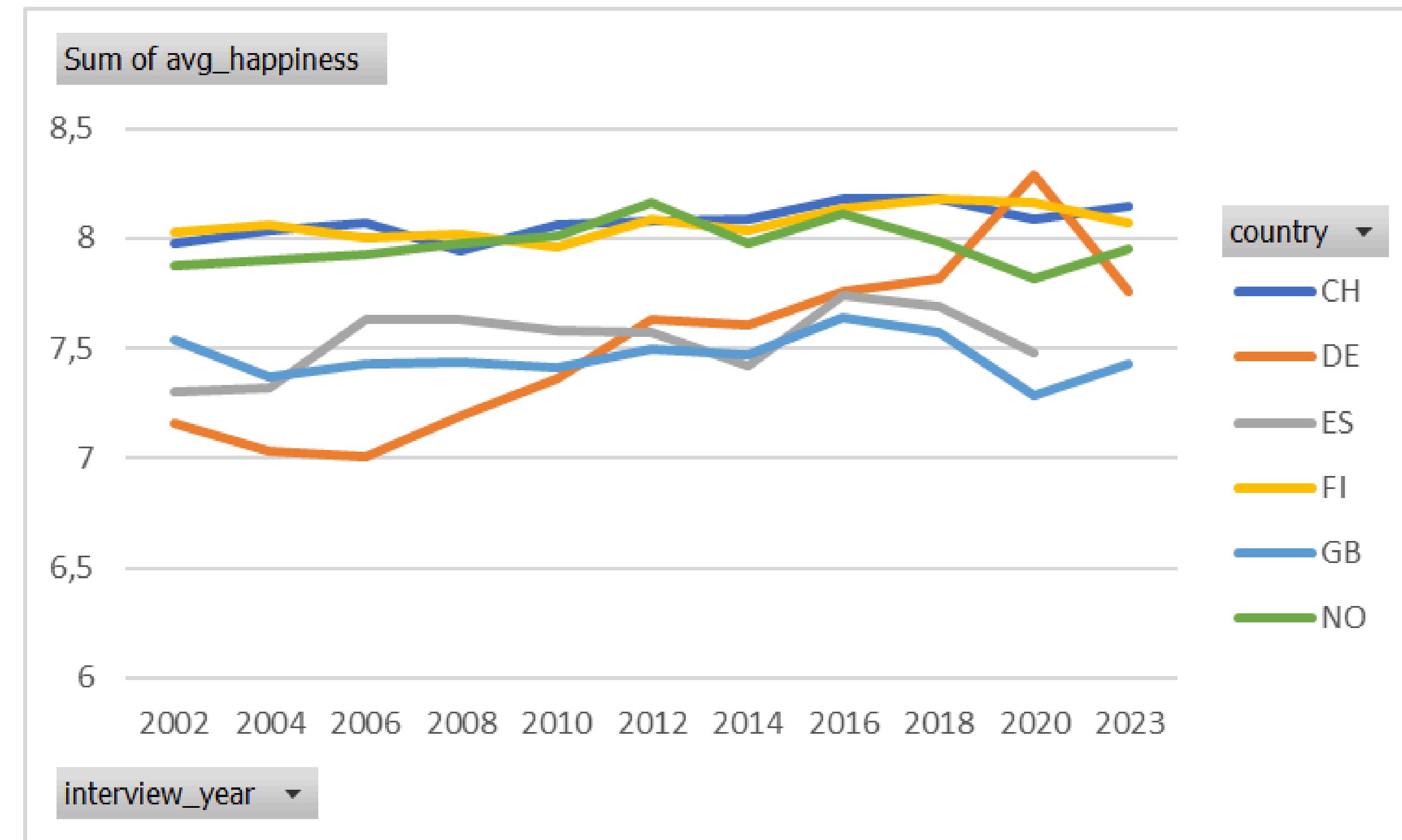
| | country | dataset_title | total_responses | daily_users | percentage_daily_internet_users |
|---|---------|---------------|-----------------|-------------|---------------------------------|
| ▶ | CH | ESS10e03_2 | 1523 | 1216 | 79.84 |
| ▶ | FI | ESS10e03_2 | 1577 | 1302 | 82.56 |
| ▶ | GB | ESS10e03_2 | 1149 | 811 | 70.58 |
| ▶ | NO | ESS10e03_2 | 1411 | 1270 | 90.01 |
| ▶ | DE | ESS10SCe0... | 8725 | 6333 | 72.58 |

Average happiness by country and by interview year (with the interview name variable)

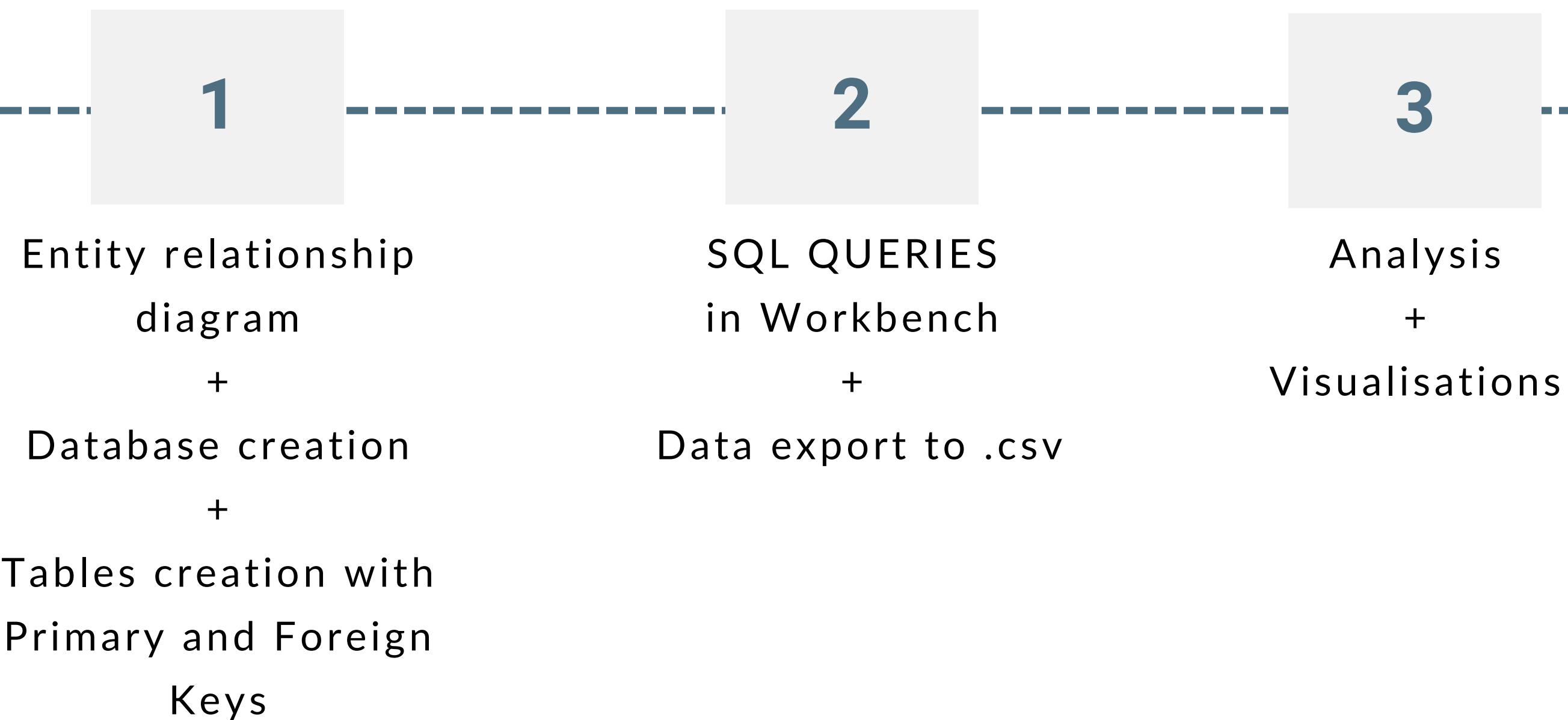
```
112  -- Average hapiness by country and by interview name (as variable for interview year)
113 • SELECT
114     sd.country,
115     sm.dataset_title,
116     ROUND(AVG(pw.happiness), 2) AS avg_happiness
117 FROM
118     sociodemographics sd
119 JOIN
120     personal_wellbeing pw ON sd.respondent_id = pw.respondent_id
121 JOIN
122     survey_metadata sm ON sd.respondent_id = sm.respondent_id
123 WHERE
124     pw.happiness NOT IN (77, 88) -- Excluir respuestas "Refusal" y "Don't know"
125 GROUP BY
126     sd.country, sm.dataset_title -- Agrupar por país y nombre de encuesta
127 ORDER BY
128     sd.country, avg_happiness DESC; -- Ordenar por país y luego por felicidad promedio
---
```

| | country | dataset_title | avg_happiness |
|--|---------|---------------|---------------|
| | CH | ESS3e03_7 | 8.07 |
| | CH | ESS5e03_5 | 8.06 |
| | CH | ESS2e03_6 | 8.04 |
| | CH | ESS1e06_7 | 7.98 |
| | CH | ESS4e04_6 | 7.94 |
| | DE | ESS105Ce0... | 8.29 |
| | DE | ESS9e03_2 | 7.82 |
| | DE | ESS8e02_3 | 7.76 |
| | DE | ESS11e01 | 7.76 |
| | DE | ESS6e02_6 | 7.63 |
| | DE | ESS7e02_3 | 7.61 |
| | DE | ESS5e03_5 | 7.36 |

HAPPINESS AVERAGE EVOLUTION BY COUNTRY

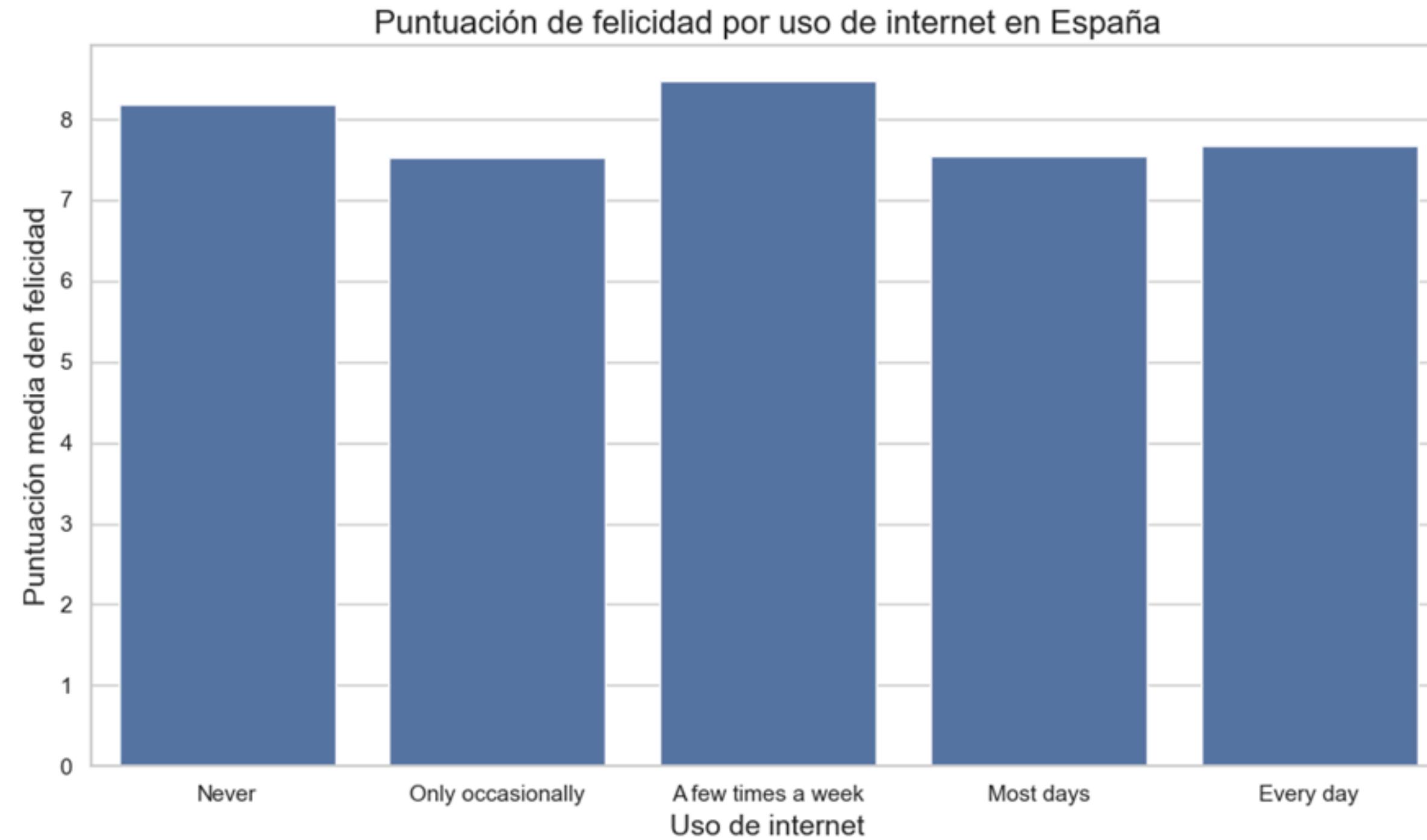


STEPS



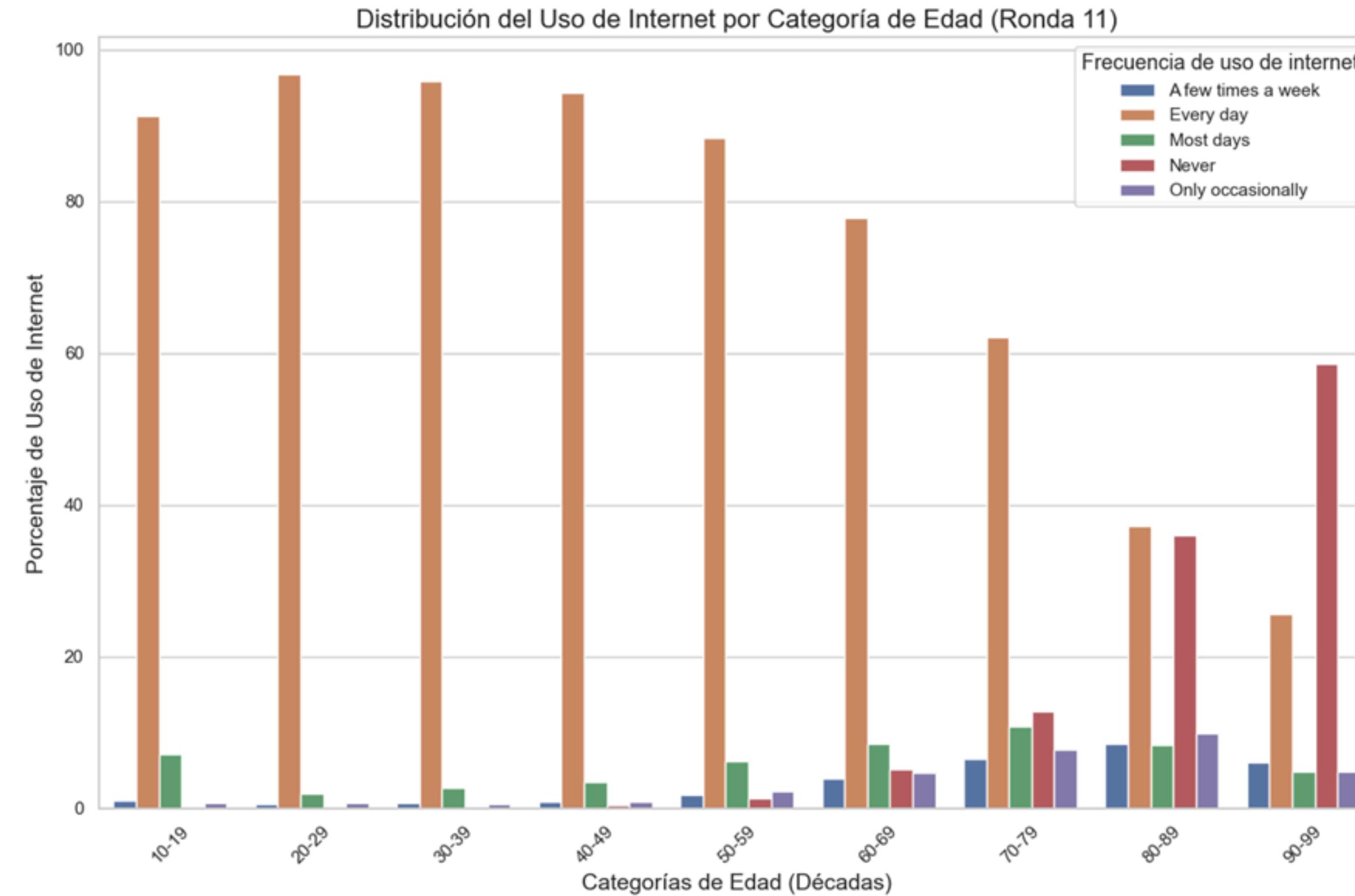
HAPPINESS AND INTERNET USAGE

HAPPINESS AND INTERNET USAGE



INTERNET USAGE BY AGE

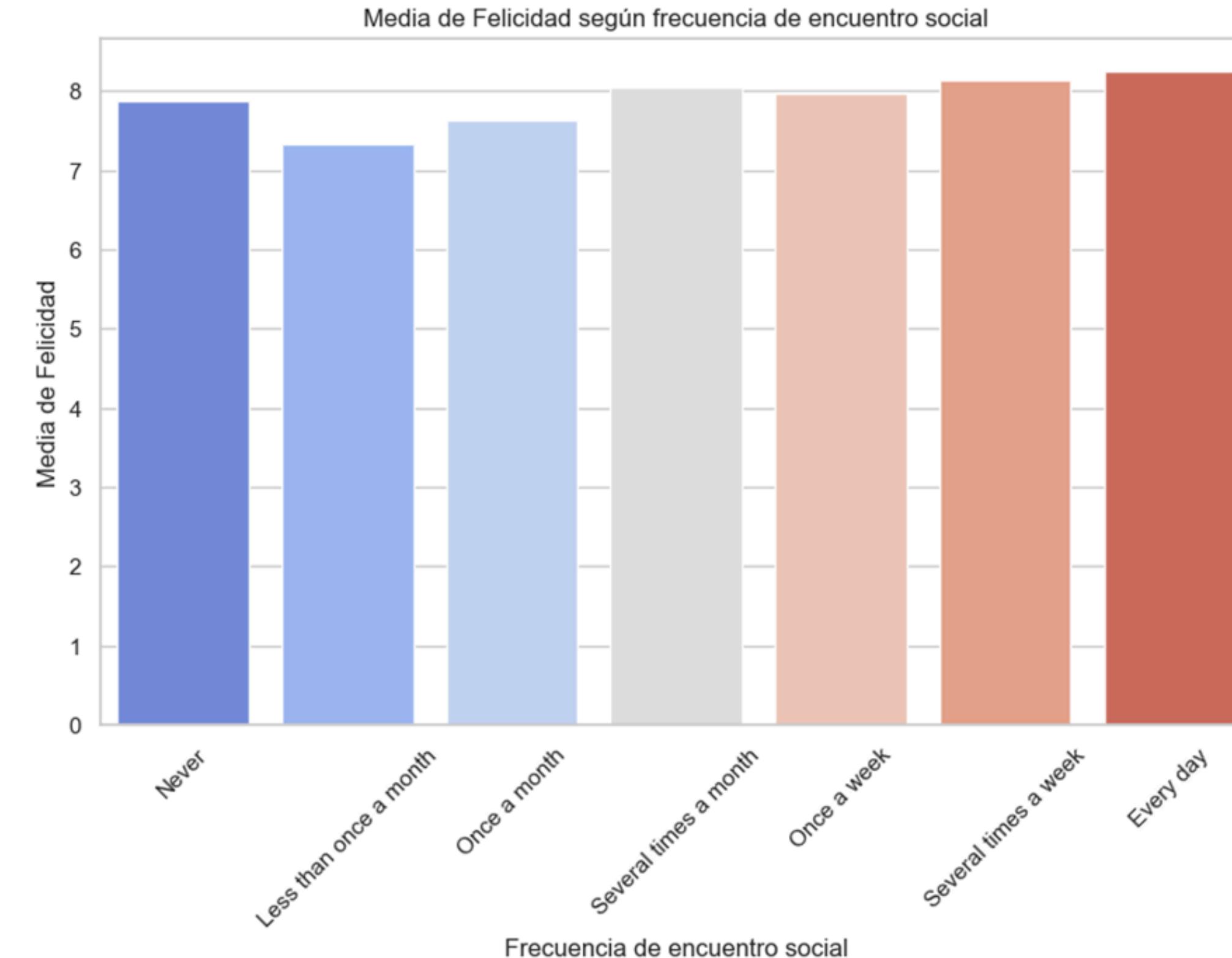
INTERNET USAGE BY AGE



- **FREQUENCY OF MEETING FRIENDS,
RELATIVES, COLLEAGUES**

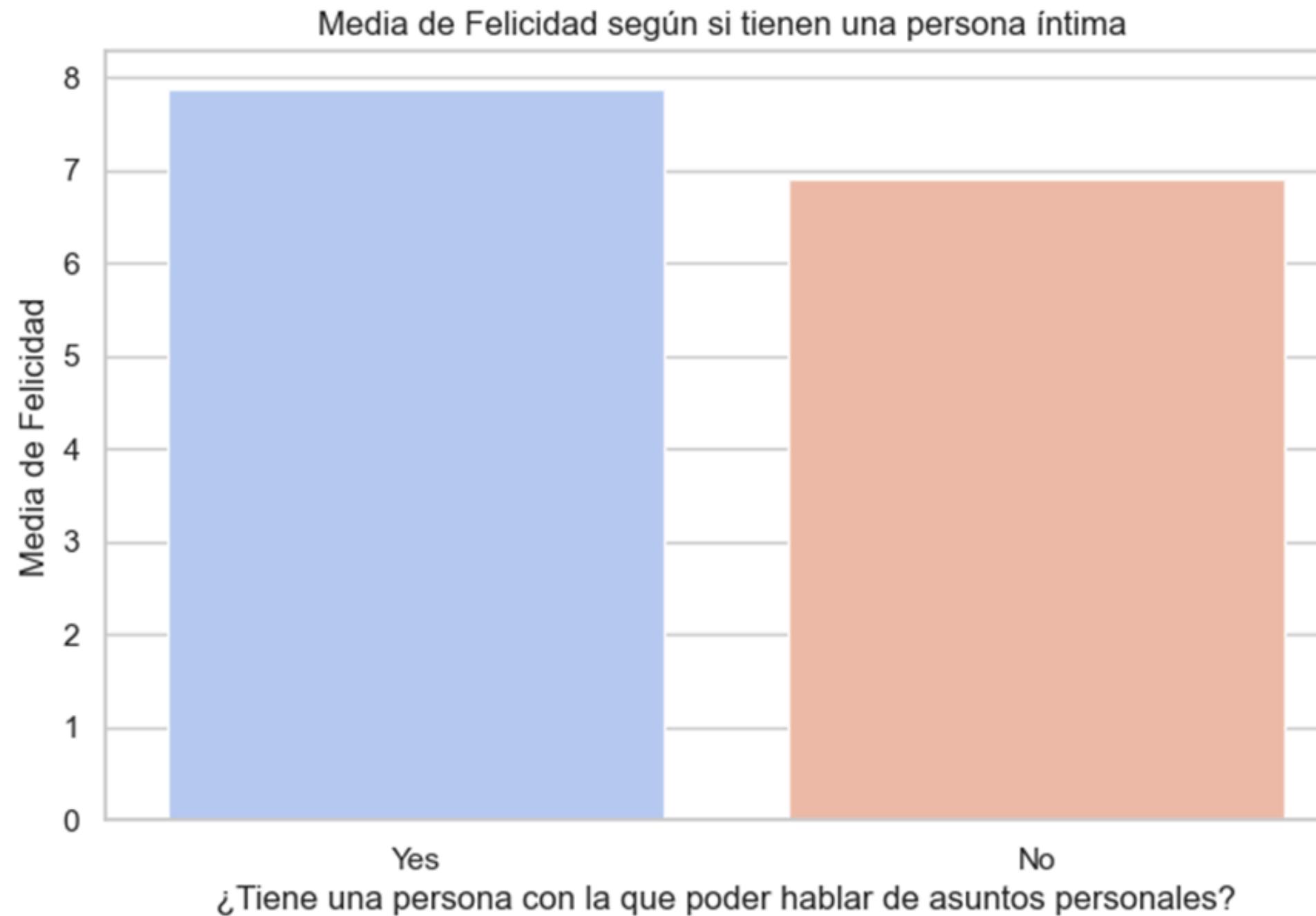


FREQUENCY OF MEETING FRIENDS, RELATIVES, COLLEAGUES



TO HAVE SOMEONE TO TRUST

TO HAVE SOMEONE TO TRUST



LEARNINGS



ABOUT SQL

- We need to understand our data, its origin, and its structure before building queries. If the data is not clean or inconsistencies exist, we may have to spend more time on this part than actually running queries against the database

ABOUT THE ANALYSIS

- A superficial exploration of the data can lead to incorrect conclusions
- Many times, we work with complex, multi-causal data, especially when talking about human behavior
- As data analysts, we must approach this with hypotheses, but being very aware of our biases

