

# A Quick Introduction to the LongGold Data Explorer

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Hannover  
17<sup>th</sup> February 2023



LONG**G**OLD

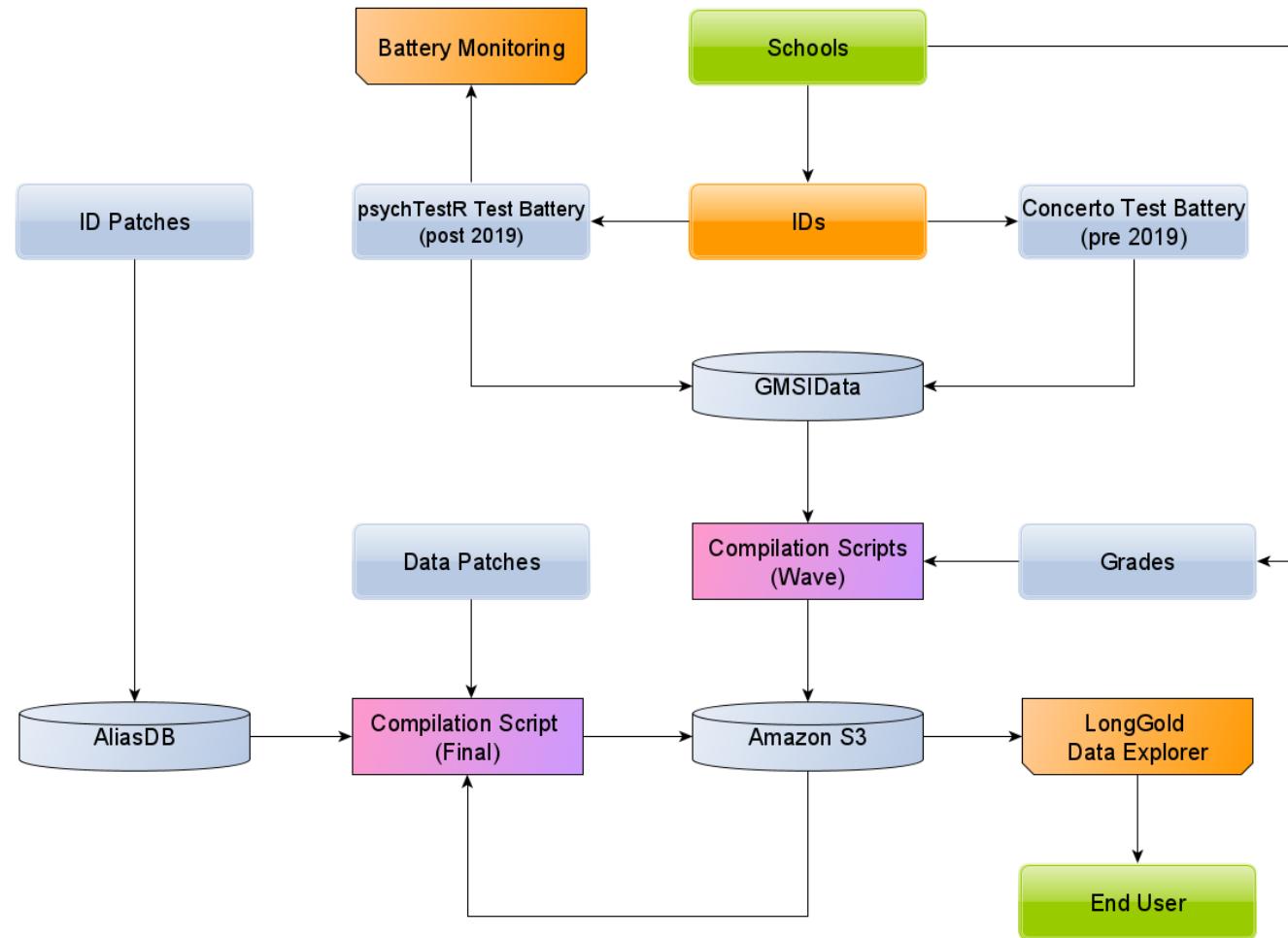
Max-Planck-Institut  
für empirische Ästhetik



# LongGold Data Explorer

- The LongGold Data Explorer is a **Shiny app to visualize and download ALL LongGold-Data**.
- Currently, 12,718 data points by 4,542 participants from seven waves (2015-2022) (8<sup>th</sup> wave is underway).
- On average 2.8 data points per participants (438 participants with 5, 1,152 with one data point).
- Use case:
  - Sanity checks/data cleaning
  - Data exploration (is the legit?)
  - Demonstrations & PR
  - Instant evidence for off-cuff statements

# LongGold Data Flow



# LongGold Data Explorer

- **Sidebar:**
  - Variable selection(s)
  - Grouping (base variables, groups for target variables)
  - Filtering (Country, School, Year, Age)
  - Graphic Parameters (Axis scaling)
- **Tabs:**
  - Univariate
  - Bivariate
  - Timelines
  - Correlations
  - Mediation Analysis
  - Download Data

# LongGold Data Explorer

## Variables

- Academic (0-100, several subgroups, Academic - overall = mean grade)
- GoldMSI: GMS (1-7, several subscales)
- Music Perception (-4, 4)
  - RAT - Score(Rhythm perception)
  - MDI - Score (Melodic discrimination, musical working memory)
  - BAT - Score (Beat perception)
  - MPT - Score (Mistuning perception)
  - PIT - Score (Melodic imagination, ,musical working memory)
  - EDT - Score (Emotion Discrimination in music)
  - MSA – Score (Music scene analysis)
  - HDT – Score (Harmonic discrimination)
- General Cognitive (-4,4)
  - MIQ - Score (IQ, Raven's matrices)
  - JAJ – Score (Visual working memory)

# LongGold Data Explorer

## Variables

- **Psycho-social variables**
  - TPI (Big 5)
  - SDQ (Strength & Difficulties in School)
  - SEM (School Engagement)
  - HOP, GRT (Childrens' Hope & Grit, new, few data points)
  - TOM (theory of musicality)
  - TOI (theory of intelligence)
  - SCA (academic self-concept)
  - SCS (social self-concept)
  - SOS (self-opinion survey (only early UK))
- **Activities**
  - DAC (drama activity)
  - PAC (physical activity, sports)
  - MHE (musical home environment)
  - CCM (concurrent music activities)

# LongGold Data Explorer

## Variables

- Demographics
  - Age, Age Month
  - Age Group
  - Year Group
  - Gender
  - Country
  - Handedness
  - Best Shot
  - School
  - SES (socio-economic status)
- Level & Grouping variables
  - Three equally sized levels for many of the performance variables
  - Highlight a school (for report creation)
  - Test Wave/ Test Year

# Exercises

- Let's answer some urgent question.
- Login into the LDE:

<https://shiny.gold-msi.org/longgold-data-explorer/>

User: workshop

Password: workshop

# Questions

<https://shiny.gold-msi.org/longgold-data-explorer/>

- Who is more successful in school, the Germans or the English?
- Who is more intelligent (MIQ), boys or girls?
- What is the “best” German school in our sample?
- Are students able to reliably estimate (GMS – Emotion) their skills to perceive emotional expression in music (EDT)?
- At what age are the highest gains in school from musical activities (CCM)?
- Which gender benefits more in school from sports?
- Which psycho-social variable is the best predictor for academic success?
- Do school difficulties result in more active engagement with music?
- What is more important for MIQ, socio-economic status or musical training?
- What is more important for academic success, IQ or conscientiousness? Is this constant over age?
- Bonus: which models and correlations in the LDE are statistically not sound?

# Thank you!

Contact me anytime  
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