IMS QTI XSD Changes

The IMS QTI Working Group has released XML Schema Definition (XSD) files to accompany QTI Specification v1.2. These changes are documented below.

The group created three schema documents and updated each example instance document to use the corresponding schema (XSD) file rather than the DTD.

Each instance document was tested with the following four parsers:

- MSXML 4.0
- Xerces-j 1.4.4
- Turbo XML 2.2
- XML Spy 4.0

Testing with Xerces is still problematic. Everything still validates, even the examples with deliberate errors. So none of the three schemas have reliable testing against Xerces.

All instances of e-dtype in the examples and in the schemas were removed.

As an abbreviation for http://www.w3.org/XML/1998/namespace "x:" was used rather than "xml:". There are still concerns with this, but just using "xml:" was unsuccessful.

The group decided to use processContents="lax" on "any" elements and attributes for extension elements. This is a departure from the DTDs which used the default of "strict". The reason for using "lax" was to avoid creating additional schema files for each example that used extension elements. This may need to be revisited.

Some errors are still generated in the schema files using XML Authority. The errors are against the W3C's xml.xsd. Using the ims_xml.xsd has not yet been attempted, but that may not be the best solution.

The schema with elementFormDefault="qualified" was left as is. This is different from the Content Packaging and Meta-Data schemas which specify elementFormDefault="unqualified". The rational for doing so is explained in the following best practice from the XML Schemas: Best Practice Homepage (http://www.xfront.com/BestPracticesHomepage.html):

http://www.xfront.com/HideVersusExpose.pdf