

Data Standards and Interface Summary of Initial Feedbacks

Sep 2018

Background for Student Data Standard

- ▶ All service providers can use a common set of student data to serve all schools.
- ▶ Schools only need to prepare one set of data for all service providers.
- ▶ Student data format (draft) for consultation with the industry.

1.1 Basic Data (mandatory data)

| Field Name | Data Type | Description | Example |
|---------------------|-------------|---|--------------------------------------|
| DISPLAY_NAME | Varchar(35) | This is the "Name" to be displayed in the system. It can be a code if users do not want to show name. | E.g. 1) David Chan E.g. 2) P4A-10 |
| PROFILE_ID | Varchar(12) | A unique profile ID to identify a student in the system. | TYPNY8NJAOOH |

Notes:

- (a) Part 1.1 – Basic Data is the minimal data to support user authentication.
- (b) PROFILE_ID: Provided by HKEdCity. Third party data users should make sure this field is unique in their system if they have multiple data sources for the student data.

1.2 Optional Data

| Field Name | Data Type | Description | Example |
|--------------------|-------------|--|---|
| HKEDCITY_ID | Varchar(44) | The login_id of the user in HKedCity | hke-stud001 |
| SCHOOL_CODE | Varchar(12) | <p>An unique school identifier from EDB - SCRN</p> <p>Combination of SCRN: School Number [6 digits] + Location ID [4 digits]+ School Level [1 digit] + Session [1 digit]</p> <p>School Level: Kindergarten - 1 Primary - 2 Secondary - 3 Post-Secondary - 4 Others - 9</p> <p>Session: AM - 1 PM - 2 Whole Day - 3 Evening - 4</p> | <p>SCRN: 190381000133</p> <p>School Number: 190381 Location ID: 0001 School Level: 3 (Secondary) Session: 3 (Whole Day)</p> |

1.2 Optional Data

| Field Name | Data Type | Description | Example |
|-----------------------|-------------|--|---------|
| STUDENT_ENNAME | Varchar(35) | English full name | |
| STUDENT_CHNAME | Varchar(18) | Chinese full name | |
| REG_NO | Varchar(9) | Student School Registration Number (Unique in each school) | |
| SCH_YEAR | Integer | School academic year (YYYY) | |
| CLASS_LVL | Varchar(2) | Class Level K1 - Kindergarten 1, K2 - Kindergarten 2, K3 - Kindergarten 3, P1 - Primary 1, P2 - Primary 2, P3 - Primary 3, P4 - Primary 4, P5 - Primary 5, P6 - Primary 6, S1 - Secondary 1, S2 - Secondary 2, S3 - Secondary 3, S4 - Secondary 4, S5 - Secondary 5, S6 - Secondary 6 | |

1.2 Optional Data

| Field Name | Data Type | Description | Example |
|---------------------|-------------|--|--|
| CLASS_NAME | Varchar(4) | Class Name Unique identifier of a class in a school | 4A |
| CLASS_NUMBER | Integer | Student Class Number Unique identifier for a student in a class | 10 |
| GENDER | Varchar | Gender code Male: M Female: F | F |
| MOBILE_NO | Varchar(12) | Mobile phone number | 91234567 |
| EMAIL | Varchar(60) | Email address | chantaiman@hello.edu.hk |

Notes:

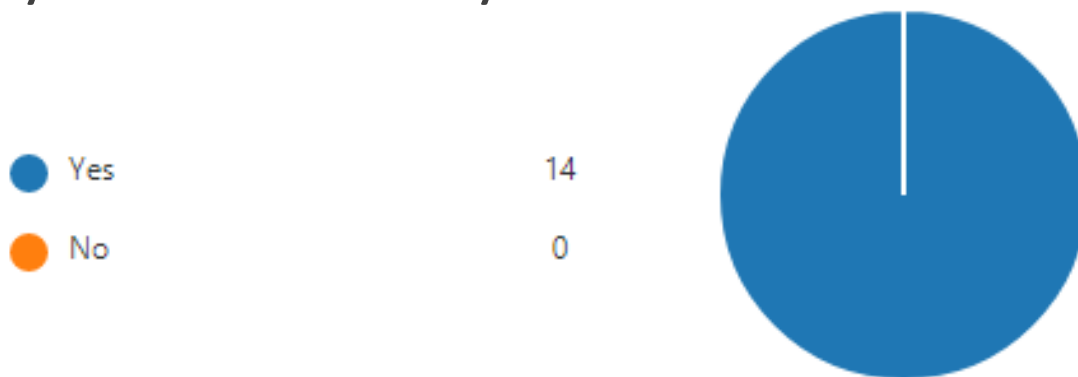
(c) School information (School Number, Location ID, School Level and Session) can be retrieved from:
<https://applications.edb.gov.hk/schoolsearch/schoolinfo.aspx?langno=1&scrn=190381000133>

(d) The availability of Part 1.2 - Optional Data for third parties is subject to the authorization of individual schools.

Feedbacks

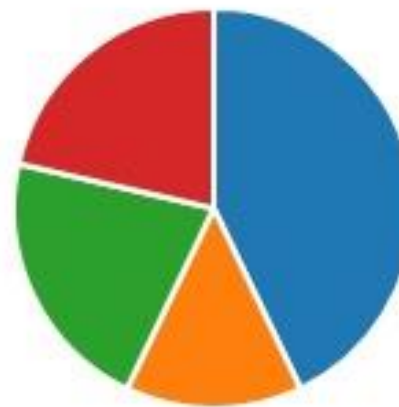
▶ A total of 14 responses have been received.

▶ Q: Do you agree that student data standardisation is necessary for the industry?



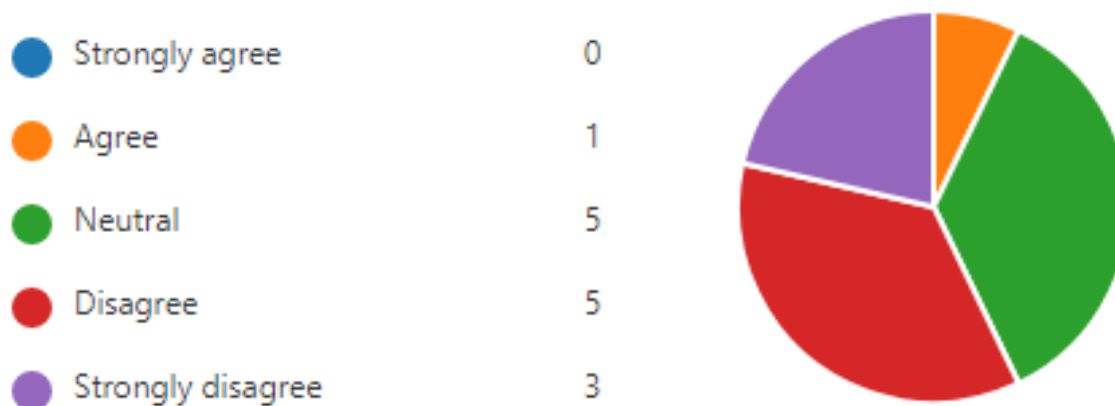
N:14

▶ Q: Do you agree with the suggested data fields and format listed for Basic Data (mandatory data)?



N:14

▶ Q: Do you agree with the suggested data fields and format listed for Basic Data (optional data)?



N:14

► Mandatory and Optional Data

- Some optional field should be made mandatory
- Need teachers' data
- EDB or EdCity to maintain the data
- Profile_ID – ID contributor with their own prefix, not enough length
- Display name and Eng name – 50 char instead of 44
- Need mapping of Chinese name and English name to Display name.
- New fields suggested:

- a. ROLE_NAME Varchar(10)
- b. USER_PROFILE User profile array
 - SCH_YEAR Varchar(4)
 - SCHOOL_CODE Varchar(12)
 - Array of HEAD_TEACHER Array
 - Array of CLASS Array
 - GENDER Varchar(1)
 - Array of SUBJECTS Array
 - Array of TEACHERS Array
 - CLASS_LVL Varchar(2)
 - CLASS_NAME Varchar(4)
 - CLASS_NUMBER Integer

2.1 Annual Update

- ▶ Option 1: Two weeks prior to beginning of school year (i.e. xx Aug 2018) set as “Date A” where schools will provide updated student data for the new school year.
- ▶ Option 2: Schools have their individual date “Date S” set to reflect updated school data.

- ▶ Option 1 – Two weeks prior to new school year
 - Easier for schools to be aware of the update
 - 2 weeks may not be enough for administrative works, suggest to have 2 periods for schools to update the data
 - 3 weeks prior for P1, S1, S4
 - 2 weeks prior for other forms

- ▶ Option 2 – Individual dates
 - More feasible option in real situation

2.2 Ongoing Updates

- ▶ Schools can choose to provide updated student data according to their working practices and be classified as follow:
- Option 1 – Real-time (Schools has real time interface and will update student data at a timely matter.)
 - Option 2 – Daily (Schools will update student data before the close of office on a school working.)
 - Option 3 – Ad Hoc (Schools will update data on need basis and there is no committed timeline.)

▶ Option 1

- This is what the school needs
- Preferred for LMS or school administrative system

▶ Option 2

- Change of data will affect the classroom management function

▶ Other comments:

- The data should be real-time updated if the schools have real-time interface
- As long as the database is updated on HKEdCity (EdConnect), the options are fine

The following options will be available:

▶ 3.1 Single Sign On

- OAuth 2.0
- AppAuth

▶ 3.2 Data Interface

- Option 1: As Excel file which can be retrieved from a central repository
- Option 2: As Restful API calls with JSON / XML for data retrieval

- ▶ Option 1 (Data interface with Excel)
 - Preferred for school administrators and staff

- ▶ Option 2 (Data interface with API)
 - Preferred for publishers and LMS developers
 - Can automate data retrieval through API, which avoid human handling error and reduce processing time and manpower

- ▶ Other comments:
 - Single Sign On should support more than one protocol, e.g. OpenID SAML
 - Strongly support Single Sign on to a Government or EDB portal. HKEdCity and other LMS suppliers should be given equal status
 - Both option 1 and 2 for data interface are necessary

Authorization and Usage of Data

- ▶ Schools to decide on releasing optional data
- ▶ Secure operation to ensure data privacy (schools to authorize what data to be released to whom)
- ▶ Third party Data User should comply with access and use policy:
 - Observe confidentiality of all data
 - Apply necessary security measures to protect the data when being stored in their systems
 - Authorized purpose only
 - Cannot exploit or harvest data for other purpose
 - Remove data upon request or expiry of service.

- Schools may not fully understand the difference between the data they provided and the system needed. To lessen the administrative cost, schools should release all data to adopt e-textbook platform and learning portal
- Parents should have the final say on optional data
- Primary stakeholders are schools and parents, any other providers are secondary at the discretion of parents
- Upon request, the given student data should be removed, and the data should be specified
- Publishers either follow the government guidelines and data privacy policy to handle the data, or have their own privacy policy for schools' acceptance.

▶ School Data

- A common database for school information will be set up based on Open Data.

▶ Teacher Data

- Not included in this round of consultation.
- Teacher can use the same SSO if teachers' login data are provided by schools.
- Publishers need to get teachers data separately if required.

▶ Teacher Data

Learning products were designed with interaction functions between teachers and students, so teacher data, as well as teacher and student relations are crucial

- The cost of content creation and application development which align with industrial standard is quite high, and there are not many platform supporting these industrial standards. Publishers do not see incentive to spend extra effort to conform with these standards
- Publisher has their own membership system, and have effective and reliable ways to collect student data from schools, to implement Single Sign On on other systems would induce a lot of costs
- Single Sign On is good for end-users, and learning data standardization should be further discussed. Publishers should be subsidised to use such technology at early stage for smooth and quick transition
- We should have a concrete plan to introduce the Student Data Standard to schools as the implementation and data migration is costly for publishers, and schools should be advised to follow the standard in recoding relevant student data
- Who to maintain the database and portal?

Proof of Concept

- ▶ SSO (EdConnect) - arrange with HKEdCity
- ▶ LTI and Common Cartridge – EDB/HKEdCity will line up schools to participate in testing.
- ▶ Data Standard – Testing data will be available for testing interface (Excel or API).

| | Original | Revised |
|--|---------------------------------------|---------------------------------------|
| Draft 1 Consultation | 24 August 2018 | 24 August 2018 |
| Industry Feedback on Draft 1 | 7 Sep 2018 | 7 Sep 2018 |
| Discussion with Publishers Associations | 11 Sep 2018 | 11 Sep 2018 |
| Industry Feedback on Draft 2 (if necessary) | 25 Sep 2018 | 25 Oct 2018 |
| Proof of Concept with sample data and interface | October 2018 | Late October 2018 |
| Confirmation of Final Version | Nov 2018 (subject to PoC results.) | Dec 2018 (subject to PoC results.) |