



# Technology Enhanced Learning: Conformance - European Requirements & Testing

**Title:** D4 – USING IMS VDEX for EDS AP - EIFEL  
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**Summary:** This document describes how to use external vocabulary IMS VEDX with LIP for internationalisation of EDS application profile. It covers a description of the common IMS LIP elements, a proposal for a VDEX vocabulary for EDS, and some example of XML binding.

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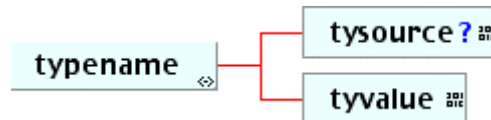
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# 1. Common structure in LIP

## 1.1. Typename

**Description:** The typename data structure is used to extend the basic vocabularies defined for a particular data structure. This extension mechanism is based upon referencing the new vocabulary set followed by identifying the term selected from that vocabulary. It is possible to simply state the selected phrase without defining reference set however this means that it will not be possible for the receiving system to validate the selection against a known reference vocabulary.



**Figure 1:** <typename> elements

- **Attributes:** None.

### Elements:

- tysource
- tyvalue

### Example:

```
<typename>
  <tysource sourcetype="List">Monday, Tuesday, Wednesday, Thursday, Friday</tysource>
  <tyvalue>Tuesday</tyvalue>
</typename>
```

### <tysource>

**Description:** The tysource element is used to define the set of entries that constitute the vocabulary. This extension can be realised through the actual phrases themselves, a URI to a file containing the vocabulary or to an external identifier of that vocabulary.

### Attributes:

- **sourcetype (required selection from the enumerated list of: list, imsdefault, proprietary, standard).** Identifies the type of vocabulary with the 'imsdefault' entry referring to the default IMS vocabulary that corresponds to the context. The 'list' entry requires the actual vocabulary to be supplied in the body of the element. The 'standard' and 'proprietary' entries would have the corresponding URL or logical identifier given as the body of the element<sup>1</sup>.  
Data-type = Enumerated list.

**Elements:** None.

### <tyvalue>

**Description:** The tyvalue element is used to select the entry in the vocabulary identified using the <tysource> element.

### Attributes:

- **xml:lang (optional - default = 'en').** Identifies the language that is to be used within the instance. The default is set as English but the potential range of languages is defined as per the XML W3C specification.  
Data-type = string.

**Elements:** None.

### Our needs :

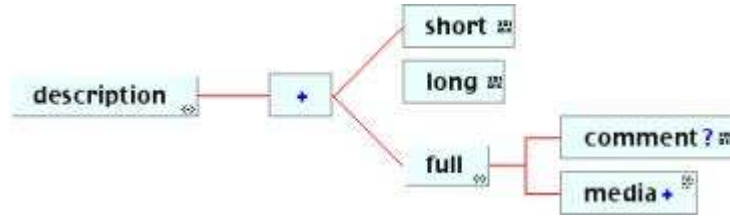
Within LIP, the typename element is used to specify the taxonomy by "tysource" and "tyvalue" the specific element chose in LIP.

---

<sup>1</sup> We should use this possibility for our external vocabulary.

## 1.2. Description

**Description:** Many of the data objects require the storage of the appropriate content, including brief descriptions of the nature of the material being stored or referenced. Three classification of description are supported and it is an implementation issue for how each of these classes are used and processed.



**Figure 2:** <description> elements

**Attributes:** None.

**Elements:**

- short
- long
- full

**Example:**

```
<description>
  <short>A very short statement.</short>
  <long>This is a long text statement in which the number of characters used
    exceeds 255. The intention is for this type of element to be used to
    store the bulk of the text-based messages. Paragraphs that are under
    255 characters can also be stored herein. This is a long text
    statement in which the number of characters used exceeds 255. The
    intention is for this type of element to be used to store the bulk of
    the text-based messages.
</long>
  <full>
    <media mediamode="text" mimetype="image/gif" encoding="uri">student1/essay1.doc
    </media>
    <media mediamode="image" mimetype="image/gif" encoding="uri">student1/photo1.gif
    </media>
  </full>
</description>
```

### <short>

**Description:** This element contains the short textual material that forms the description. 'Short text' is text that is 1-255 characters. The entry format is a string.

**Multiplicity:** Occurs zero or more times<sup>2</sup> within the <description> element.

**Attributes:**

- **xml:lang (optional - default = 'en').** Identifies the language that is to be used within the instance. The default is set as English but the potential range of languages is defined as per the XML W3C specification. Data-type = string.

### <long>

**Description:** This element contains the long textual material that forms the description. 'Long text' is text that exceeds 255 characters. The entry format is a string.

**Multiplicity:** Occurs zero or more times within the <description> element.

**Attributes:**

- **xml:lang (optional - default = 'en').** Identifies the language that is to be used within the instance. The default is set as English but the potential range of languages is defined as per the XML W3C specification. Data-type = string.

<sup>2</sup> An element for each language

## <full>

**Description:** This element contains all of the necessary content material that forms the description e.g. text, images, video, etc.

**Multiplicity:** Occurs zero or more times<sup>3</sup> within the <description> element.

**Attributes:** None<sup>4</sup>.

### Elements:

- comment
- media

## Our needs :

Within LIP most element used a description structure. All element in description structure (short, long and full) can be multiple thus allowing in our case internationalisation.

---

<sup>3</sup> An element for each language

<sup>4</sup> This element is harder to use because there's no attribute to select the language. An alternative must be found for internationalisation of this element.

## 2. Example of a specific vocabulary using VDEX

This example is based on a proposal from ETB and CEN about vocabulary for LearningSituation and a binding coming from IMS using IMS VDEX.

In the first step we will see the entire vocabulary, in second step the binding and in last step an example of a "reflexion" element in a LIP using this vocabulary.

### 2.1. Vocabulary for LearningSituation (ETB)

LearningSituation							
en	de	es	fr	it	sv	da	el
<b>Teaching Methods</b>	<b>Lehrmethoden</b>	<b>Métodos de enseñanza</b>	<b>Méthodes d'enseignement</b>	<b>Metodo D'insegnamento</b>	<b>Metodik</b>	<b>Undervisningsmetoder</b>	<b>μέθοδοι διδασκαλίας</b>
Brainstorming	Brainstorming	Brainstorming	Brainstorming	Brainstorming	Idékläckning, brainstorming	Brainstorming	ελεύθερη συζήτηση
Computer assisted instruction	Computer-gestützte Unterweisung	Enseñanza asistida por ordenador	Enseignement assisté par ordinateur	Istruzione assistita da computer	Datorstödd undervisning	Computerstøttet læring	διδασκαλία με την βοήθεια υπολογιστή
Cooperative learning	Kooperatives Lernen	Aprendizaje cooperativo	Apprentissage coopératif	Apprendimento cooperativo	Grupplärande	Samarbejds-læring	συνεργατική μάθηση
Demonstrations	Demonstrationen, Vorführungen	Demostraciones	Démonstrations	Dimostrazione	Demonstrationer	Demonstrationer	Παραδειγματική διδασκαλία
Discovery learning	Entdeckendes Lernen	Aprendizaje por descubrimiento	Apprentissage par découverte	Apprendimento per scoperta	Undersökande arbetssätt	Undersøgende arbejdsformer	διερευνητική μάθηση
Discussions	Diskussionen	Discusiones	Discussions	Discussione	Diskussioner	Diskussioner	συζητήσεις
Hands-on learning	Praktisches Lernen	Aprendizaje por experimentación	Apprentissage par manipulation	Apprendimento manipolativo	Laborativt lärande	Hands-on læring	εμπειρική μάθηση
Interdisciplinary	Fächerübergreifendes Unterrichten	Interdisciplinario	Interdisciplinaire	Interdisciplinare	Tvårvetenskaplig undervisning	Tværfaglige aktiviteter	Διαθεματικότητα
Learning modules	Unterrichtseinheiten, -module	Módulos de aprendizaje	Modules d'apprentissage	Moduli di apprendimento	Inlärningsmoduler	Læringsmoduler	μαθήματα
Lecture	Vorlesung	Conferencia	Lecture	Conferenza	Föreläsningar	Foredrag	διάλεξη
Montessori Method	Montessori Methodik	Método Montessori	Méthode Montessori	Metodo Montessori	Montessoripædagogik	Montessori metoden	μέθοδος Μοντεσσόρι
Museum education	Museumpædagogik	Enseñanza en museos	Enseignement mené par les musées	Attività educativa in museo	Museikunskap	Museumsundervisning	μουσειακή αγωγή
Peer Tutoring	Gegenseitige Unterweisung	Enseñanza entre compañeros	Enseignement mutuel	Tutoraggio tra pari	Kollegahandledning	Indbyrdes undervisning	
Project-based learning	Projektorientiertes Lernen	Aprendizaje basado en proyectos	Apprentissage basé sur un projet	Apprendimento basato su progetti	Projektbaserat lärande	Projektbaseret læring	μάθηση βάσει οργανωμένων δραστηριοτήτων
Role playing	Rollenspiel	Juego de rol	Jeu de rôle	Giochi di ruolo	Rollspel	Rollespil	υπόδυση ρόλων
Self directed groups	Selbstgesteuerte Gruppen	Grupos auto-dirigidos	Auto apprentissage	Gruppi autodiretti	Självstyrande grupper	Selvstyrende grupper	Αυτοδιαχειριζόμενες ομάδες
Self-paced learning modules	Selbstablaufende Lernmodule	Módulos autónomos de aprendizaje	Modules d'apprentissage auto-rythmés	Moduli per l'apprendimento autonomo	Självstudiemoduler	Moduler der tilpasses indlæringshastigheden	ενόητες αυτορυθμιζόμενης μάθησης
Simulations and games	Simulationen und Spiele	Simulaciones y juegos	Simulations et jeux	Simulazioni e gioco	Simulationer och spel	Simulationer og spil	Προσομοιώσεις και παιχνίδια
Team teaching	Team-Teaching / Unterrichten im Team	Enseñanza de grupo	Enseignement par équipe	Insegnamento di gruppo	Undervisning i team	Teamundervisning	διδασκαλία με ομάδες εργασίας
Tutorial programs	Stütz- und Förderprogramme	Programas tutoriales	Programmes tutoriels	Programma tutoriale	Handledarprogram	Støtte- og hjælpeprogrammer	πρόγραμμα διδασκαλίας

## 2.2. Binding XML IMS VDEX

[http://www.imsglobal.org/vdex/vdexv1p0/imsvdex\\_bestv1p0.html#1527364](http://www.imsglobal.org/vdex/vdexv1p0/imsvdex_bestv1p0.html#1527364)

This data is from European Schoolnet, European Learning Resources Thesaurus Multilingual vocabulary for learning situation, <http://www.eun.org/etb/voc/pedagogical.pdf>

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- edited with XML Spy v4.4 U (http://www.xmlspy.com) by Adam Richard Cooper (FD Learning Ltd) -->
<vdex xmlns="http://www.imsglobal.org/xsd/imsvdex_v1p0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.imsglobal.org/xsd/imsvdex_v1p0 imsvdex_v1p0pd.xsd http://www.imsglobal.org/xsd/imsmd_rootv1p2p1
imsmd_rootv1p2p1.xsd" orderSignificant="false" profileType="flatTokenTerms" language="en">
  <vocabName>
    <langstring language="en">ETB - Teaching Methods</langstring>
    <langstring language="es">ETB - Métodos de enseñanza</langstring>
    <langstring language="fr">ETB - Méthodes d'enseignement</langstring>
    <langstring language="el">ETB - μέθοδοι διδασκαλίας</langstring>
    <!-- this is only a fragment -->
  </vocabName>
  <vocabIdentifier>http://www.eun.org/etb/voc/pedagogical.doc#teaching_methods</vocabIdentifier>
  <term>
    <termIdentifier>brainstorm</termIdentifier>
    <caption>
      <langstring language="en">Brainstorming</langstring>
      <langstring language="es">Brainstorming</langstring>
      <langstring language="fr">Brainstorming</langstring>
      <langstring language="el">ελεύθερη συζήτηση</langstring>
    </caption>
  </term>
  <term>
    <termIdentifier>CAI</termIdentifier>
    <caption>
      <langstring language="en">Computer assisted instruction</langstring>
      <langstring language="es">Enseñanza asistida por ordenador</langstring>
      <langstring language="fr">Enseignement assisté par ordinateur</langstring>
      <langstring language="el">διδασκαλία με την βοήθεια υπολογιστή</langstring>
    </caption>
  </term>
  <term>
    <termIdentifier>cooperativeLearning</termIdentifier>
    <caption>
      <langstring language="en">Cooperative learning</langstring>
      <langstring language="es">Aprendizaje cooperativo</langstring>
      <langstring language="fr">Apprentissage coopératif</langstring>
      <langstring language="el">συνεργατική μάθηση</langstring>
    </caption>
  </term>
  <term>
    <termIdentifier>demonstrations</termIdentifier>
    <caption>
      <langstring language="en">Demonstrations</langstring>
      <langstring language="es">Demostraciones</langstring>
      <langstring language="fr">Démonstrations</langstring>
      <langstring language="el">Παραδειγματική διδασκαλία</langstring>
    </caption>
  </term>
  <term>
    <termIdentifier>discoveryLearning</termIdentifier>
    <caption>
      <langstring language="en">Discovery learning</langstring>
      <langstring language="es">Aprendizaje por descubrimiento</langstring>
      <langstring language="fr">Apprentissage par découverte</langstring>
      <langstring language="el">...</langstring>
    </caption>
  </term>
  <term>
    <termIdentifier>discussions</termIdentifier>
    <caption>
      <langstring language="en">Discussions</langstring>
      <langstring language="es">Discusiones</langstring>
      <langstring language="fr">Discussions</langstring>
      <langstring language="el">...</langstring>
    </caption>
  </term>
  <term>
    <termIdentifier>HOL</termIdentifier>
    <caption>
      <langstring language="en">Hands-on learning</langstring>
      <langstring language="es">Aprendizaje por experimentacion</langstring>
      <langstring language="fr">Apprentissage par manipulation</langstring>
      <langstring language="el">...</langstring>
    </caption>
  </term>
</vdex>
```

```

</term>
</term>
<term>
  <termIdentifier>interdisciplinary</termIdentifier>
  <caption>
    <langstring language="en">Interdisciplinary</langstring>
    <langstring language="es">Interdisciplinario</langstring>
    <langstring language="fr">Interdisciplinaire</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
</term>
<term>
  <termIdentifier>learningModules</termIdentifier>
  <caption>
    <langstring language="en">Learning modules</langstring>
    <langstring language="es">Modulos de aprendizaje</langstring>
    <langstring language="fr">Modules d'apprentissage</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
</term>
<term>
  <termIdentifier>lecture</termIdentifier>
  <caption>
    <langstring language="en">Lecture</langstring>
    <langstring language="es">Conferencia</langstring>
    <langstring language="fr">Lecture</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
</term>
<term>
  <termIdentifier>montessoriMethod</termIdentifier>
  <caption>
    <langstring language="en">Montessori Method</langstring>
    <langstring language="es">Método Montessori</langstring>
    <langstring language="fr">Méthode Montessori</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
</term>
<term>
  <termIdentifier>museumEducation</termIdentifier>
  <caption>
    <langstring language="en">Museum education</langstring>
    <langstring language="es">Enseñanza en museos</langstring>
    <langstring language="fr">Enseignement mené par les musées</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
</term>
<term>
  <termIdentifier>peerTutoring</termIdentifier>
  <caption>
    <langstring language="en">Peer Tutoring</langstring>
    <langstring language="es">Enseñanza entre compañeros</langstring>
    <langstring language="fr">Enseignement mutuel</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
</term>
<term>
  <termIdentifier>PBL</termIdentifier>
  <caption>
    <langstring language="en">Project-based learning</langstring>
    <langstring language="es">Aprendizaje basado en proyectos</langstring>
    <langstring language="fr">Apprentissage basé sur un projet</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
</term>
<term>
  <termIdentifier>rolePlaying</termIdentifier>
  <caption>
    <langstring language="en">Role playing</langstring>
    <langstring language="es">Juego de rol</langstring>
    <langstring language="fr">Jeu de rôle</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
</term>
<term>
  <termIdentifier>SDG</termIdentifier>
  <caption>
    <langstring language="en">Self directed groups</langstring>
    <langstring language="es">Grupos autodirigidos</langstring>
    <langstring language="fr">Auto apprentissage</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
</term>

```



```

<termIdentifier>SPLM</termIdentifier>
<caption>
  <langstring language="en">Self-paced learning modules</langstring>
  <langstring language="es">Modulos autonomos de aprendizaje</langstring>
  <langstring language="fr">Modules d'apprentissage auto-rythmés</langstring>
  <langstring language="el">...</langstring>
</caption>
</term>
<term>
  <termIdentifier>SAG</termIdentifier>
  <caption>
    <langstring language="en">Simulations and games</langstring>
    <langstring language="es">Simulaciones y juegos</langstring>
    <langstring language="fr">Simulations et jeux</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
<term>
  <termIdentifier>teamTeaching</termIdentifier>
  <caption>
    <langstring language="en">Team teaching</langstring>
    <langstring language="es">Enseñanza de grupo</langstring>
    <langstring language="fr">Enseignement par équipe</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
<term>
  <termIdentifier>tutorialPrograms</termIdentifier>
  <caption>
    <langstring language="en">Tutorial programs</langstring>
    <langstring language="es">Programas tutoriales</langstring>
    <langstring language="fr">Programmes tutoriels</langstring>
    <langstring language="el">...</langstring>
  </caption>
</term>
<metadata>
  <lom xmlns="http://www.imsglobal.org/xsd/imsmd_rootv1p2p1">
    <relation>
      <kind>
        <source>
          <langstring>LOMv1.0</langstring>
        </source>
        <value>
          <langstring>IsBasedOn</langstring>
        </value>
      </kind>
      <resource>
        <description>
          <langstring>European Schoolnet, European Treasury Browser - Multilingual
vocabulary for learning situation, http://www.eun.org/etb/voc/pedagogical.doc</langstring>
        </description>
      </resource>
    </relation>
    <relation>
      <kind>
        <source>
          <langstring>LOMv1.0</langstring>
        </source>
        <value>
          <langstring>IsBasedOn</langstring>
        </value>
      </kind>
      <resource>
        <description>
          <langstring>GEM LearningSituation Original vocabulary translated in 7 languages
for ETB </langstring>
        </description>
      </resource>
    </relation>
  </lom>
</metadata>
</vdex>

```

## 2.3. LIP using this vocabulary

Example of an external call to this vocabulary in LIP<sup>5</sup>:

```
...
<reflexion>
  <typename>
    <tysource sourcetype="standard">
      http://www.eun.org/etb/voc/pedagogical.xml
    </tysource>
    <tyvalue>learningModules</tyvalue>
  </typename>
  <contenttype>
    <referential>
      <indexid>reflexion_02</indexid>
    </referential>
  </contenttype>
  <authorship>ETB</authorship>
  <description>
    <short lang="fr">Module pour débutant</short>
    <short lang="en">Beginner module</short>
    <short lang="de">...</short>
  </description>
</reflexion>
...
```

---

<sup>5</sup> There's no official proposal for implementation of IMS VDEX with IMS LIP so I provide here my own vision

### 3. Proposal for a specific vocabulary for EDS AP using VDEX (to discuss)

This proposal is based for the moment on French and German EDS Application Profile, with some extensions needed for these countries.

All of this must be discussed and agreed by all the partners if we want to use this kind of external vocabulary in LIP for internationalisation.

#### 3.1. Vocabulary for EDS

EDS				
	en	de	fr	nl
	<b>European diploma supplement</b>		<b>Supplément au diplôme européen</b>	
<b>1</b>	<b>Information identifying the holder of the qualification</b>	<b>Persönliche Daten</b>	<b>Informations sur le titulaire du diplôme</b>	
1.1	Family name	Name	Nom	
1.2	First name	Vorname	Prénom	
1.3	Date of birth	Geburtsdatum	Date de naissance	
1.3.1	Place of birth	Geburtsort	Lieu de naissance	
1.3.2	Country of birth	Geburtsland	Pays de naissance	
1.4	Student identification number or code	Matrikel-Nummer	Numéro ou code d'identification de l'étudiant	
<b>2</b>	<b>Information identifying the qualification</b>	<b>Bezeichnung der Qualifikation und der verleihenden Institution</b>	<b>Informations sur le diplôme</b>	
2.1	Name of qualification and title conferred	Bezeichnung der Qualifikation	Intitulé du diplôme	
2.1.1	Qualification/Abbreviated	Qualifikation/Abkürzung	Qualification abrégée	
2.1.2	Name of qualification	Bezeichnung der Qualifikation	Nom de la qualification	
2.1.3	Name of title	Bezeichnung des Titels	Nom du titre	
2.1.4	Title/Abbreviated	Titel/Abkürzung	Titre abrégé	
2.2	Main fields of study	Studienfach/Studienfächer	Principal/Principaux domaine(s) d'étude couvert (s) par le diplôme	
2.3	Name and status of awarding institution	Name und Status der verleihenden Institution	Nom et statut de l'établissement ayant délivré le diplôme	
2.3.1	Faculty/Department	Fakultät/Fachbereich o.ä.	Faculté / département	
2.3.2	Status type	Status Typ		
2.3.3	Status control	Status Trägerschaft		
2.4	Name and status of institution administering studies	Name und Status der programmumfassenden Institution	Nom et statut de l'établissement ayant dispensé les cours	
2.4.1	Faculty/Department	Fakultät/Fachbereich o.ä.	Faculté / département	
2.4.2	Status type	Status Typ		
2.4.3	Status control	Status Trägerschaft		
2.5	Language of instruction	Unterrichtssprache	Langue(s) utilisée(s) pour l'enseignement/les examens	
<b>3</b>	<b>Information on the level of the qualification</b>	<b>Ebene der Qualifikation</b>	<b>Renseignements concernant le niveau du diplôme</b>	
3.1	Level of qualification	Ebene der Qualifikation	Niveau du diplôme	
3.2	Official length of programme	Dauer des Studienprogramms	Durée officielle du programme d'étude	
3.3	Access requirements	Zugangserfordernisse	Conditions d'accès	
<b>4</b>	<b>Information on the contents and results gained</b>	<b>Studieninhalte und Studienerfolg</b>	<b>Informations concernant le contenu du diplôme et les résultats obtenus</b>	
4.1	Mode of study	Form des Studiums	Organisation des études	
4.2	Programme requirements	Studienanforderungen	Exigences du programme	
4.2.1	Competency		Compétences	

4.3	Programme details	Verlauf des Studiums	Précisions sur le programme et sur les crédits obtenus	
4.4	Grading scheme	Notenskala	Système de notation et, si possible, informations concernant la répartition des notes	
4.5	Overall classification of the qualification	Gesamtbewertung	Classification générale du diplôme	
<b>5</b>	<b><i>Information on the function of the qualification</i></b>	<b><i>Funktionen der Qualifikation</i></b>	<b><i>Informations sur la fonction du diplôme</i></b>	
5.1	Access to further study	Zugang zu weiteren Studien	Accès à un niveau supérieur	
5.2	Professional status	Beruflicher Status	Statut professionnel conféré	
<b>6</b>	<b><i>Additional information</i></b>	<b><i>Zusätzliche Informationen</i></b>	<b><i>Renseignements complémentaires</i></b>	
6.1	Additional information	Zusätzliche Informationen	Renseignements complémentaires	
6.2	Further information sources	Weitere Informationsquellen	Autres sources d'informations	
<b>7</b>	<b><i>Certification of the supplement</i></b>	<b><i>Zertifizierung des Diploma Supplement</i></b>	<b><i>Certification de l'annexe descriptive</i></b>	
7.1	Date	Ort/Datum der Ausstellung	Date	
7.2	Signature/Certifying official	Unterschrift/Unterzeichnende Person	Signature	
7.3	Capacity/Official post	Dienststellung/Dienststelle	Qualité du signataire	
7.4	Official stamp/seal	Siegel/Stempel	Tampon ou cachet officiel	
<b>8</b>	<b><i>Information on the national higher education system</i></b>	<b><i>Informationen über das nationale Hochschulsystem</i></b>	<b><i>Renseignements concernant le système national (les systèmes nationaux d'enseignement supérieur)</i></b>	

Highlight identify which extended vocabulary element is needed for a specific country.

## 3.2. Binding XML IMS VDEX

This IMS VDEX binding use a profilType "flatTokenTerms", we also can use a taxonomy profileType...

```
<?xml version="1.0" encoding="UTF-8"?>
<!--not validated with an XML Parser-->
<vdex xmlns="http://www.imsglobal.org/xsd/imsvdex_v1p0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.imsglobal.org/xsd/imsvdex_v1p0 imsvdex_v1p0pd.xsd http://www.imsglobal.org/xsd/imsmd_rootv1p2p1
imsmd_rootv1p2p1.xsd" orderSignificant="false" profileType="flatTokenTerms" language="en">
  <vocabName>
    <langstring language="de"> </langstring>
    <langstring language="en"> European Diploma Supplement</langstring>
    <langstring language="fr"> Supplément au diplôme européen</langstring>
    <langstring language="nl"> </langstring>
    <!--can be extended for other country -->
  </vocabName>
  <vocabIdentifier>http://europa.eu.int/comm/education/policies/rec\_qual/recognition/diploma\_en.html</vocabIdentifier>
  <term>
    <termIdentifier>1</termIdentifier>
    <caption>
      <langstring language="de"> Persönliche Daten </langstring>
      <langstring language="en"> Information identifying the holder of the qualification </langstring>
      <langstring language="fr"> Informations sur le titulaire du diplôme </langstring>
      <langstring language="nl"> </langstring>
    </caption>
  </term>
  <term>
    <termIdentifier>1.1</termIdentifier>
    <caption>
      <langstring language="de">Name</langstring>
      <langstring language="en">Family name</langstring>
      <langstring language="fr">Nom</langstring>
      <langstring language="nl"> </langstring>
    </caption>
  </term>
  <term>
    <termIdentifier>1.2</termIdentifier>
    <caption>
      <langstring language="de">Vorname</langstring>
      <langstring language="en">First name</langstring>
      <langstring language="fr">Prénom</langstring>
      <langstring language="nl"> </langstring>
    </caption>
  </term>
  ...
  <metadata>
    <lom xmlns="http://www.imsglobal.org/xsd/imsmd_rootv1p2p1">
      <relation>
        <kind>
          <source>
            <langstring>LOMv1.0</langstring>
          </source>
          <value>
            <langstring>IsBasedOn</langstring>
          </value>
        </kind>
        <resource>
          <description>
            <langstring>Telcert proposal - Multilingual vocabulary European Diploma Supplement, http://europa.eu.int/comm/education/policies/rec\_qual/recognition/diploma\_en.html</langstring>
          </description>
        </resource>
      </relation>
    </lom>
  </metadata>
</vdex>
```

### 3.3. LIP using this vocabulary

Example of an external call to this vocabulary in LIP (<reflexion> explaining language of instruction):

```
...
<reflexion>
  <typename>
    <tysource sourcetype="standard">
      http://europa.eu.int/comm/education/policies/rec\_qual/recognition/eds.xml
    </tysource>
    <tyvalue>2.5</tyvalue>
  </typename>
  <contenttype>
    <referential>
      <indexid>reflexion_15</indexid>
    </referential>
  </contenttype>
  <authorship>EDS</authorship>
  <description>
    <short lang="de">Franzosisch</short>
    <short lang="en">French</short>
    <short lang="fr">Français</short>
    <short lang="nl">...</short>
  </description>
</reflexion>
...
```

**In the same way for the first element (holder of qualification), we can either use :**

```
<name>
  <typename>
    <tysource sourcetype="imsdefault"/>
    <tyvalue>Full</tyvalue>
  </typename>
  <contenttype>
    <referential>
      <indexid>name_01</indexid>
    </referential>
  </contenttype>
  <partname>
    <typename>
      <tysource sourcetype="standard">
        http://europa.eu.int/comm/education/policies/rec\_qual/recognition/eds.xml
      </tysource>
      <tyvalue>1.2</tyvalue>
    </typename>
    <text>David</text>
  </partname>
  <partname>
    <typename>
      <tysource sourcetype="standard">
        http://europa.eu.int/comm/education/policies/rec\_qual/recognition/eds.xml
      </tysource>
      <tyvalue>1.1</tyvalue>
    </typename>
    <text>Martin</text>
  </partname>
</name>
```

Or imsdefault vocabulary :

```
<name>
  <typename>
```

```

        <tysource sourcetype="imsdefault"/>
        <tyvalue>Full</tyvalue>
    </typename>
    <contenttype>
        <referential>
            <indexid>name_01</indexid>
        </referential>
    </contenttype>
    <partname>
        <typename>
            <tysource sourcetype="imsdefault"/>
            <tyvalue>First</tyvalue>
        </typename>
        <text>David</text>
    </partname>
    <partname>
        <typename>
            <tysource sourcetype="imsdefault"/>
            <tyvalue>Last</tyvalue>
        </typename>
        <text>Martin</text>
    </partname>
</name>

```

### Demographics information :

```

<demographics>
    <typename>
        <tysource sourcetype="standard">
http://europa.eu.int/comm/education/policies/rec\_qual/recognition/eds.xml
        </tysource>
        <tyvalue>1.3</tyvalue>
    </typename>
    <contenttype>
        <referential>
            <indexid>demographics_01</indexid>
        </referential>
    </contenttype>
    <date>
        <typename>
            <tysource sourcetype="imsdefault"/>
            <tyvalue>Birth</tyvalue>
        </typename>
        <datetime>1976-01-01</datetime>
    </date>
</demographics>

<demographics>
    <typename>
        <tysource sourcetype="standard">
http://europa.eu.int/comm/education/policies/rec\_qual/recognition/eds.xml
        </tysource>
        <tyvalue>1.4</tyvalue>
    </typename>
    <contenttype>
        <referential>
            <indexid>demographics_02</indexid>
        </referential>
    </contenttype>
    <uid>1234567890</uid>
</demographics>

```

Information like title of a qualification can use <title> element to evidence original country and <description> for each translation :

```
<qcl>
  <typename>
    <tysource sourcetype="standard">
      http://europa.eu.int/comm/education/policies/rec\_qual/recognition/eds.xml
    </tysource>
    <tyvalue>2</tyvalue>
  </typename>
  <contenttype>
    <indexid>qcl_01</indexid>
  </contenttype>
  <title lang="fr">Diplôme d'Etudes Universitaires Générales Sciences Humaines et
  Sociales mention Histoire</title>
  <organization>
    <typename>
      <tysource sourcetype="standard">
        http://europa.eu.int/comm/education/policies/rec\_qual/recognition/eds.xml
      </tysource>
      <tyvalue>2.3</tyvalue>
    </typename>
    <description>
      <long lang="fr">Université Michel de Montaigne - Bordeaux 3
      (Etablissement public)</long>
      <long lang="en">University Michel de Montaigne - Bordeaux 3
      (Public)</long>
    </description>
  </organization>
  <level>
    <text lang="fr">niveau 2</text>
  </level>
  <date>
    <typename>
      <tysource sourcetype="imsdefault"/>
      <tyvalue>Award</tyvalue>
    </typename>
    <datetime>1997-10-16</datetime>
  </date>
  <description>
    <short lang="en">History intermediate degree (one year before licence
    degree)</short>
  </description>
</qcl>
```



## 4. Annexes

### 4.1. Example of vocabulary UKDLIP

Please give feedback if you use this document, so that future versions can be improved

In time, these will be moved as VDEX files to <http://www.cetis.ac.uk/profiles/vocabularies>

Title: Controlled vocabularies for UKDLIP

Version: 1.91

Status: draft of first proposed semi-stable version

Note: some of the imsdefault terms have been dropped- more may be

Author: Simon Grant

Date: 2004-06-20

Descriptions of data element / permitted value	element / values	origin	1 note	LUSID	ePARS
Temporal metadata	temporal				
		Creation imsdefault			
		Expiry imsdefault			
		Purge imsdefault			
this should be used for update time of the record, not <date>		Update imsdefault			
Activity: past, present or future	activity		2		
unpaid caring, where there is assumed responsibility		Care UKLeaP			
professional or any skill or quality development		Development UKLeaP			
compulsory or in educational institution		Education UKLeaP		study	
just to cover cases where a list cannot be broken down		List UKLeaP			
personal activity or experience (hobby, interest etc.)		Personal UKLeaP		leisure/personal	
work placement (as part of educational programme)		Placement UKLeaP			
undefined or general productive activity (as needed for products)		Productive UKLeaP			
voluntary work by nature unpaid		Service UKLeaP		voluntary	
normally part of other activity		TimeSlice UKLeaP		used for journal entry	
if it doesn't count as education		Training UKLeaP			
paid work, including potentially paid work experience		Work UKLeaP			
Address	address				
to hold any details connected with place of birth		BirthPlace UKLeaP			
address for learners at place of learning (when in session)		Campus imsdefault			
domicile only if officially registered		Domicile UKLeaP			
only if Domicile or Personal is not permanent		Permanent imsdefault			
second choice for home address if not registered domicile		Personal UKDLIP			
personal address in conjunction with permanent		Temporary imsdefault			
normal workplace for any worker (including educational)		Work imsdefault			
Affiliation - to any relevant company, body or organization	affiliation				
learner registration with educational institution		Educational UKLeaP			
engagement as an employee		Employment UKLeaP			
to state or nation where learner is a national		National UKDLIP			
registration, etc., with official or other bodies		Official UKLeaP			
club, society etc. for social, leisure, recreation; NOT official		Personal UKLeaP			
professional body, association where learner is member		Professional UKLeaP			
Agent	agent		3		
		Advisor imsdefault			
		Aide imsdefault			
		Guardian imsdefault			
		Mentor imsdefault			
		NextOfKin UKDLIP			
		Parent imsdefault			
		Proxy imsdefault			
		Referee UKDLIP			
		Sponsor imsdefault			

Agent domain	agentdomain		
		Accessibility imsdefault	
		Educational imsdefault	
		Financial imsdefault	
		Legal imsdefault	
		Medical imsdefault	
Assertion (see Reflexion)	assertion		7
	record of an agreement	Agreement UKLeaP	
	assertion on an aspect of something	Aspect UKLeaP	
	taking all its meaning from relationships with other parts	ContextDefined UKLeaP	
	general informative note, use specified in rationale	Note UKLeaP	
	assertion about the past that is not tied to any particular activity	Retrospection UKLeaP	
	includes "personal statement"	SelfPresentation UKLeaP	
	primarily in assessment of one or more competencies	Strengths UKLeaP	
	assessment etc. of any other element (not competency)	Valuation UKLeaP	8
	primarily in assessment of one or more competencies	Weaknesses UKLeaP	
Contact Information	contactinfo		
	(these should all match up with Address types)	Campus UKLeaP	
		Domicile UKLeaP	
		Permanent UKDLIP	
		Personal UKDLIP	
		Temporary UKDLIP	
		Work UKLeaP	
All dates	date		
	qcl	Award UKLeaP	
	for placement in the principal Demographics structure	Birth UKLeaP	
	creation of product, reflexion	Create UKLeaP	
		Death imsdefault	
	includes destruction of products	Delete UKLeaP	
	for activities planned or in progress	EarliestFinish UKLeaP	
	for planned activities	EarliestStart UKLeaP	
	for affiliation, and non-certificated qcl (achievement)	Effective UKLeaP	
	this covers registration	Enrol imsdefault	4
	affiliation	Expiry UKLeaP	
	for past, fixed future, or undifferentiated future dates	Finish UKLeaP	
	commencement of participation, if different from Start	Join UKLeaP	4
	for activities planned or in progress	LatestFinish UKLeaP	
	for planned activities	LatestStart UKLeaP	
	product, reflexion	Publish UKLeaP	
	a specific date of the subject matter of a reflexion	Reference UKLeaP	
	for affiliations	Renewal imsdefault	
	for goals, etc.: primarily for setting dates in future	Review UKDLIP	
	for past, fixed future, or undifferentiated future dates	Start UKLeaP	
	alterable future date for goals not yet achieved	Target UKLeaP	
	of product / object itself - for update time of record, use <temporal>	Update UKLeaP	
Definition - official description of activity	definition		
	a single session, smallest unit of activity	Class imsdefault	
	programme of study	Course imsdefault	
	group of subjects studied at any level	Curriculum imsdefault	
	part of a course	Module UKLeaP	
	something studied at any level; may be part of curriculum	Topic UKLeaP	
	session with one or very few learners	Tutorial UKDLIP	
	sub-division of module	Unit imsdefault	
Demographics	demographics		5
	use any type name that seems appropriate	*	

Goal	goal	
aimed at personal, professional, career development	Development UKLeaP Education UKLeaP	
where list of goals cannot be broken down	List UKLeaP	
where the implied goal is to overcome or overcome the obstacle	Obstacle UKLeaP	
related to sports, hobbies, interests, personal activities	Personal UKLeaP Work UKLeaP	
Interest	interest	
watches and knows about interest	Observer UKLeaP Participant UKLeaP	
a general principle or belief system	Value UKLeaP	
Name	name	
	Alias UKLeaP Former UKLeaP	
legally recognised name, as on passport etc.	Full UKLeaP	
name as used in common interaction, self-introduction	Preferred UKLeaP	
Organization - for affiliation, qcl	organization	
used to denote the authority of a qcl	Colleague UKLeaP	Colleague
used to denote the authority of a qcl	Committee UKLeaP	Academic Committee
	Educational UKLeaP	Awarding Body / Ed Inst
employer in any sector, private or public	Employer UKLeaP	Employer
	Government UKLeaP	
	Military UKLeaP	
used to denote the authority of a qcl	Other UKDLIP	Other Individual
	Professional UKLeaP	Professional Body
	Recreational UKLeaP	
(note that this is "sensitive" information)	Religious UKLeaP	
used to denote the authority of a qcl	Self UKLeaP	Self
used to denote the authority of a qcl	Supervisor UKLeaP	Educational Supervisor
	Training UKLeaP	
Parts of names	partname	6
name used together with surname, whether or not first	First imsdefault	
all forenames together (as UK birth certificate, passport)	Given UKLeaP	
complete initials without spaces or full stops	Initials imsdefault	
single name as used by friends, if different from First	Nickname UKLeaP	
includes title	Prefix UKLeaP	
where needed, or for some Americans	Suffix imsdefault	
incl. "family" or "last" names (as UK birth certificate, passport)	Surname UKLeaP	
Qualifications, Certificates, Licences, other achievements	qcl	
accreditation of learning (the learning itself is an activity)	Accreditation UKLeaP	
award that doesn't count as qualification	Certificate UKLeaP	
first choice: issued by authorised body in higher education	Degree UKLeaP	
issued by legally competent body	Licence UKLeaP	
just to cover cases where a list cannot be broken down	List UKLeaP	
non-certificated achievement; informally assessed	NonCertificated UKLeaP	
widely recognised educational award, other than degree	Qualification UKLeaP	
Reflexion (see also Assertion)	reflexion	7
reflection before the event	Anticipation UKLeaP	
reflection on an aspect of something	Aspect UKLeaP	
taking all its meaning from relationships with other parts	ContextDefined UKLeaP	
general reflective note, use specified in rationale	Note UKLeaP	
reflexion about the past that is not tied to any particular activity	Retrospection UKLeaP	
primarily in self-assessment of one or more competencies	Strengths UKLeaP	

Relationship	relationship	
from goal to competency, product, qcl	AimsAt UKLeaP	
from assertion to any element	Attests UKLeaP	
from assertion to relationship(Evidences)	Claims UKLeaP	
from assertion to set of other elements	Compiles UKLeaP	
from assertion or reflexion to other element	Evaluates UKLeaP	8
several different uses, see note	Evidences UKLeaP	9
between two instances of activity, competency, interest, product	IsPartOf UKLeaP	
from an earlier thing to a later thing	Precedes UKLeaP	
from assertion to another element	Presents UKLeaP	
from reflexion to another element	ReflectsOn UKLeaP	
evidences negatively	ShowsUp UKLeaP	
from a unique overall activity to a qcl that results	Supplements UKLeaP	
from any of several elements to others weakly caused	Supports UKLeaP	
for use to relate unclear relationships or parts	Undifferentiated UKLeaP	
Status - activity, affiliation, goal, reflexion	status	
affiliation; goal; role	Active UKLeaP	
activity; assertion; evaluation; goal; reflexion	Completed UKLeaP	
assertion; reflexion	Draft UKLeaP	
activity that cannot be completed; affiliation; assertion; reflexion	Expired UKLeaP	
affiliation; goal	Inactive UKLeaP	
activity, evaluation	InProgress UKLeaP	
affiliation awaiting decision	Pending UKLeaP	
contemplated, planned or projected	Prospective UKLeaP	
affiliation; goal; role	Retired UKLeaP	

## 4.2. <description> element : <media> Elements

**Description:** This element is used to contain the electronic materials themselves. Each piece of material is contained within its own element.

**Attributes:**

- **mediamode (required selection from the enumerated list of: Text, Image, Video, Audio, Applet, Application).** Identifies the type of media content that is to be included or referenced.  
Data-type = Enumerated list.
- **mimetype (required string entry as per the mimetype definition of RFC1521).** Identifies the mime-type of media content that is to be included or referenced e.g. image/gif.  
Data-type = String containing a MIME type.
- **contentreftype (selection from the enumerated list: Base64: uri, entityref, Base-64. Default=Base64).** Identifies the type of media encoding. Base64 is used if the material is enclosed between the tags themselves.  
Data-type = Enumerated list.

**Elements:** None.

**Example:**

```
<media mediamode="Image" mimetype="image/gif" contentreftype="uri">
directoryname/filename.gif
</media>
```