

Core-O: A Competence Reference Ontology for Professional and Learning Ecosystems

Supplemental Material

Competency Questions

#	Competency Questions
1	What is competence? What is knowledge? What is attitude? What is skill?
2	Are competencies abilities or capabilities?
3	Are there differences between competence and competency?
4	How a personal competence is constituted/structured?
5	Are there substantial differences between competence and skill?
6	If exist, what is the difference between competence and skill?
7	What is the difference between knowledge and skill?
8	What are the differences between attitude and skill?
9	What are the similarities between competence, knowledge, attitude and skill?
10	What are "other characteristics" associated to a competence?
11	What is the difference between competence and performance?
12	How (in which circumstances) do competences manifest themselves?
13	What is required for a competence to manifest itself?
14	What are the outcomes/outputs of a competence?
15	How do competences react with respect to time?
16	How do competences change/evolve?
17	How to compare the evolution of an individual competence?
18	How are competences identified and assessed?
19	What is the nature of an occupation, functions, job, profession?
20	How are (generic) competences described for an occupation/role?
21	How are competences classified?
22	How to classify the manifestation of a competence?
23	How to classify the results of a competence?
24	How to classify the contexts of a competence?

Ontology Requirements

Personal Competence Sub-Ontology

#	Personal Competence Sub-Ontology Requirements
1	The ontology must consider <i>personal competence</i> inherent to an individual
2	The ontology must consider the <i>person</i> , bearer of the <i>personal competence</i>
3	The ontology must consider the <i>proficiency</i> of personal competence
4	The ontology must consider the <i>evidences</i> of personal competence
5	The ontology must consider the elements of a <i>personal competence</i> (<i>knowledge, skill, attitude, and characteristics</i>)
6	The ontology must consider the parthood relationship between a <i>personal competence</i> and its <i>elements</i>
7	The ontology must consider the personal <i>competence context</i> , encompassing inputs, tools, and resources belonging to this context
8	The ontology must consider the <i>tasks</i> activated by a <i>competence context</i>
9	The ontology must consider the personal competence manifestation (performance) encompassing the <i>tasks</i> performed by the person
10	The ontology must consider the <i>resources</i> used in competence manifestation
11	The ontology must consider the <i>artifacts</i> (<i>inputs</i>) used in competence manifestation
12	The ontology must consider the artifacts (<i>outputs</i>) created/changed in competence manifestation

13	The ontology must consider another outcomes of a competence manifestation
14	The ontology must consider the characteristics of changed/created artifacts

Competence Type Sub-Ontology

#	Competence Type Sub-Ontology Requirements
1	The ontology must consider the capability-requiring role distinction
2	The ontology must consider the specialization relationship between <i>capability-requiring roles</i>
3	The ontology must consider the dependence relationship between <i>capability-requiring roles</i>
4	The ontology must consider the <i>capability-requiring role</i> relationtion with <i>competence type</i>
5	The ontology must consider competence type distinction
6	The ontology must consider human aspect type distinction
7	The ontology must consider human aspect phase distinction
8	The ontology must consider the element of a <i>competence type</i> (<i>knowledge type, skill type, attitude type</i>)
9	The ontology must consider the constitutive relationship between a <i>competence type</i> and its elements
10	The ontology must consider the specialization relationship between <i>competence types</i> and its elements
11	The ontology must consider the dependence relationship between competence types and its elements
12	The ontology must consider task type distinction
13	The ontology must consider the constitutive relationship between <i>task types</i>
14	The ontology must consider the specialization relationship between <i>task types</i>
15	The ontology must consider the dependence relationship between <i>task types</i>
16	The ontology must consider artifact type distinction
17	The ontology must consider <i>task type</i> relationship with <i>resource type</i>
18	The ontology must consider <i>task type</i> relationship with <i>artifact type</i>
19	The ontology must consider the <i>context type</i> distinction (situation type) related to a <i>competence type</i>
20	The ontology must consider the constitutive relationship between <i>artifact types</i>
21	The ontology must consider the specialization relationship between <i>artifact types</i>
22	The ontology must consider the dependence relationship between <i>artifact types</i>
23	The ontology must consider the characterization of <i>artifact types</i>