## <https://bibendo-docs-dev.readme.io>

## Data structure overview

The Bibendo API is structured around three main concepts:

* **Games**: The games/activities that are available on the platform
* **Runs**: Individual play sessions of a specific game
* **Responses**: Answers and actions of players during a run

## Game data specification

A game in Bibendo represents a specific learning activity or game. Games can have multiple runs, where each run is a unique play session.

**Available functionality:**

* Retrieve all games (own games only)
* Retrieve details of a specific game
* Age category information
* Number of plays statistics

**API Endpoint: List runs for a game**

GET /api/run/{gameid}/list

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Description | Required |
| gameid | int64 | Unieke identifier van het spel | Ja |

**Body Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Description | Example |
| admin | boolean | Administrator rights | true/false |
| email | string | Player email address | [user@example.com](mailto:user@example.com) |
| id | string | User ID | 12345 |
| name | string | Player name | John Doe |
| picture | string | Profile picture URL | <https://example.com/pic.jpg> |
| provider | int32 | Authentication provider | 1, 2, 3 |

## Run data specification

A run represents an individual play session of a game. During a run, multiple players can participate and perform various actions.

**API Endpoint: Retrieve run details**

GET /api/run/{runId}

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Description | Required |
| runId | int64 | Unieke identifier van de run | Ja |

**Use cases:**

* Retrieve detailed information about a specific play session
* Analyze run-specific statistics
* Investigate gameplay flow and duration

**API Endpoint: List players in a run**

GET /api/run/{runId}/users

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Description | Required |
| runId | int64 | Unique identifier of the run | Yes |

**Functionality:**

* Retrieve all participants of a specific run
* Player information including profile data
* User authentication details

## Response data specification

Response data contains all answers, actions, and interactions of players during gameplay. This is the most detailed data for research purposes.

**API Endpoint: Retrieve responses for a run**

GET /api/run/response/runId/{runId}/from/{from}/until/{until}/cursor/{cursor}

**Parameters:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field | Type | Description | Required | Example |
| runId | int64 | Unique identifier of the run | Yes | 12345 |
| from | int64 | Start timestamp for responses | Yes | 1672531200000 |
| until | int64 | End timestamp for responses | Yes | 1672617600000 |
| cursor | string | Cursor for pagination | Yes | "next\_page\_token" |

**Functionality:**

* Retrieve all responses within a specific time period
* Filtering based on time for detailed analysis
* Pagination for large datasets

**API Endpoint: Retrieve responses for an item**

GET /api/run/response/runId/{runId}/item/{itemId}/from/{from}/until/{until}/cursor/{cursor}

**Parameters:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field | Type | Description | Required | Example |
| runId | int64 | Unique identifier of the run | Yes | 12345 |
| itemId | int64 | Unique identifier of the item/question | Yes | 67890 |
| from | int64 | Start timestamp for responses | Yes | 1672531200000 |
| until | int64 | End timestamp for responses | Yes | 1672617600000 |
| cursor | string | Cursor for pagination | Yes | "next\_page\_token" |

**Functionality:**

* Retrieve responses for a specific question or game element
* Detailed analysis of individual game components
* Time-based filtering of answers

**API Endpoint: Retrieve my responses for an item**

GET /api/run/response/runId/{runId}/item/{itemId}/my

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Description | Required |
| runId | int64 | Unique identifier of the run | Yes |
| itemId | int64 | Unique identifier of the item/question | Yes |

**Functionality:**

* Retrieve responses from the authenticated player
* Personal data analysis
* Privacy-aware data retrieval

## Data filtering and parameters

All API endpoints support filtering based on:

**Time period filtering:**

* from and until parameters for time range
* Timestamps in Unix epoch format (milliseconds)
* Flexible period selection for research

**User filtering:**

* Player-specific data retrieval
* Administrator rights for extended access
* Authentication provider support

**Pagination:**

* Cursor-based pagination for large datasets
* Efficient data retrieval in chunks
* Stable results for large queries

## Research applications

With this data, the researchers can:

**Analyze gameplay behavior:**

* Time spent per game/run
* Response patterns and speed
* Incorrect vs. correct answers

**Track learning process:**

* Progress through game content
* Repetitions and return to previous questions
* Learning curve analysis

**Social interactions:**

* Multiplayer behavior
* Collaboration patterns
* Peer-to-peer learning effects

**Technical metrics:**

* Platform performance
* User experience indicators
* Engagement metrics

## Data availability

* **Real-time access**: API endpoints provide real-time data
* **Historical data**: Access to historical runs and responses
* **Export capabilities**: JSON format responses for further processing
* **Rate limiting**: API has rate limits for stability