

A Quick Introduction to the LongGold Data Explorer

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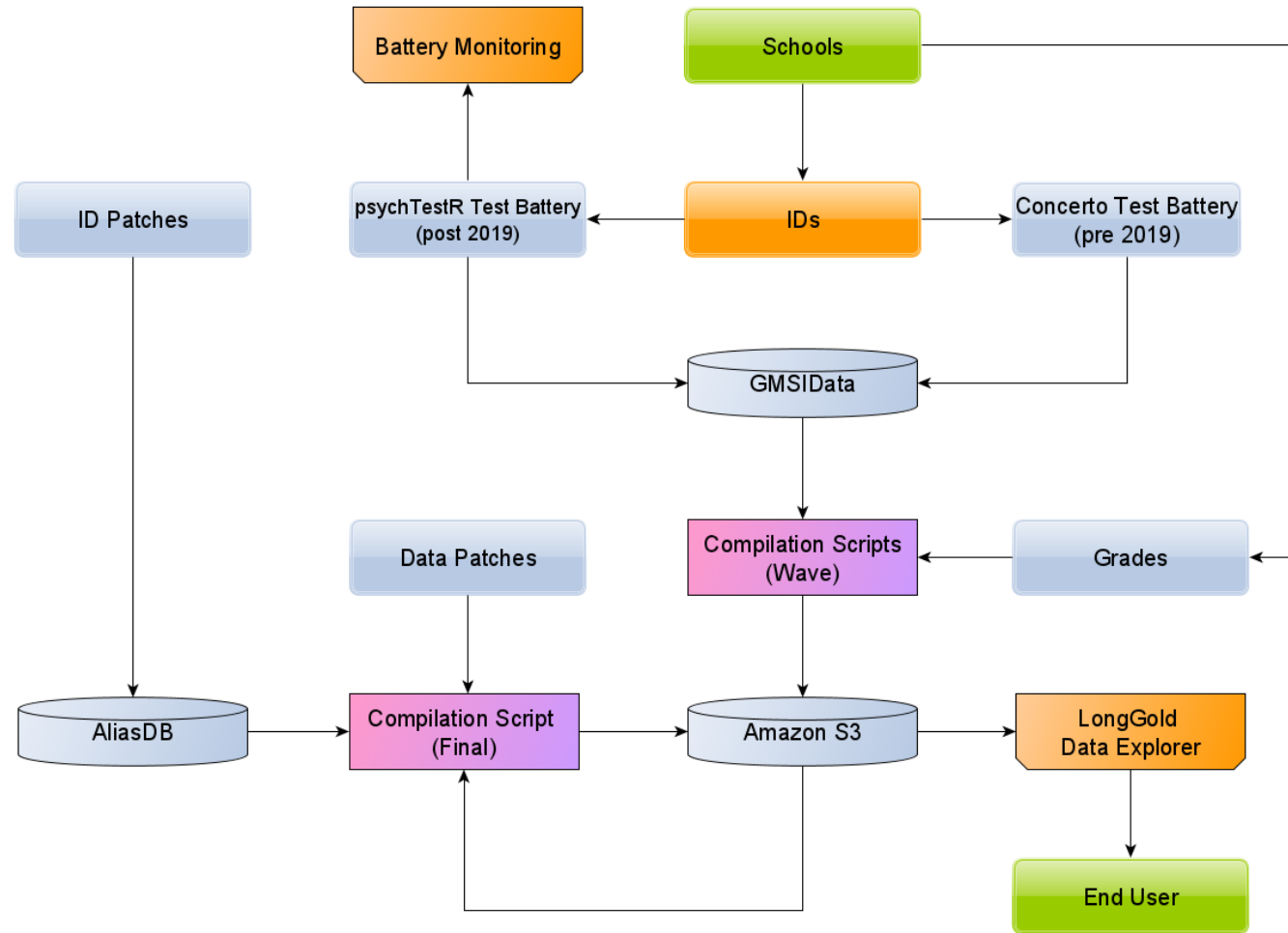
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LongGold Data Explorer

- 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) (8th 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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