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**SIF Data Model Extension Proposal Template**

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| --- |
| Extension Proposal Version Control |
| Version | Date: | Author/Organization: | Comments |
| v.0.1 | 7/20/2011 | Jill Abbott/SIF Association | Initial Proposal Draft based on design conversations for ResponseToIntervention |
| V0.2 | 7/25/2011 | Jill Abbott/SIF Association | Added object relation diagram |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# **1 Identification**

|  |  |
| --- | --- |
| Proposed Extension Name | New Object |
| Submitted by (Project Team or Individual) | Learner Profile and Content Project Team |
| Date of initial submittal |  |
|  |  |
| What is the base SIF Data Model release? | SIF Implementation Specification 2.6 |
| What is the base SIF Infrastructure release? | n/a |
|  |  |
| What existing SIF object(s) if any will be affected?  | None |
| What is the name of any new object(s)? | ResponseToIntervention |
|  |  |
| DM Extension ID (to be assigned when submitted) |  |

**Status Tracker Phase 1: Documentation and Approval**

*The steps in this initial phase document the proposed extensions to the SIF Data Model to the point where they can be reviewed and approved by the Tech Board as deserving of further effort. Completion of the detailed design and evaluation of the dependencies and migration impacts are left until Phase II.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Template Section** | **Draft Completed****(Owner / Date)** | **Reviewed (R) or Accepted (A)****(Owner / Date)** | **Comments** |
| Rationale and Business Case  | Jill Abbott**Date:** May 30, 2011 | Tech Board (A)**Date:** | Assign to relevant Project Team(s) |
| Use Case(s) | Learner Profile and Content**Date:** May 30, 2011 | Project Team (R)**Date:** |  |
| Proposal approval | Learner Profile and Content**Date:** | Tech Board (A)**Date:** | Placed in Fast Track or Object Pipeline |

# **2. Proposal**

## 2.1 Rationale for New Object

ResponseToIntervention (RTI) is needed in SIF in order for educators to view the RTI information of their students alongside their test scores. They go to the data warehouse to look at this information. In addition, this information is at reported from the LEA to the SEA as Federal and State governments are requiring this information. This is currently part of NCLB and required by law.

RTI is a specific method of intervention that is designed to provide early assistance to students who are having difficulty with specific academic content standards. The focus is upon early intervention, frequent progress measurement and research-based instructional interventions. There are three different levels, during which different and increasing intervention is provided.

While RTI can be assigned to a group of students, individual results for each student need to be recorded and reported. In addition, individual student information may need to be captured. For example, if there is an associated StudentParticipation object for this student, this needs to be included with the RTI.

## 2.2 Business Case

A school has implemented RTI as a research based strategy to improve academic achievement. A group of students are placed in Tier II to improve their reading fluency. This group of students is all assigned the same intervention. The teacher needs to be able to track the overarching information about the intervention and the students that will be assigned to this specific intervention. In addition, the individual student information needs to be captured in this object for reporting as well as for monitoring of the students progress.

# **3. Use Cases**

**Use Case Title:**

|  |  |
| --- | --- |
| **Type (Mandatory or Optional)** | Mandatory |
| **SIF Version** | SIF Implementation Specification (United States of America) 2.6 |
| **Summary Description** | A student has been assigned to an intervention for Response to Intervention. The results from each measurement are recorded. |
| **Actors:** **Requesting Agent****Responding Agent**  | Student Information System (SIS)Special Program System |
| **Preconditions** | A student has already been placed into an intervention. The baseline data has been collected and the first measurement is to be taken. |
| **Main Sequence of Events / Action Steps** | 1. The teacher performs the DIBELS assessment with the student.
2. The data from the DIBELS assessment is downloaded from the handheld to the computer.
3. The data from the DIBELS assessment is entered into the Special Program System.
4. The Special Program Systems publishes that new data is available.
5. The SIS accepts the data into the application.
 |
| **Alternative Sequence of Events / Action Steps** | 1. The teacher performs the DIBELS assessment with the student.
2. The data from the DIBELS assessment is downloaded from the handheld to the computer.
3. The data from the DIBELS assessment is entered into the Special Program System.
4. The SIS requests any new ResponseToInterventionResults objects.
5. The Special Programs System responds and sends the new objects.
 |
| **Post Conditions** | The results from the measurement of the RTI have been entered into the Special Program System and the SIS. |
| **SIF Mandatory Objects** | StudentPersonalResponseToIntervention |
| **SIF Optional Objects** | StudentPlacement |
| **Open Issues** |  |

**Status Tracker Phase 2: Execution of Proposed Changes**

|  |  |  |  |
| --- | --- | --- | --- |
| **Template Section** | **Draft Completed****(Owner / Date)** | **Reviewed (R) or Accepted (A)****(Owner / Date)** | **Comments** |
| Dependencies  | Jill Abbott**Date:** | Internal Project Team review |  |
| Object Definition Table | Learner Profile and Content**Date:** | Tech Board (R)**Date:** |  |
| Migration Plan | Learner Profile and Content**Date:** | Tech Board (A)**Date:** | TB Approval is part of SIF Release cycle |
| Sample XML | Learner Profile and Content**Date:** | Optional | Generally provided as part of published specification |

# **4. Impact Assessment**

## 4.1 External Object Dependencies and Relation Map



## 4.2 Infrastructure / International Dependencies and Relation Map

There are no infrastructure or international dependencies.

# **5 Detailed Design**

*Place the detailed element by element, attribute by attribute breakdown of the Data Model Extension here. This work is normally done by members of the assigned Project Team.*

*The possible values of the “Char” column include*

*One of the following characteristics:*

* ***M – Mandatory****. Item must appear in every Add Event and Response message for the object*
* ***Q – ReQuired****. Item must either appear in an Add Event or eventually be included in a Change Event.*
* ***S – Supported****. Item may or may not appear in any message relating to the object. However if its value is supplied / available, it must be included by the sender in Event and Response messages.*
* ***C******– Conditional.*** *Item is required if the included conditions are satisfied*
* ***O – Optional****. Item may or may not appear in any message relating to the object. It need not be supported by the sender*

Plus one or more of the following characteristics if applicable:

* ***I –******Immutable.*** *Item value cannot be changed once supplied.*
* ***U –******Unique.*** *Item value is unique from all other objects containing that item (ex: RefId)*
* ***N –******Non-Queryable****. Item may not be used in a Request message. This would be true for elements which might be calculated by the object provider (ex: aggregates)*

Plus the following characteristic if applicable:

* ***R ­– Repeatable.*** *Item may appear more than one time.*

*The “type” of each item is either an XML type (ex: integer) or a named SIF Global Type.*

 *XML Facets can help to further define the value of an item. These can include length, range, and per-type value restrictions. They should be specified if known.*

*Fill out a separate copy of the following table for each affected new or existing SIF object.*

**Object Name: \_ResponseToInterventionResults\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |
| --- | --- | --- | --- |
| **Object/Element/Attribute** | **Char** | **Object Description** | **Type** |
| ResponseToInterventionResults |  | Response to Intervention (RTI) is a multi-tier approach to the early identification and assistance of students who are having learning and/or behavioral needs. This object records the individual learner information for an assigned ResponseToIntervention. |  |
| @RefId | M |  | RefIdType |
| @StudentPersonalRefId | MR | The student being administered the intervention. | IdRefType |
| @StudentPlacementRefId | O | Reference to the information that describes a specific instructional, related or transitional service that has been prescribed or recommended in the program plan developed for a student who has been placed in an individualized special program. | IdRefType |
| @ResponseToIntervention | M | Reference to the ResponseToIntervention that has been assigned for this individual learner. |  |
| RTILocalId | O | A local ID that may be used to identify this intervention for the student. |  |
| Intervention | MR | Naming of the intervention. | xs:normalizedString |
| PerformanceIndicators | O |  |  |
| PerformanceIndicators/PerformanceIndicator | MR | The specific measurement goal at the end of the intervention that each student should reach. | xs:normalizedString |
| Measurements | O |  |  |
| Measurements/MeasurementTool | MR | The specific tool that will be used to gather data about how the student is improving. These would be in reference to the learning objectives. | xs:normalizedString |
| Measurements/FrequencyofMeasure | MR |  | Values:S001 WeeklyS002 Bi-weeklyS003 Semi-monthlyS004 MonthlyS005 QuarterlyS006 Semi-annuallyS007 AnnuallyS008 DailyS999 Other |
| Baselines | O |  |  |
| Baselines/Baseline | MR | The pre-assessment data to evaluate the student on the learning objective. | xs:normalizedString |
| Targets | O |  |  |
| Targets/Target | MR | The specific end aim that is desired to achieve for the student. | xs:normalizedString |
| Results | O |  |  |
| Results/Result | MR | This represents the results based on each measurement period. |  |
| SIF\_Metadata |  |  |  |
| SIFExtendedElements |  |  |  |

# **6 Migration Plan**

This is a new object and no migration plan is necessary.

# **7 Issues**

There are no known issues.

# **8 XML Example(s)**

<ResponseToInterventionResults RefId="CC0937A90CE15348EF81A8AA3929956"

 StudentPersonalRefId="93765CDE826A83F7C20C765BB2869C1"

 StudentPlacementRefId=” C923F103DD9827EF20937A13902CDD301

ResponseToInterventionRefId=”CDE093872A102BB33C983210FDEE3890>

<RTILocalId>837D3</RTILocalId>

 <Intervention>Read Naturally</Intervention>

<PerformanceIndicators>

 <PerformanceIndicator>ORF 120</PerformanceIndicator>

</PerformanceIndicators>

<Measurements>

 <MeasurementTool>DIBELS</MeasurementTool>

 <FrequencyofMeasure>S005</FrequencyofMeasure>

</Measurements>

<Baselines>

 <Baseline>ORF 40</Baseline>

</Baselines>

<Targets>

 <Target>ORF 70</Target>

 <Target>ORF 95</Target>

 <Target>ORF 110</Target>

</Targets>

 <Results>

 <Result>ORF 68</Result>

 <Result>ORF 99</Result>

 <Result>ORF 118</Result>

 </Results>

</ResponseToInterventionResults>