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INFORMATION SYSTEMS

MASTER THESIS

**“THE CONCEPT OF “TAXONOMY” IN THE SEMANTIC WEB.
DEVELOPING A TAXONOMY OF “TEACHING STAFF” FOR THE GREEK
PRIMARY AND SECONDARY EDUCATION”.**

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Pavlos Siskos

Abstract

This thesis presents a methodology for developing a taxonomy for the “Teaching staff” entity in Primary and Secondary Education. Firstly, it presents the evolution and use of the “taxonomy” concept in various domains.

Afterward, the term taxonomy is compared to the controlled vocabularies, thesauri, and ontologies, that positively operate for the information organization. Furthermore, the common role of sharing and data integration with the Semantic Web and its position in the “family” of the Knowledge Organization Systems (KOS) are presented.

Furthermore, taxonomies from economic activities and education fields are presented. Taxonomy aims to organize and categorize information, facilitating communication, organization, discovery, comparison, learning, and understanding of a real-world field. Right after, our taxonomy development methodology gets analyzed. This development concerns the management of the “Teaching staff” taxonomy in Primary and Secondary Education through the prism of the corresponding European ISA2 methodology.

Additionally, the accessibility of the taxonomy to researchers interested in it enables its implementation in the field of managing education personnel within the public administration. This taxonomy implementation can encompass teaching staff management, including recruitment, integration, school assignment, development, training, recognition, and retirement. Of course, a specifically chosen methodology provides the proper taxonomy structure, organization, and meaning.

Finally, the taxonomy gains added value from transitioning into the WebProtégé online tool. Its classes' relationships are defined and can be converted and extracted from its human-readable to a machine-readable format in turtle language, which offers a more inclusive syntax. This also helps researchers to achieve the purpose of the taxonomy existence.

Keywords: Taxonomy, Classification, Knowledge Graphs, Semantic web, Education, Teaching staff.

Περίληψη

Η εργασία παρουσιάζει μία μεθοδολογία ανάπτυξης της ταξινομίας, της οντότητας του “Teaching staff” στην πρωτοβάθμια και δευτεροβάθμια εκπαίδευση. Αρχικά παρουσιάζει την εξέλιξη και χρήση του όρου της ταξινομίας σε διαφορετικά πεδία – τομείς.

Στη συνέχεια, συγκρίνονται μεταξύ τους ο όρος της ταξινομίας με τα ελεγχόμενα λεξιλόγια, τους θησαυρούς και τις οντολογίες, που λειτουργούν αντίστοιχα προς όφελος της οργάνωσης της πληροφορίας. Ακόμη, παρουσιάζεται ο κοινός ρόλος της ταξινομίας με τον σημασιολογικό ιστό στον διαμοιρασμό και την ενοποίηση δεδομένων, καθώς και η θέση της στην «οικογένεια» των συστημάτων οργάνωσης της γνώσης.

Ακολουθεί η παρουσίαση ταξινομιών του χώρου των οικονομικών δραστηριοτήτων και της εκπαίδευσης. Αποδίδεται ο ευρύτερος στόχος της ταξινομίας, που είναι η συστηματική οργάνωση και κατηγοριοποίηση πληροφοριών με οφέλη στην επικοινωνία, οργάνωση, ανακάλυψη, σύγκριση, μάθηση και κατανόηση ενός πεδίου, το οποίο θα βασίζεται στο ρεαλισμό. Επίσης, αναλύεται η εφαρμογή της μεθοδολογίας στην ανάπτυξη της ταξινομίας μας, η οποία αφορά στη διαχείριση - διοίκηση της οντότητας του “Teaching staff” στην πρωτοβάθμια και δευτεροβάθμια εκπαίδευση και μέσα από το πρίσμα της αντίστοιχης Ευρωπαϊκής μεθοδολογίας του προγράμματος ISA2, η οποία τελικά προσφέρει στην ταξινομία σωστή δομή, οργάνωση και νόημα.

Επιπλέον, η πρόσβαση της ταξινομίας από ενδιαφερόμενους ερευνητές, θα επιτρέψει την εφαρμογή της σε όλο το εύρος της διαχείρισης της πορείας του εκπαιδευτικού προσωπικού στον χώρο της δημόσιας διοίκησης, από την πρόσληψη, την ενσωμάτωση και τη σχολική ανάθεση, στην ανάπτυξη, τη κατάρτιση, την επιβράβευση και τη συνταξιοδότησή του.

Τέλος, η ταξινομία αποκτά προστιθέμενη αξία, με τη μετάβασή της στο διαδικτυακό εργαλείο WebProtégé, στο οποίο ορίζονται οι σχέσεις των κλάσεων της και επιτρέπεται η μετατροπή της human-readable μορφής της σε machine-readable, σε γλώσσα turtle, που διαθέτει μια πιο συνοπτική από άλλες γλώσσες σύνταξη. Έτσι, οι ενδιαφερόμενοι μπορούν να εκπληρώνουν ελεύθερα τον σκοπό της ύπαρξης της ταξινομίας.

Λέξεις-κλειδιά: Ταξινομία, Ταξινόμηση, Γνωσιακοί Γράφοι, Σημασιολογικός Ιστός, Εκπαίδευση, Διδακτικό προσωπικό.

Table of Contents

| | |
|---|----|
| 1. Introduction..... | 1 |
| 2. Literature review | 1 |
| 2.1 First Definition & Meaning..... | 1 |
| 2.1.1. Relevant Scientific Domains & Usage..... | 3 |
| 2.1.2 The “Biology case” | 3 |
| 2.1.3 Libraries, Archives & Information Science | 3 |
| 2.2. Taxonomy on Semantic Web..... | 4 |
| 2.2.1 A General Approach | 4 |
| 2.3. Correlations with Controlled Vocabularies, Thesauri & and Ontologies | 5 |
| 2.3.1 Taxonomy & controlled vocabularies..... | 5 |
| 2.3.2. Taxonomy & Thesaurus:..... | 6 |
| 2.3.3. Taxonomy vs Ontology:..... | 7 |
| 2.4. Taxonomy, Semantic Web, and the KOS family | 8 |
| 2.5. Taxonomies in education | 11 |
| 2.5.1 Nomenclature of Economic Activities (NACE) | 12 |
| 2.5.2 International Standard Classification of Education (ISCED) | 13 |
| 2.5.2.1 ISCED in OECD Countries..... | 14 |
| 2.5.3 World Bank Sector - Taxonomy and Definitions | 15 |
| 2.5.4 Classification of the Functions of Government – (Glossary)..... | 16 |
| 2.5.5 SOLO and Blooms’ Taxonomy | 16 |
| 2.5.6 Another Framework for a Taxonomy of Schools | 18 |
| 3. “Teaching staff” taxonomy development & methodology | 19 |
| 3.1. Scope and Goal | 19 |
| 3.2. Developing methods based on | 20 |
| 3.3. Methodology analysis | 21 |
| 3.3.1. Determine requirements..... | 21 |
| 3.3.2. Consider reuse of existing taxonomies | 22 |
| 3.3.3. Identify concepts | 25 |
| 3.3.4. Determining relationships | 26 |
| 3.3.5. Draft Taxonomy concept | 27 |
| 3.3.6. Taxonomy review, refine, and implementation | 28 |
| 3.3.7. Manage and Maintenance | 29 |
| 4. WebProtégé application – Taxonomy import | 29 |
| 4.1 Introduction..... | 29 |

| | |
|--|----|
| 4.2. WebProtégé Environment..... | 30 |
| 5. Conclusions | 34 |
| 6. Appendices..... | 35 |
| 6.1 Taxonomy in Human-Readable Format..... | 35 |
| 6.2 Taxonomy in Machine-readable format..... | 40 |
| Bibliography | 81 |

Table of Figures

| | |
|--|----|
| Figure 1: Taxonomic hierarchy scheme – Nested hierarchy of modern biological classification (University of Hawaii) | 3 |
| Figure 2: The concretization of the controlled vocabulary categories (from generic to specified) (Bowen, n.d.)..... | 5 |
| Figure 3: “The biology logic”- Hierarchical taxonomy (Hedden & Nagy, 2021). | 6 |
| Figure 4: Thesaurus example – Controlled vocabulary with standard structured relationships (Hedden & Nagy, 2021). | 6 |
| Figure 5: Classification of KOS family – rough divisions (Souza et al., 2012)..... | 9 |
| Figure 6: Various types of KOS (Souza et al., 2012)..... | 10 |
| Figure 7: Taxonomy example by Bowles (Kempe, 2017; Knight, 2017)..... | 11 |
| Figure 8: The most analytical broader "umbrella" category of Education in NACE taxonomy of RAMON Db (Ramon, 2008)..... | 12 |
| Figure 9: Into the class of “Primary Education” (Ramon, 2008)..... | 12 |
| Figure 10: Into the Primary Education Services Sub-items (Ramon, 2008)..... | 13 |
| Figure 11: Differences and slight changes (UNESCO Institute for Statistics, Statistics explained 2022) | 14 |
| Figure 12: Bloom's revised taxonomy (Wilson, 2020). | 18 |
| Figure 13: Development process of a taxonomy according to PwC (PwC EU Services, 2019)..... | 21 |
| Figure 14: This part of the draft taxonomy concept, shows a specific sub-facet, classes, and sub-classes such as the “Higher Education Branch (PE) -Secondary Education Specializations” sub-facet and its relative classes and sub-classes. The list on the right provides the mapping process where we distinguished the way that specific terms of our taxonomy been formatted. We used blue color to declare the direct usage of terms outside the ESCO ontology. We also used orange color to describe that ESCO terms were modified to attach Greek reality terms, and finally, pink color to show the direct selection of ESCO terms or its official relatives that describe the corresponding Greek reality and terms..... | 25 |
| Figure 15: Teaching staff taxonomy part from the inside of the “class hierarchy” WebProtégé environment (Stanford Center for Biomedical Informatics Research, 2015) | 26 |
| Figure 16: Part of the simplified human-readable version of "Teaching Staff taxonomy" | 28 |
| Figure 17: Class creation in WebProtégé class hierarchy field..... | 30 |
| Figure 18: “Create Classes” window in WebProtégé | 30 |
| Figure 19: “Details” screen of “Substitute Employment” class..... | 30 |
| Figure 20: Mid-screen WebProtégé environment; “Part-time Substitute Employment as chosen class | 31 |
| Figure 21: Taxonomy case report, "Teacher" entity | 31 |
| Figure 22: Taxonomy case report, “Education manager” | 32 |
| Figure 23: "School" entity classes & sub-classes (2)..... | 32 |
| Figure 24: "School" entity classes & sub-classes (1)..... | 32 |
| Figure 25: Entity Graph visualization of the “Financial studies teacher (Branch PE-80)” class/entity | 33 |
| Figure 26: Entity Graph visualization for the “Philosophy teacher (Branch PE-02)” class/entity | 33 |
| Figure 27 Taxonomy parts in the entire expansion – (Teacher entity) (1) | 35 |
| Figure 28 Taxonomy parts in the entire expansion – (Teacher entity) (2) | 36 |
| Figure 29 Taxonomy parts in the entire expansion – (Education manager entity) (1)..... | 37 |
| Figure 30 Taxonomy parts in the entire expansion – (Education manager entity) (2)..... | 38 |
| Figure 31 Taxonomy parts in the entire expansion – (Employment status entity) | 38 |
| Figure 32 Taxonomy parts in the entire expansion – (School entity)..... | 39 |

Table of Tables

| | |
|--|----|
| Table 1: ISCED levels 2011 (UNESCO Institute for Statistics, 2012)..... | 13 |
| Table 2: Table for Greek ISCED-97 levels (UNESCO Institute for Statistics, Statistics explained, 2022) | 15 |
| Table 3: Public administration - education field's activities (Bumgarner, 2017)..... | 16 |

1. Introduction

The purpose of this study is to aid researchers in understanding the rationale and techniques involved in constructing taxonomies. Additionally, it provides them with the means and tools to apply these taxonomies in their own work within the domain of teaching staff and public administration.

It begins by presenting a historical overview and comparing crucial terms in the field, establishing the groundwork for comprehending classifications, ontologies, controlled vocabularies, thesauri, and more. After laying down the concept of taxonomy, the study explores its practical applications across various domains. Furthermore, it introduces a taxonomy development methodology utilized by the European Union, which is chosen to serve as the basis for adapting our own methodology as we follow it. In our taxonomy case, we have thoroughly examined this methodology and provided a detailed, step-by-step explanation of its implementation in the context of Greek primary and secondary education.

Next, the thesis discusses how the taxonomy is integrated into the Web-Protégé environment. This integration helps to organize the taxonomy by providing a way to describe attributes of classes and sub-classes, as well as the exact relationships between the taxonomy terms.

In conclusion, the thesis includes appendices at the end that provide taxonomy formats that are readable by both humans and machines. These formats help with organizing and managing structured information, and the machine-readable one is even presented in turtle syntax language. The main objective is to make knowledge generation and data management more efficient and to enable specialists in the field of taxonomies, ontologies, and knowledge graphs to use the taxonomy easily in the future (PwC EU Services, 2019; Zeginis & Tarabanis, 2022).

2. Literature review

2.1 First Definition & Meaning

Historically, taxonomy refers to classification. In general admission, taxonomies can organize knowledge regardless of the research domain to which they belong. Both researchers and organizations point out that specializing in a taxonomy term can quickly end up with a primary, generic definition that covers a wide range of the already given approaches for what

this is about and what it does. For instance, Merriam-Webster reflects Taxonomy as “the study of the general principles of scientific classification” (‘Taxonomy’). This applies to each scientific field, whether it involves Flora and Fauna, books, schools, archives, data science, or the semantic web domain. Another example is written by Knight Michelle in Dataversity. For them, taxonomy is more like a “formal structure of classes or types of objects within a domain” (Knight, 2021, par. 1). Of course, this works by using controlled vocabulary and providing a way for a more straightforward and more related information retrieval process (Knight, 2021; Merriam-Webster, ‘Taxonomy’).

As Nickerson stated, McKnight & Chervany assumed in 2001 that Taxonomies offer a classification for scattered concepts and assumptions, while Williams et al. in 2008 approached taxonomy in a way that helps us understand the principles of object observation science. To be more compatible with the sight of social sciences in Taxonomy, classification systems, and the concept of working with taxonomies, Miller & Roth defined in 1994 the “how to” classification issue for that field. In addition, they conceived the idea of working with taxonomies in parts of the educational field, as discussions, research, and pedagogy were conducted by researchers (Nickerson et al., 2013).

"Introduction to Controlled Vocabularies" attempts to understand the main idea of taxonomy through orderly classification, hierarchical structure, its usage in specific domains of any kind, and that the taxonomy also comprises controlled vocabulary terms. Also, Taxonomy supports the idea of the "parent" and "child" relationships in its terms. It can also dispose of relationships such as the "whole/part" and "genus/species", which generally resembles the “[Biology Case](#)” while also supporting instance relationships that belong to the broader family of the "parent/child" category. It seems similar to a website's dropdown menu, which contains facets below its main "parent" categories. In summary, it is possible to find hierarchical relationships of these kinds among taxonomies and controlled vocabularies (Harpring, 2010).

2.1.1. Relevant Scientific Domains & Usage

2.1.2 The “Biology case”

Several scientific fields have used the taxonomy term over the years. The biology branch was the first to answer the following-up questions from the ongoing discoveries. As a result, everybody knows the term and meaning of the “*Classification of Life*”. It is that field that understood the taxonomy, as a tool for classifying living things, based on their differences and similarities. The biology field also studied the relationships between nature’s organisms and helped us to develop schemes like this in Figure 1 (University of Hawaii).

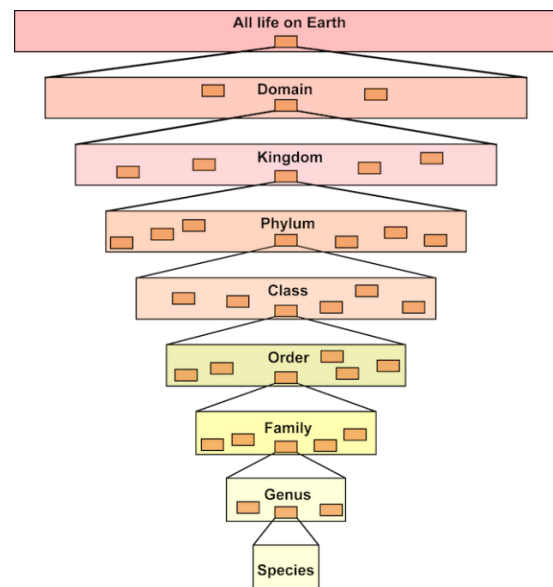


Figure 1: Taxonomic hierarchy scheme – Nested hierarchy of modern biological classification (University of Hawaii)

2.1.3 Libraries, Archives & Information Science

Reaching from the above to define the taxonomy term, it becomes evident that taxonomy does not consist of an entity by itself. Since the Library Science and Information Systems (LIS) used the terms’ properties to upgrade how they organize and classify things, the taxonomic logic has been found in almost every part of the domains’ life. From the beginning, LIS established taxonomic reasoning by creating a classification system that classifies items, named Dewey Decimal Classification (DDC). DDC classification system contains ten general subject categories that can be used for multiple purposes rather than a classification system. After all, it is known that it can support browsing mechanisms for web information. Then is the Library of Congress Classification System (LCC), which provides bibliographic control of the library collections they may use. Amongst others, LCC is being used as a web resources organizer while simultaneously it helps improve information storage and retrieval and generating domain-specific taxonomies (Pierre de Keyser, 2012).

There are aside differences between taxonomy and classification logic. For example, taxonomy logic seems to be much broader than the classification one, and it's also more likely to manage the naming or describing of its contents rather than classification that follows a logic

that cares the most about the items' placement. Well, it doesn't matter if these things (objects) refer to books or other more general stuff (Hedden, 2013). After all, Hedden (2010) considers that the taxonomy separation from the classification term is clear and that "A *taxonomy usually means a controlled vocabulary with a hierarchical structure*" (p. 282), and so is a Thesaurus. A typical example of a Library Science taxonomy is the Library of Congress Subject Headings (LCSH), a controlled vocabulary with hierarchy and categorization properties. Likewise, according to the Society of American Archivists (SAA), LCSH for LIS is "A *controlled vocabulary typically used to provide topical access points for catalog records*", (Hedden, 2010; SAA, 'Library of congress subject headings').

On the occasion of what SAA mentioned above, let's say that there is a Taxonomy kind, which at least covers a few archival works. They call it "*Levels of Arrangement in Fonds*" and represent hierarchical, spiritual, and physical subdivisions that have been used in the archives management, the derivatives of the archival works, as well as in their Fonds, Series, Sub-Series, File(s) and Items' management. In addition, the previous mentions on the "*Levels of Arrangement in Fonds*" and its structural properties (hierarchy and categories) come down to finding aids. What is all about them is that Archivists consider them just like librarians do, as the final product of tools and rules use, just like LCSH, which also provides access to their patrons through taxonomies and classification systems (Peel Art Gallery, Museum, and Archives, 2016; Society of American Archivists, 'Level of arrangement'; Society of American Archivists, 'Respect des Fonds').

2.2. Taxonomy on Semantic Web

2.2.1 A General Approach

Nowadays, Taxonomies can be found between different domains, such as the Semantic Web. Kourtoumi-Chantzi stated that Web 2.0 development (also known as the World Wide Web) and the placement of the Semantic Web basics really seem to organize the internet's chaos. At the same time, information retrieval and access for the general population are being increased radically. She also mentions that Semantic Web, also known as Web 3.0, requires interoperability standards to check the semantic contents of documents or items. It also exploits Ontologies as hierarchical knowledge structures to classify (in terms of a taxonomy) the examined topics or subjects and the concepts with all of their sub-categories based on their basic properties (2011).

Furthermore, Hedden Heather focuses on how the taxonomies differ from the usual classification logic for librarians and Information Scientists in the last century. She separates the usual standard classification logic from what taxonomy does by setting up another perspective based on a hypothetical example of a client who wants to find his searches on a website (Hedden & Nagy, 2021). As we will analyze and explain a few things about what happens with the Semantic Web and taxonomies, everybody must separate in their minds taxonomies, ontologies, and Thesauri, by comparing them to untie the knot.

2.3. Correlations with Controlled Vocabularies, Thesauri & and Ontologies

2.3.1 Taxonomy & controlled vocabularies

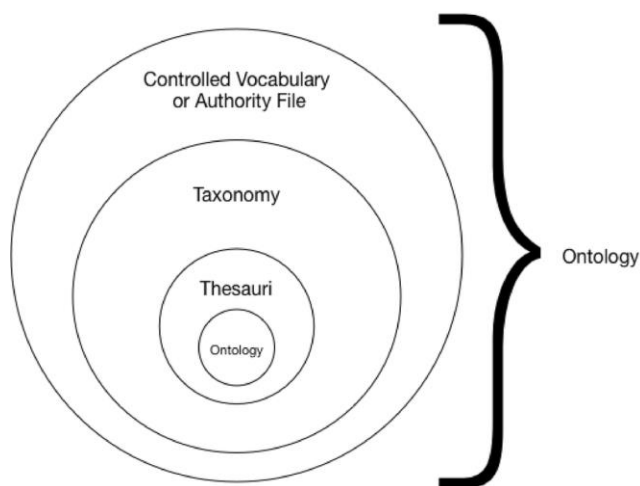


Figure 2: The concretization of the controlled vocabulary categories (from generic to specified) (Bowen, n.d.)

It is said that controlled vocabularies are the broadest category of all of the organizational tools that exist for organizing knowledge (American Society for Indexing, n.d.). UNC (2022) and Bowen (n.d.) stated that controlled vocabularies include subject headings, thesauri, ontologies, and taxonomies. Their purpose meets the need to provide terminology, catalog, and retrieve information. Controlled vocabularies also promote consistency between similar

words and terms and offer a matching between those with similar content (Harpring, 2010).

Indeed, a controlled vocabulary (or even lexicon/dictionary) can also be found as an authority file. But that only changes a little, as it is used for labeling, indexing, or categorizing things, such as words and phrases, that are useful in the indexing and retrieval processes and are used in cases like web searching and retrieval (Bowen, n.d.).

However, according to Harpring (2010), the case seems to be that a controlled vocabulary “typically includes preferred and variant terms and has a defined scope or describes a specific domain” (p. 12). And so, the Taxonomy does in another level of detail, plus, within a specific domain. It is also remarkable that controlled vocabularies are directly liable for linking these concepts that arose from the included variant terms and synonyms we have talked about,

and they are sorted into logical categories without being a necessity for carrying relationships between the terms (Bowen, n.d.; Fraunhofer ISST, 2009).

2.3.2. Taxonomy & Thesaurus:

First of all, let's assume that Taxonomies are just like Thesauri. They are parts of the exact Knowledge Organization System (KOS) category and the controlled vocabulary logic. However, a taxonomy can be followed by hierarchy and faceted, while the Thesaurus concept is more associative and equivalent. Also, according to S. Kopácsi et al., “*Thesaurus is more structured, much richer taxonomy, that uses associative relationships (like “related term”) in addition to parent-child relationships.*” (p. 264). It has also been found that a thesaurus may contain three types of relationships, such as equivalent, hierarchical, and associative (Hedden & Nagy, 2021; Harpring, 2010; Kopácsi et al., 2016).



Figure 3: “The biology logic”- Hierarchical taxonomy (Hedden & Nagy, 2021).

Outlining a thesaurus scheme (Figure 3), taxonomy “*fabric*” can be described as a navigative, hierarchical, and faceted structure and reminds us of a “tree-kind” of the biology case of placing and classification we faced before.

Next is a depiction of a thesaurus example which includes hierarchical, associative, and equivalence relationships between his terms. In contrast to the previous figure, the Thesaurus seems more associative as it’s navigating its users through a “*click to*” process which sends them to check other terms, such as **UF** (Used For), **BT** (Broader Terms), **NT** (Narrower Terms) and **RT** (Related Terms). (Hedden, 2014).

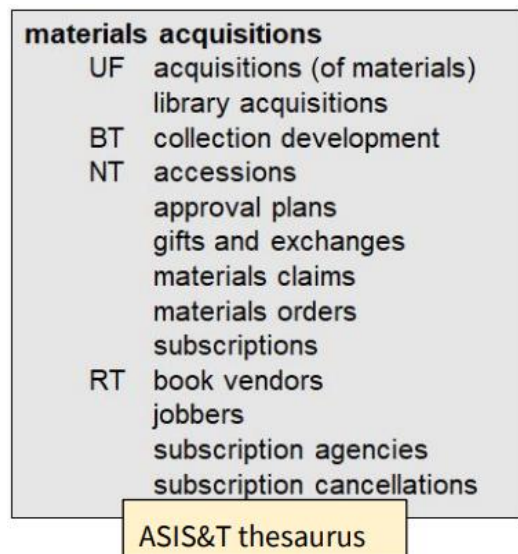


Figure 4: Thesaurus example – Controlled vocabulary with standard structured relationships (Hedden & Nagy, 2021).

Moreover, according to the “*Introduction to Controlled Vocabularies*”, Thesauri contain data and information about things, broader and narrower contexts, and concepts, including definitions, citations, and more. That is why Thesauri are

often attributed as a semantic network and become more complex than a list or a simple taxonomy. At the same time, it can also be used as an “*authority*” type in databases. These characteristics make it the kind of tool that it is (Harpring, 2010).

According to the Open Data Initiative of the Government of Spain and its website, a Thesaurus comes with three kinds of relationships. The 1st one is “*Synchronicity or preference relationships*”, and it’s about relationships between preferred terms, descriptors, or non-preferred terms (NPT). The next one is the “*Whole-part*” or “*Class-subclass*” hierarchical relationship that connects broader and narrower terms. The third and last is the “*Associative relations*” found between related terms in a taxonomic but not hierarchical or synonymous manner (*Taxonomies and Thesauri: Knowledge Organization Tools*, 2017).

2.3.3. Taxonomy vs Ontology:

It is easy to get confused with taxonomies and ontologies. Knight (2017) mentions that to avoid such confusion, people should think of an ontology as an essential taxonomy subset that describes and organizes things (into the semantic web too). Simultaneously, ontology functions as a framework for different knowledge domains, as these contain enriched elements and information about the entities that concern them. It is noteworthy that ontologies can identify and distinguish concepts, describe things and objects, describe relationships and their characteristics, process the information meaning, and relate – integrate heterogenous data to deduce implicit in an automated way (Garfield, 2018; Noy & McGuinness, 2001; Powell & Hopkins, 2015).

In addition, ontologies and vocabularies can describe data in the semantic web for various knowledge domains. This helps whole data collections, or even small parts of them, to make contact and communicate with each other. By that, its users can use a standardized conceptual model, and ontologies can succeed in constructing the basis that the Semantic Web needs to achieve its goals (Jacob, 2003). Taye (2010) adds, «*The foundation of vocabularies and effective communication on the Semantic Web is ontology*” (p. 182). The role of an ontology in sharing knowledge (information exchange) over distributed systems is also known that helps to solve the interoperability issues between organizations’ systems and applications by using languages (such as OWL or RDF) to represent knowledge in a machine-readable way. Yet, other ontology applications can be Semantic Web Service Discovery, AI, Search Engines, etc. (Taye, 2010).

Ontology languages can define and express ontologies to humans and “machines” and enrich knowledge and relations between the study domains. As a result, they are characterized by meanings created by them, such as the classes, attributes, and connections of the items and the knowledge domains they describe. On the other hand, taxonomy reflects a more basic version of classes or objects of their knowledge (or study) domains. At the same time, they can also create knowledge representations using schemas and structured data to depict the knowledge of something. Among its benefits is the easiness that the AI will be able to use these data (Knight, 2017; Sirma AI, n.d.).

2.4. Taxonomy, Semantic Web, and the KOS family

According to Martins et al. (2016), the Semantic web (web 3.0) constitutes the expansion of the traditional web (web 2.0). The semantic web arrival created an environment where information was more available than ever. As a result, the need to meet the users' expectations got far more sophisticated (same meaning as complex, but more elegant). To proceed in this transformation, the semantic web needed semantic annotations, data, and texts that could help it exist and expand. Moreover, due to its nature, it supports integrating data and describing resources and things that may come up using RDF, while taxonomies also play a key role in achieving this goal (Martins et al., 2016; Oxford Learner's Dictionaries, 2022).

Resource Description Framework is becoming useful in knowledge representations for organizations and businesses. For example, according to TechTarget, it is used as “a general framework for representing interconnected data on the web” (Loshin, 2022, para. 1). It is known that RDF has an extension of RDFS, which mainly provides a mechanism for describing groups of RDF-related resources and is used for expressing the relations between them (Hayes & Patel-Schneider, 2014; Loshin, 2022).

Additionally, RDF becomes effective when data integration comes. It can detach data from its schema (RDFS) to allow integration for multiple of its data. As a result, according to Ontotext, it is possible to apply multiple schemas, as well as to enable interlinked data, and authorize data retrieval without modifying them (“What is RDF?”, 2022). Of course, this reminds us of why somebody makes data integration using taxonomies and standard vocabularies for a selected domain, whether there are heterogeneous or homogeneous data sources to use (Fraunhofer IAIS, 2022).

Since we talked about RDF & RDFS, it is time to mention a few things about SKOS. First, SKOS is a part of RDF and gives an advantage to it in composing the concepts being published on the World wide web (Isaac, A., & Summers, E., 2009). With these premises, we can safely conclude that RDF is to provide a standardized way of representing knowledge (World Wide Web Consortium, 2012).

To conclude, it is good to formulate the information about the family of Ontologies, Taxonomies, Thesauri, etc. Its name is KOS (Knowledge Organization Systems), and it can be roughly divided into all these categories of “Unstructured Text”, “Term and Concept Lists”, “Concept and Relationship Structures” and “Concept, Relationship, and Layout Structures”. After that, “organized chaos” emerges, as shown in Figure 5 below. KOS family is often encountered in Semantic Web Frameworks, including semantic web languages such as OWL, RDF/RDFS, SPARQL, and XML (CLIR, 2017; Zeng & Mayr, 2018).

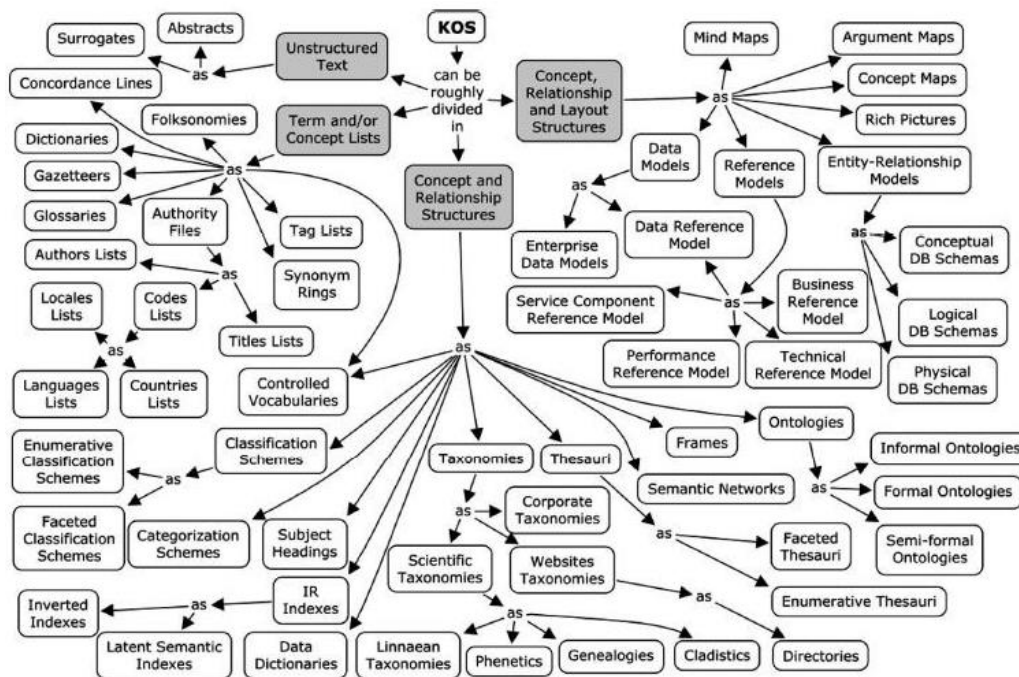


Figure 5: Classification of KOS family – rough divisions (Souza et al., 2012).

There are also various types of KOS, divided into the dimensions of function and structure, as seen in Figure 6. KOS is also generally found in the context of the Semantic Web Framework with data models such as SKOS, OWL, RDF (+RDFS), and SPARQL. These are markup languages, and they become helpful for an ontology to create Knowledge Representations such as Knowledge Graphs (Sirma AI, n.d.; Souza et al., 2012).

Various Types of KOS

Zeng 2008 p. 161

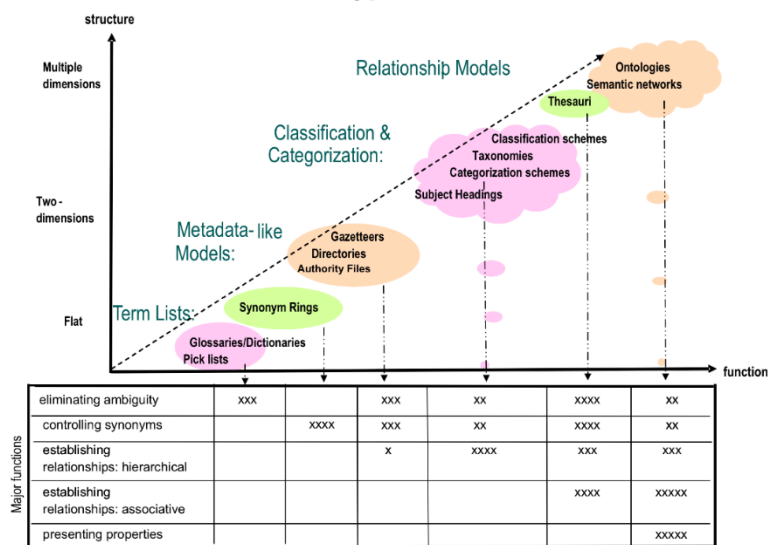


Figure 6: Various types of KOS (Souza et al., 2012)

To make it explicit, Sirma AI (n.d.) stated that an ontology data model (aka, schemes that specify data structures) could create sets of collections of entities by using nodes and edges between them. These edges and nodes are essential for these models to express their types and relationships. Besides, this is the Knowledge Graph, plus, including labels. Finally, answering on how an ontology describes the knowledge for any given domain (shaping one Knowledge Graph), then is, by setting the stage to capture data into a Knowledge Graph (Chein & Mugnier, 2009; Sirma AI, n.d.; Spyns et al., 2002).

Considering Taxonomy in the Semantic Web context forms the basis for ontologies to define and classify domains through the use of taxonomies. As a result, ontologies can now formally represent their entities in a Graph, as taxonomy provides the machine-understandable hierarchy of information (EK Team, 2019; Farrell, 2021).

Meanwhile, these entities' graphs' formal representation can now form the nodes of the graphs, things also known as "Knowledge Graph Entities". Furthermore, these ontologies can describe multiple taxonomies and different kinds of things as they establish their classes, relationships, and the constraints the systems' concepts and entities support (Cagle, 2019).

After all, Knowledge Graphs and Ontologies use the same components to form representations-visualizations. So, they're not other than nodes, edges, and labels, both used with RDF triples (IBM Cloud Education, 2021). The leading Taxonomy utility comes through its

role in the entirety of the semantic web because of the use the ontology makes of it to provide us with the result of a knowledge graph with the taxonomies' classification role in it (Vandewiele, 2020).

In conclusion, taxonomies, ontologies, and thesauri, exist to help people and systems to facilitate access and easily integrate siloed data sources and organize them using graph-structured data models and topologies into this next-generation internets' chaos. Of course, siloed data may come from enterprises, which means a tremendous financial effort to use them and combine them with all the necessary shared taxonomies (Kempe, 2017; Knight, 2017).

Afterward, representation comes, and semantic web standards like RDF & OWL are needed to represent a taxonomy. In this way, it is possible to integrate data into a formal representation (The Alan Turing Institute, 2022; Asman, 2020).

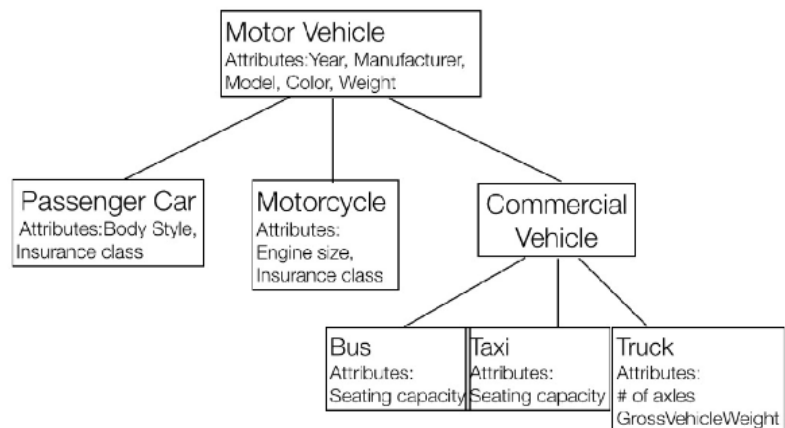


Figure 7: Taxonomy example by Bowles (Kempe, 2017; Knight, 2017)

Thus, according to Asman, combining enterprise data to configure a new data model is necessary. It is also significant to build it on a taxonomic basis, using ontologies and specific terms from the chosen domain (2020).

2.5. Taxonomies in education

In this chapter, we will introduce a few taxonomies/classification standards. They will mainly have to do with the administrative sector of the public education domain, as we aim to create a highly detailed taxonomy at the end of this thesis. Furthermore, the chapter sets a few examples and theories on taxonomy and practices for building one.

2.5.1 Nomenclature of Economic Activities (NACE)

NACE is a European glossary for the statistical classification of economic activities through the European community. It comes in the RAMON “*Reference and Management of Nomenclatures*” database and offers a list of codes to classify its things for various domains in

| Detail | |
|--------|---|
| - P | EDUCATION Detail |
| - 85 | Education Detail |
| + 85.1 | Pre-primary education Detail |
| + 85.2 | Primary education Detail |
| + 85.3 | Secondary education Detail |
| + 85.4 | Higher education Detail |
| + 85.5 | Other education Detail |
| + 85.6 | Educational support activities Detail |

Figure 8: The most analytical broader "umbrella" category of Education in NACE taxonomy of RAMON Db (Ramon, 2008)

any sector. In case to present the main issue of public administration in the education field, we need to focus on its “P” part. NACE education includes categories and sub-categories of the education field, as shown in the taxonomy screenshot in Figure 8. Its main categories consist of education levels, and its areas seem to be under a broader/narrower relationship and hierarchical structure.

Furthermore, this statistical classification of economic activities has a sibling which classifies its produced derivatives, and its full name is “Statistical Classification of Products by Activity”. Figure 8 is intended to present “P85.2”. It corresponds to “*Primary education*” and clarifies the context of its given analysis. Then, Figure 9 presents produced narratives and services created from the first of these classifications (Ramon, 2008).

-> P: EDUCATION
 -> 85: Education
 -> 85.2: Primary education

| Detail |
|--|
| Code: 85.20 |
| Description: Primary education |
| This item includes: This class includes primary education: the furnishing of academic courses and associated course work that give students a sound basic education in reading, writing and mathematics and an elementary understanding of other subjects such as history, geography, natural science, social science, art and music. |
| Such education is generally provided for children, however the provision of literacy programmes within or outside the school system, which are similar in content to programmes in primary education but are intended for those considered too old to enter elementary schools, is also included (i.e. adult literacy programmes). |
| This item excludes: This class excludes: - adult education as defined in 85.5 - child day-care activities, including day nurseries for pupils, see 88.91 |
| Reference to ISIC Rev. 4: 8510 |

Figure 9: Into the class of “Primary Education” (Ramon, 2008)

As seen, they both have a “Code” reference and a description of it and its included or excluded items, such as classes or services. In addition, there is a mapping between the services part and the ISCED level 1 which will be presented below (Ramon, 2008).

```
-> P: EDUCATION SERVICES
-> 85: Education services
-> 85.2: Primary education services
-> 85.20: Primary education services
```

| Detail |
|--|
| Code: 85.20.1 |
| Description: Primary education services |
| This item includes: This category includes: - educational services provided at ISCED Level 1, which includes programmes designed to provide students with an initial basic education in reading, writing and mathematics along with an elementary understanding of other subjects such as history, geography, natural science, social science, art and music |
| This item also includes: This category also includes: - services related to the provision of special education programmes at this educational level - services related to the provision of literacy programmes for adults at this educational level |

Figure 10: Into the Primary Education Services Sub-items (Ramon, 2008)

2.5.2 International Standard Classification of Education (ISCED)

| ISCED 2011 |
|---|
| ISCED 0: Early childhood education ('less than primary' for educational attainment) |
| ISCED 1: Primary education |
| ISCED 2: Lower secondary education |
| ISCED 3: Upper secondary education |
| ISCED 4: Post-secondary non-tertiary education |
| ISCED 5: Short-cycle tertiary education |
| ISCED 6: Bachelor's or equivalent level |
| ISCED 7: Master's or equivalent level |
| ISCED 8: Doctoral or equivalent level |

Table 1: ISCED levels 2011 (UNESCO Institute for Statistics, 2012)

As observed in the NACE list and its “Statistical Classification of Products by Activity”, there are references that match educational services and ISCED levels. This happens because of existing sub-sections that describe these levels, such as their principal characteristics or classification criteria.

According to the UNESCO Institute for Statistics and Eurostat, we have to do with a more encoded form of the educational levels, which has changed after 2013 enriched with changes and improvements. Therefore, the following table includes ISCED levels, as the UNESCO Institute for Statistics shows. According to the same source, these are described by the following sub-sections, and some of them are perceived at multiple ISCED levels.

First, “*Principal characteristics*” can determine the educational programs’ targets, their organization, and the criteria needed for students to become part of their kind of educational level. Next, “*Classification criteria*” can specify how the education programs are classified using main and sub-criteria. The “*Programs spanning ISCED levels*” can produce more

classification guidelines for these education programs that overstep the one ISCED level. Furthermore, as soon as the “*Complementary dimensions*” sub-section exists, the different types of educational programs’ characteristics can be determined, depending on the educational program's orientation, level of completion, or access to higher education ISCED levels. The 5th sub-section concerns “*Other programs included in ISCED level*” and indicates less specific education programs, which are considered equivalent to the main ISCED classified programs (without having all the necessary classifications). In addition, the 6th sub-section, “*Classification of educational programs*”, provides detailed codes for the ISCED-P levels and their categories and subcategories, all attributed to educational programs.

Finally, the last sub-section pertains to the “*Classification of the educational attainment*”. First of all, this provides codes for ISCED-A levels¹ and its sub-categories that are assigned to educational programs and indicates these cases that the educational qualification will need to be classified into a different ISCED-A level than an ISCED-P level of the relevant education program² through which the classification is usually obtained (UNESCO Institute for Statistics, 2012; Eurostat, *Statistics explained*, 2022).

2.5.2.1 ISCED in OECD Countries

According to OECD, there is a manual for educational programs classification named ISCED-97. Although setting all their minor differences is unnecessary, it is good to know that ISCED-97 is a bit more complex and outdated than ISCED 2011. According to Eurostat, the most significant and generic difference between them is shown in Figure 12.

| ISCED 2011 (data from 2014 onwards) | ISCED 1997 (data up to 2013) |
|--|---------------------------------|
| ISCED 01 | - |
| ISCED 02 | ISCED 0 |
| ISCED 1 | ISCED 1 |
| ISCED 2 | ISCED 2 |
| ISCED 3* | ISCED 3 |
| ISCED 4* | ISCED 4 |
| ISCED 5 | |
| ISCED 6 | ISCED 5 |
| ISCED 7 | |
| ISCED 8 | ISCED 6 |

Figure 11: Differences and slight changes (UNESCO Institute for Statistics, *Statistics explained* 2022)

The reason for mentioning ISCED 1997 & 2011 level differences (asterisks are about slight changes) is because of the proposed allocation of national educational programs that are found and are based on ISCED-97, containing all the OECD countries (counting Greece). This national educational program classification of Greece spans the entire spectrum of Greece’s education, from kindergarten to Ph.D. Therefore, the table below seems compressed and

¹ ISCED-A is for “educational attainment”.

² Most of the codes among these two (ISCED-P & ISCED-A) are similar but this does not mean that there are no exceptions.

slightly transformed to achieve staying focused on the big picture despite its size. Note that levels “0-6” represent ISCED-97, ISCED levels with the A-B-C sign designed to define terms for students that are about to attend the next educational program or get ready for direct labor market entry, “G” in program orientation means “General” and “V” denotes “Vocational” (UNESCO Institute for Statistics, 2012; Eurostat, *Statistics explained*, 2022).

| ISCED-97 levels | Program Orientation | Cumulative duration at ISCED 5 | National degree position | Descriptive name of the Program | Main diplomas |
|-----------------|---------------------|--------------------------------|--------------------------|--|-----------------------------------|
| 0 | | | | Kindergarten | |
| 1A | G | | | Elementary school | Degree/Diploma |
| 2A | G | | | Gymnasium (lower secondary) | High School Diploma |
| 3C | V | | | Technical-Vocational training institutes (TEE 1998) | Bachelor’s Degree |
| 3A | G | | | Comprehensive Lyceum (High school) | National High School Diploma |
| 4C | V | | | Institute of vocational training (upper secondary education) - IEK | Vocational training Certification |
| 5B | | Medium | 1 st | Technological education institution (non-university type)-TEI | Bachelor’s Degree |
| 5A | | Medium | 1 st | Extended university programs | Bachelor’s Degree |
| 5A | | Medium | 1 st | University-type institution (AEI) | Bachelor’s Degree |
| 5A | | Long | 1 st | (Hellenic Open University) | Bachelor’s Degree |
| 5A | | Long | 2 nd | Post-graduate studies (Master) | Master’s degree |
| 6 | | | | Post-graduate studies (Doctorate) | PhD |

Table 2: Table for Greek ISCED-97 levels (UNESCO Institute for Statistics, *Statistics explained*, 2022)

The original table also contains more information about the students’ ages per program, their total time spent for each, and a few statistics from 1995-96 program enrollments. Finally, it sets relevant information that matters for the aim of the educational programs.

2.5.3 World Bank Sector - Taxonomy and Definitions

World Bank Sector taxonomy specifies agricultural, economic, health, social protection, and more sectors. As in NACE, World Bank Sector uses ISCED levels classification. For example, “Early Childhood Education” corresponds to the ISCED level 0, “Primary education” to level 1, and so on, for all nine levels. However, when we observe the “Public Administration – Education (EF) field” of the World Bank Sector, we notice that this same field does not exist in the NACE taxonomy. This field’s definition comes from Bumgarner, who clarifies that “Public Administration – Education” refers to mostly central government activities, such as “*education policy development, institutional capacity building, sector assessments/research, human resources management, school consolidations, and public-private partnerships*” (p. 9) activities that reflects that field more accurately (Bumgarner, 2017).

In addition, according to Bumgarner, some examples of this field’s encoded activities are:

| | | |
|--|---|---|
| 1) Development of: Education policies, strategies, legislation, and/or regulations | 2) Human resources management and management information systems for the education sector | 3) Reorganization of school structure/school consolidation |
| 4) Public-private partnerships in education administration | 5) Facilities and equipment for edu- cation administration | |

Table 3: Public administration - education field's activities (Bumgarner, 2017).

2.5.4 Classification of the Functions of Government – (Glossary)

Following a corresponding pattern as other taxonomies do, COFOG cares about the “Organization for Economic Co-operation and Development” and classifies the purposes of government activities, using three levels of detail, named “divisions”, “groups”, and “classes”. As in Eurostat, divisions of COFOG describe the government’s broad activities, while groups and classes can define the means of all the broad and achieved objectives. Eventually, there are ten divisions for the government’s broad goals. These are the (1st) *General public services/* (2nd) *Defense/* (3rd) *Public order and safety/* (4th) *Economic affairs/* (5th) *Environmental protection/* (6th) *Housing and community amenities/* (7th) *Health/* (8th) *Recreation, culture and religion/* (9th) *Education* and (10th) *Social Protection* (Eurostat, *Glossary: Classification of the functions of government (COFOG) 2022*).

2.5.5 SOLO and Blooms’ Taxonomy

Generally speaking, there is an excellent variety of taxonomies for different domains, and the education-related is no exception for those who want to describe things related to that field. For instance, the SOLO taxonomy marks how a learner keeps obtaining skills and increasing his performance in different subjects.

According to Bin (2017), SOLO possesses five hierarchical levels that classify students’ learning outcomes. (1st) “*Pre-structural*” gives the learner information about a subject he may not know about as he keeps trying and failing. The (2nd) “*Uni-structural*” reflects a learner’s reaction who focuses on multiple common field aspects that can now discuss at a primary level. The (3rd) one, “*Multi-structural*”, corresponds to the student who can focus and

discuss independently without developing relationships between subjects, and the (4th) “*Relational*”, focuses on the student who now can link common data and subjects and can also apprehend them as a whole. Finally, the (5th) one is the “*Extended abstract*”, which shows that the learner can now combine data from different subjects and sources, create relationships among them, and implement new ideas, perspectives, hypotheses creation, criticism, and even theories establishment.

Subsequently, the author focuses on some specialists who support that there are upcoming benefits for a business or administrative part of higher education when they build a value chain on their own, as they push up to future investigations using five elements. (1st) “Inbound Logistics” contain students, teachers, and other resources, (2nd) “Operations” that includes student learning and teaching specialists, research, or consultancy. (3rd) “Outbound logistics” includes collecting, storing, and distributing the higher education outputs and classifying parts as Market-ready students, competent teaching, or researchers. (4th) “Marketing” focuses on brand development and advertising, and also the (5th) element of “Services” in higher education for managing alumni or recruiter relations. Finally, they also mention that making the right decisions for an educational institution needs a Decision Support System (DSS). A support system of that kind includes information about Administrative Data such as personal information of all the staff and faculty, employees, students, or other kinds of members (Bin et al., 2017).

On the other hand, there is also Bloom’s taxonomy. According to Anderson-Krathwohl, taxonomies provide organizational schemes allowing teachers and students to achieve their educational goals. To succeed in that, it is necessary to use categorical schemes – frameworks that will help with these goals’ classification as they provide a common language that connects the subject matter with the grade levels. Also, according to Krathwohl, this kind of “*framework*” demonstrates a tool that facilitates the exchange of test items among faculty at various universities. In this manner, universities can use taxonomies and frameworks to create banks of items to help society with the success of their educational objectives (Anderson & Krathwohl, 2001; Krathwohl, *A revision of Bloom's Taxonomy: An Overview* 2002; Krathwohl & Anderson, 2022).

As in SOLO taxonomy, Bloom’s one considers six categories of what specialists describe as “*the cognitive processes of learning*”, as Figure 12 demonstrates.

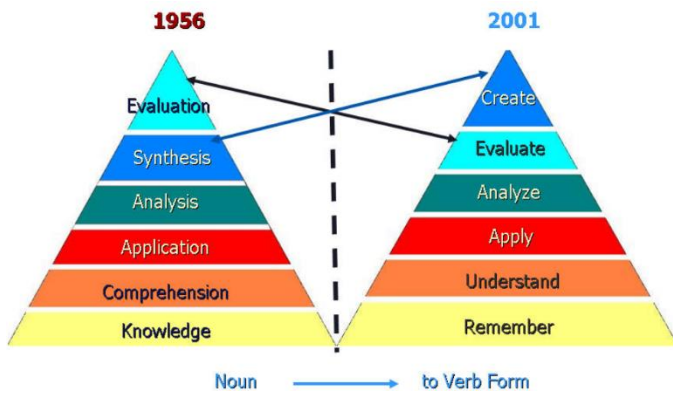


Figure 12: Bloom's revised taxonomy (Wilson, 2020).

By passing Bloom's taxonomy primary structure (the older one), we end up with what applies today. The “Remember” category sets up questions about the students’ sufficiency in information recalling, while the “Understanding” one defines their ability to explain ideas or concepts during the educational process.

Then is the “Apply”, which asks about students’ ability to use information in another new way instead of just understanding them. After that, the “Analyze” category asks students to distinguish parts of broken concepts and materials they have. Next is the 5th field of “Evaluating”, which is wondering if the student can make any judgment based on information and criteria. Finally, the 6th field corresponds to “Creating” new products or points of view as he combines different elements to produce something new (Overbaugh & Schultz, n.d.; Wilson, 2020).

In conclusion, Athanassiou et al. (2003) stated that Bloom’s taxonomy could be considered efficient, as it increases the administrative complexity and, as a result, the school faculty’s managerial skills.

2.5.6 Another Framework for a Taxonomy of Schools

Van Ryzin seeks to develop a more complex school classification system (2014). They follow a process to build a descriptive framework that captures a necessary learning model and ensures students’ efficiency and control of the school environments and their administrative sector. In addition, they expose the need for facilities and resources, assuring the added impact on students’ safety and performance. More specifically, the “Administration” part contains the fields of School management, Teacher development, Student involvement, Parental Involvement, and Measuring success. In addition, each one has a table with variables like “Name”, “Variable Type”, “Description”, and “Relevant References” fields.

The “School Management” table includes the (1st) “External Affiliation”, (2nd) “School Autonomy”, and (3rd) “School Leadership” names of its related variables:

- “External Affiliation” is characterized as “*Categorical*” and sets the description for its four categorical external affiliations the “independent”, “District”, “Non-profit” and “For-profit”.
- “School Autonomy” is attributed as “*Dichotomous*” and includes “Budget”, “Pedagogy”, and “Staffing” details in the description
- “School Leadership” sets and describes terms like “*Administrator – dominant*”, “*Distributed leadership*”, “*Senior teacher with administrator*”, and “*Teacher professional practice*”, as it describes the existing classes of School Leadership in the School management variables.

In conclusion, we observe a taxonomy – categorizing the administrative part of School management- in a conceivable table whose depiction comes from our author’s effort (Van Ryzin, 2014).

3. “Teaching staff” taxonomy development & methodology

According to Merriam-Webster, methodology refers to the various methods, rules, or principles used in a particular field to establish a standard procedure for each area of operation. (‘Methodology’). The upcoming section presents a methodology adopted from the EU ISA2 program that guided us in constructing our taxonomy for the "Teaching Staff" entity, which is illustrated in the following chapters.

3.1. Scope and Goal

Before analyzing each methodology step down this thesis and explain in exact the way we implementing them on our taxonomy built, it is good to set the scope and goal of this chapter. More specifically, writing those, we aim to share a common understanding of teaching and staff-related information among people, and also the Greek Ministry of Education that surely is interested in it. Furthermore, we aim to complete a domain’s hierarchical structure to represent and describe what a taxonomy of its kind is (i.e., a classification of concepts). Therefore, obtaining a first understanding of our domain’s case study information should be considered the first step for a future ontology structure; This will shape a formal and standardized

knowledge representation/graph. Afterward, knowledge representations come with data interoperability in the general “concept” of the RDF’s world. This means that a taxonomist can access and process data and then integrate them, either homogeneous or heterogeneous (*Data Interoperability Collaborative*, 2017; Noy & McGuinness, 2001; Tomaszuk & Hyland-Wood, 2020).

By the end of this taxonomy-built sequence of processes, the entities and relationships should be able to operate as a taxonomy base for any further and relative to the domain applications (as is the “teaching staff management”). For us, “Teaching staff” taxonomy entities should be a base for at least a group of application subjects. For example, we consider teachers’ recruitment, onboarding, school assignment³, development and training, and rewarding⁴ or teaching staff retirement (Manina, 2023; UNM School of Medicine).

In brief, the following sub-chapters are presenting a taxonomy that developed to shape and analyze Greek Primary and Secondary Education's “Teaching staff” entity. Subsequently, a step-by-step methodology guide unfolds. This guide includes all the previously referenced sources, the European taxonomy for public services, its guidelines and good practices, and the taxonomy analysis from “Ontology Development 101”, a Protégé made source. These three will form a helpful guide for future taxonomists. Furthermore, they will create a stable basis for any subsequent application development based on the “Teaching staff” life cycle and its educational management (Noy & McGuinness, 2001).

3.2. Developing methods based on

According to PwC EU Services, there are five different starting lines for a taxonomy to be built. The first expresses a scenario of using/reusing an existing taxonomy to fill the taxonomist’s needs. The second develops a brand-new taxonomy, while the third implements a current taxonomy extension plan. Finally, the fourth and fifth ones allow a taxonomist to integrate either homogenous or heterogenous taxonomies by combining similar or different domains. By the end of “starting lines”, taxonomists are awarded that the final “taxonomy product” should meet the requirement needs of usability, structure, exhaustiveness, and granularity that had

³ "School assignment" can impact a teacher's performance as it properly exploits the knowledge and capabilities of the teacher.

⁴ "Rewarding" promotes teaching staff retention through competitive salaries, opportunities, or other kinds of benefits that reward teachers for their great job.

previously been set. In any case, taxonomists should be aware of the pros and cons. For example, reusing an existing taxonomy can reduce costs, needs, effort, interoperability characteristics, and similarities between taxonomies. At the same time, its cons can include issues associated with terms' identification, familiarity, translation and formatting, and even integration and maintenance issues. Finally, considering the PwC EU Services methodology steps, it is becoming evident that they examine reusing existing taxonomies and lists of public services already existing in Europe's "market" or abroad (PwC EU Services, 2019).

3.3. Methodology analysis

According to PwC EU Services, Figure 13 represents a taxonomy's development process considering reusing existing ones, as in the EU ISA² program (2019).

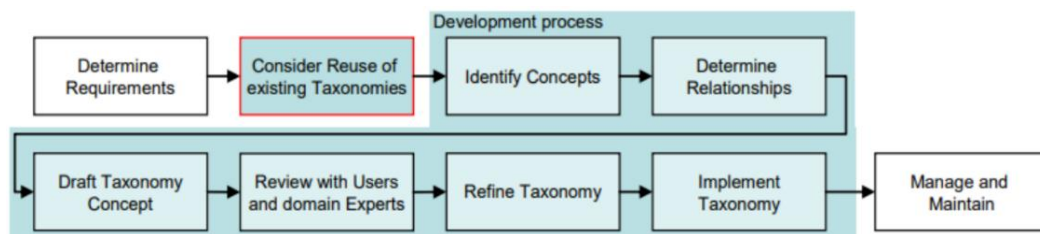


Figure 13: Development process of a taxonomy according to PwC (PwC EU Services, 2019)

3.3.1. Determine requirements

As a first step to this sequence, PwC EU Services methodology sets us to determine requirements. Right after, every taxonomist sets a few questions for his taxonomy, its objectives, scope, its intended use, and user groups and also covers who is about to maintain the taxonomy structure. In our case for example, we first attempted to answer questions about our taxonomy's purpose, objectives, scope, or future use. Once we set them up, we recorded a few rules based on methodology steps that would determine our final taxonomy result (Fraunhofer ISST, 2009).

- 1) First of all, according to Noy & McGuinness (2001), *“there is no one correct way to model a domain – there are always viable alternatives”* (p. 4). This almost always depends on the taxonomist's future applications.
- 2) After that, class hierarchy represents a “is a kind of” generalization relation. This means that one class(1) can be a subclass of another one (class(2)) if each of its instances is also an instance of the second class (class(2)). After that, class hierarchy represents a “is a kind of” relation of generalization. This means that one class(1) can be a subclass

of another one (class(2)) if each of its instances is also an instance of the second class (class(2)). For example, our developed taxonomy case includes classes as is the “Kindergarten teacher (Branch PE-60)”, which necessarily is a “1.Primary education teacher” (sub-class for a super-class). Therefore, the “Kindergarten teacher (Branch PE-60)” class is a subclass of the “1.Primary education teacher” class.

- 3) Furthermore, it is stated that if “B” is a subclass of “A” and “C” is a subclass of “B”, then “C” is a subclass of “A” and that all the hierarchy siblings except the one on the root must have the same level of generality as this corresponds to the user’s intuitive expectations. Moreover, taxonomy classes with one direct subclass are considered a design issue and may cause incomplete taxonomies. In addition, there may be an issue with the class sub-classes as they may exceed twelve as the taxonomy is constructed. Therefore, this is the time to create a few sub-categories instead of preserving larger-scale taxonomy terms by adding additional intermediate categories to fit the taxonomy requirements. Besides the above, another provision states that we should represent concepts as classes whenever concepts form a natural hierarchy. Last but not least, the taxonomy should not contain less or more information about a domain as it is unnecessary for it to be more or less generalized/specialized. Also, there is no need for an ontology to contain all the possible properties and distinctions among the taxonomy classes in the hierarchy. Finally, our taxonomy will be linked to a data model (ESCO in our case) and follow a rule for no duplicating services in the taxonomy as the reality is what we try to imprint (Noy & McGuinness, 2001; PwC EU Services, 2019).

After all, it is becoming evident that determining taxonomy requirements is helping us set the first directive rules that bring us to a stable taxonomy result throughout this iterative development process a taxonomy and ontology requires (Noy & McGuinness, 2001).

3.3.2. Consider reuse of existing taxonomies

In this step, we considered, as any other taxonomist in a similar case, the benefits of reusing an existing taxonomy to save time and resources on identifying, translating, formatting, integrating, and maintaining taxonomy terms. In brief, a taxonomist collects plenty resources to cover his informational needs for his taxonomy domain. In case of the PwC EU Services,

they made use of “SEMIC.EU⁵”, part of the DCAT-AP vocabulary⁶ and also lists and resources as “the EU (ESD), Iran’s INEAF, and Global (GEA)” that helped them shape their taxonomy terms.

In our taxonomy development below in this thesis, we gained profit from Greek laws and lists that helped us form a reality-based taxonomy structure and terms. We also made use of the top-down and bottom-up approaches that helped us categorize our taxonomy terms. It is fortunate that our Teaching staff for the Greek Primary and Secondary Education taxonomy was successfully built using the chosen lists and approaches. (PwC EU Services, 2019).

More specifically, we considered for our taxonomy development to reuse existing taxonomies to gain the profit we considered. As far as we are concerned, we have searched for a taxonomy and classification system that applies to our taxonomy case study and its educational part (as NACE does), containing the P.85 division of taxonomy. We also created the first taxonomic structure as a taxonomy base. This has been formatted, making facets, sub-facets, classes, sub-classes, and columns in an excel format as the PwC EU Services taxonomy methodology source instructed us (2019). This led us to imprint the existing compatibility among its terms, which was based on the ESCO ontology/data model⁷, by focusing on its occupation pillar concept. As a result, human and machine-readable forms of the taxonomy that could be used from taxonomists as a taxonomy base of discussions arose, while machine-readable ones helped us with the taxonomy interoperability. Thus, NACE⁸ mostly stood for our taxonomy hierarchy, while ESCO⁹ formatted its terms (Fraunhofer ISST, 2009; PwC EU Services, 2019; Smedt, n.d.).

After that, we derived from Greece’s law lists terms, such as “School upgrading, teacher empowerment and other provisions” and “Structure and operation of primary and secondary

⁵ SEMIC.EU stands for the Semantic Interoperability Centre Europe. It was initiated by the European Commission as an eGovernment service to develop solutions that generally help EU public administrations

⁶ DCAT-AP vocabulary (Application profile for data portals in Europe) is a metadata specification for European data portals. It promotes interoperability with other applications by reusing established vocabularies like EuroVoc and mapping to existing metadata standards (*DCAT application profile for Data Portals in Europe (DCAT-AP)* (n.d.))

⁷ An ontology data model like ESCO, can be used to create knowledge graphs (Smedt, n.d.).

⁸ NACE taxonomy provides a framework for collecting and presenting a wide range of statistical data for economic activities. Whoever uses it can gain profit, using its hierarchy as a guidebook for its taxonomy construction (Eurostat, 2022)

⁹ ESCO ontology stands for European Skills, competencies, and qualifications and is useful for reusing it to construct a more complete taxonomy/ontology (Smedt, n.d.).

education and other provisions” from the law 1566/1985 and 4823/2021¹⁰ as well. We also compared and merged them with the ESCO ones. This resulted in three categories of terms. The first category directly uses the primary or secondary ESCO terms, acquiring a light-pink highlight color that preserves the fact that nobody will mistake them. The second category includes modified ESCO terms, equated to our law lists standards of terms and meanings; this acquires orange color, while the rest of the taxonomy terms (third category) have been selected exclusively from the pre-mentioned Greek law lists. Finally, the last category encloses a “parthenogenesis” procedure for his term’s creation. It is mentioned using blue, stating its irrelevancy with the ESCO ontology data model or any other. These are briefly represented below by the following individual part of our taxonomy built (Figure 14) (Law 1566/1985; Law 4823/2021, article 4).

These three categories include all the realistic Greek Primary and Secondary Education terms. Moreover, PwC EU Services states, *“If no natural classes exist to group concepts, there is no need to create artificial classes, as the ontology is a reflection of the real world”* (2019). Based on that, taxonomists will avoid creating artificial terms and meanings that do not present the real world’s reflections (and so we do). In conclusion, the steps above lead us also to reuse existing taxonomies and ontologies. They also help stabilize our taxonomy structure and make us think of the benefits of this logic. A few benefits are the taxonomy terms’ identifications, the familiarity between them, their translation or formatting, and the future data integration and maintenance of the taxonomy terms.

¹⁰ We managed to carefully extract the information and terms from Greek law lists to ensure the accuracy of our taxonomy terms. We chose those two Greek law lists, considering a real-case scenario taxonomy development based on their governmental origin. This one will later examine Greek primary and secondary educational management.

| | | | |
|---|---|--------------------------------------|---|
| Higher Education Branch (PE) -Secondary Education Specializations | | | |
| | Religious teacher (Branch PE-01) | | "Theologian (Branch PE-01)" that results from Greek reality, is being modified into "Religious education teacher", by directly using the 3rd Alternative ESCO term of the "2330.1.17 - religious education teacher at secondary school" |
| | Philosophy teacher (Branch PE-02) | | "Philosophy education teacher (Branch PE-02)" that results from Greek reality, is being modified into "Philosophy teacher", by directly using the 4th Alternative term of the "2330.1.14 - philosophy teacher secondary school" |
| | Mathematics teacher (Branch PE-03) | | "Mathematics education teacher (Branch PE-03)" that results from Greek reality, is being modified into "Mathematics teacher", by directly using the 2nd Alternative ESCO term of the "2330.1.11 - mathematics teacher at secondary school". |
| | Natural sciences teacher (Branch PE-04) | | NO ESCO - Direct use of Greek law lists |
| | | Physics teacher (Branch PE-04.01) | "Physics teacher (Branch PE-04.01)" that results from Greek reality, is being modified into "Physics teacher", by directly using the 2nd Alternative ESCO term of the "2330.1.16 - physics teacher secondary school" |
| | | Chemistry teacher (Branch PE-04.02) | "Chemists (Branch PE-04.02)" that results from Greek reality, is being modified into "Chemistry teacher", after considering the ESCO term "2330.1.4 - chemistry teacher secondary school" by removing its "Secondary school" part which meaning already exists into its subfacet. |
| | | Naturalist teacher (Branch PE-04.03) | NO ESCO - Direct use of Greek law lists |
| | | Biology teacher (Branch PE-04.04) | "Biology teacher (Branch PE-04.05)" that results from Greek reality, is being modified into "Biology teacher", by using the 3rd Alternative ESCO term of the "2330.1.2 - biology teacher secondary school" |
| | | Geology teacher (Branch PE-04.05) | NO ESCO - Direct use of Greek law lists |

Figure 14: This part of the draft taxonomy concept, shows a specific sub-facet, classes, and sub-classes such as the "Higher Education Branch (PE) -Secondary Education Specializations" sub-facet and its relative classes and sub-classes. The list on the right provides the mapping process where we distinguished the way that specific terms of our taxonomy been formatted. We used blue color to declare the direct usage of terms outside the ESCO ontology. We also used orange color to describe that ESCO terms were modified to attach Greek reality terms, and finally, pink color to show the direct selection of ESCO terms or its official relatives that describe the corresponding Greek reality and terms.

3.3.3. Identify concepts

On this step, PwC EU Services methodology led us to use two approaches, the top-down, bottom-up, or even a combination of them; they also set to follow a few best practices to create a high-quality taxonomy. In our taxonomy development we made use of both approaches in a synchronous way. Thus, we combined and analyzed different data sources, and specific practices and principles to ensure that the taxonomy will fulfill our present and future needs and expectations. Furthermore, the identical hierarchy between siblings was necessary, while artificial terms would not fill the gaps. Taxonomy for PwC EU Services case was connected to a data model like CPSV-AP¹¹, and each public service matched a unique user role, theme, or

¹¹ According to Aleksandrova (2019), CPSV-AP (Core Public Service Vocabulary Application Profile) is a data model (as ESCO ontology is) that helps taxonomists to implement a catalog of public services in a public administration domain. It also helps public administrations with their public services interoperability.

pattern. PwC EU Services also used a European framework for this. Rules, tactics, and principles, established the ontology structure for a reliable taxonomy (Marlene, 2010; Noy & McGuinness, 2001; PwC EU Services, 2019; Smedt, n.d.).

In our taxonomy case, this step was implemented as follows. After our concept identification, we used the bottom-up approach and also combined and analyzed our terms' sources (e.g., law lists 1566/1985 and 4823/2021). Furthermore, we applied the top-down approach to map the retrieved patterns and observe elements to develop a high-quality taxonomy. Laws about the organization and management of Greece's education have been used. In essence, we utilized both these lists and laws and also the ESCO ontology and NACE taxonomy. After that, we combined their referred concepts and configured our taxonomy's classes and sub-classes (Fraunhofer ISST, 2009; PwC EU Services, 2019).

3.3.4. Determining relationships

In this step of the methodology, we are formatting the taxonomy concept. According to PwC EU Services, determining relationships is similar to determining the hierarchy of the taxonomy. It is recommended that each taxonomy term should have at least one hierarchical relationship with another term. Therefore, like PwC EU Services, we define relationships between taxonomy terms before determining the hierarchy structure. PwC EU Services presents three types of parent/child relationships in their guidelines and good practices: "whole/part", "genus/species", and "instance" relationships. These relationships allow each taxonomy term to be associated with others and become either a parent or a child term in the taxonomy and ontology structure (Fraunhofer ISST, 2009; PwC EU Services, 2019).

Our approach involves determining the relationships between taxonomy terms/entities. We follow the methodology outlined by PwC EU Services for the synchronous process of relationship and hierarchy determination. To begin, we create a hierarchical structure to identify concepts, which results in a great production of terms. Next, we implement relationships and organize/categorize them in a non-

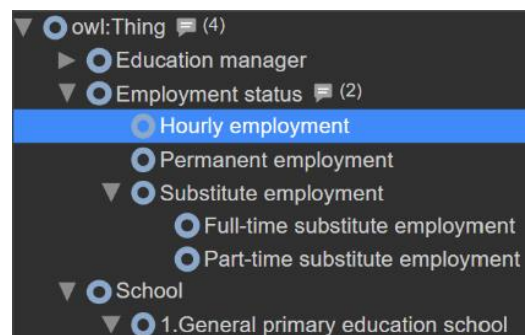


Figure 15: Teaching staff taxonomy part from the inside of the "class hierarchy" WebProtégé environment (Stanford Center for Biomedical Informatics Research, 2015)

excel format. In other words, we use facets/sub-facets¹² like "Type of education," "Employment status," "Branch and specialization," "School type," etc. to create a preliminary shape of our "Teaching staff" entity. We then classify them under a tree-like structure and a broader/narrower hierarchy logic using the whole/part and genus/species types of the "parent/child" relationship. Figure 15 shows a part of this process when we built our taxonomy using WebProtégé. We double-check the hierarchy to ensure the "is-a"/"kind of" primary principle usage. Following Noy & McGuinness (2001), this means presenting a sub-class of a class as a "kind of" concept that coincides with what the class's superclass represents ("is-a" relation). For example, the "Hourly employment" class captures this "kind of" concept in its "Employment status" superclass (Figure 15). By ensuring these principles, we can conclude that our taxonomy has reached an alpha but stable version (Noy & McGuinness, 2001; PwC EU Services, 2019; Musen, 2015).

3.3.5. Draft Taxonomy concept

In order to develop a draft concept and partially classify the taxonomy, it is necessary to use a combination of the bottom-up and top-down approaches. This was the case in the PwC EU Services, where both approaches were utilized for a specific reason. Initially, the bottom-up approach was implemented to find and map processes that corresponded to translated terms of public services and descriptions. The result was a list of 57 generic categories from a total of 227 different public services. Subsequently, their top-down approach produced higher-level lists based on patterns and themes that had been mapped using taxonomies and government portals.

In our case, we utilized the same methodology steps such as "Identify Concepts" and "Determine Relationships" to shape our first stable taxonomy concept for our taxonomy built, which is detailed below in this thesis. We implemented both top-down and bottom-up approaches synchronously to achieve the best results in our taxonomy development. To define the most general concepts in our domain and determine specific terms for our taxonomy, we used lists of laws and terms, NACE taxonomy, and ESCO ontology. After shaping the first kind of our stable taxonomy concept in an excel sheet (Figure 14), we proceeded to the next methodology step (PwC EU Services, 2019).

¹² Following the faceted classification pattern, we make sure that all of our taxonomy domain particles will be able to share their properties between them.

3.3.6. Taxonomy review, refine, and implementation

To ensure a stable and effective taxonomy, PwC EU Services recommends that taxonomists share it with end users and domain experts for review. This includes checking its structural characteristics, language, grammar, punctuation, and singular/plural forms against standards, as we have done in our own taxonomy-building case in this thesis. It's also important to evaluate the stability, usability, completeness, granularity, and multilingualism of the reviewed taxonomy, ensuring equivalent terms in all relevant languages. Following these guidelines ensures a thorough review process and refinement before proceeding to the next step of taxonomy implementation. (Fraunhofer ISST, 2009; PwC EU Services, 2019).

For our taxonomy case on Teaching staff in Greek Primary and Secondary Education, we established criteria to refine our structure. Our first step was to simplify our taxonomy into a more easily understandable version (Figure 16).

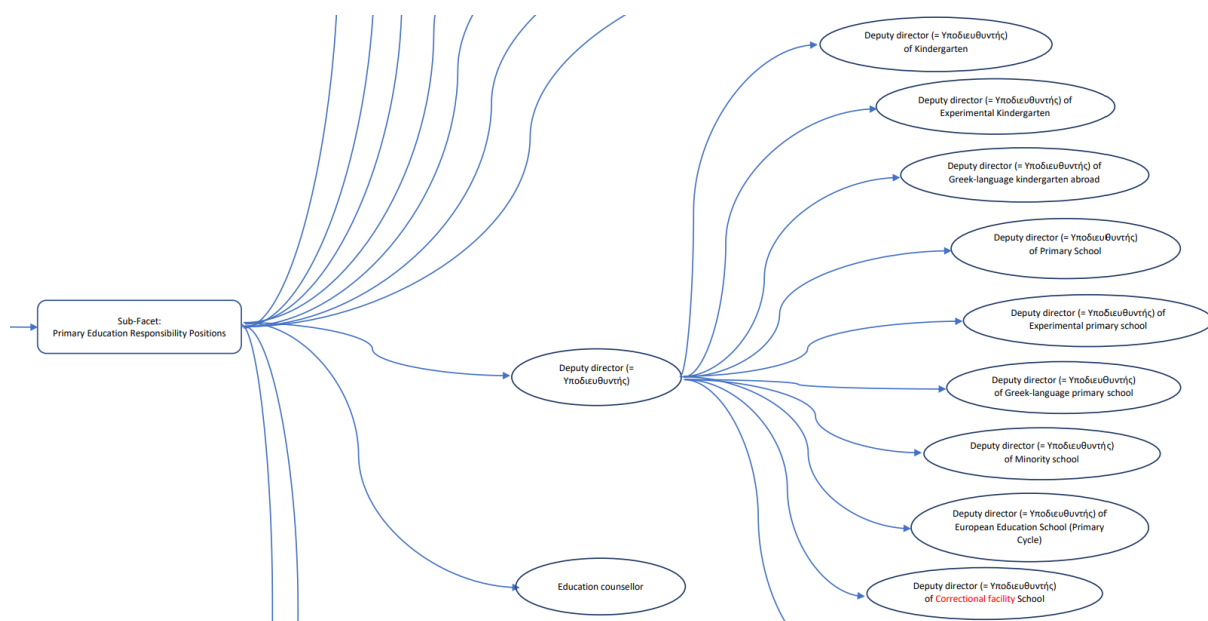


Figure 16: Part of the simplified human-readable version of "Teaching Staff taxonomy"

Next, we shared our term-centric scheme with a European English literature expert to review and suggest any necessary changes to our European English taxonomy terms. This expert had the required knowledge and experience in selecting and editing English terms related to the educational domain we were interested in. We then incorporated her feedback and implemented the final faced taxonomy structure using the WebProtégé tool. We also ensured that our taxonomy terms language results were reconciled and easy to reuse for future taxonomists in their relevant implementations. This required us to consider our criteria for the taxonomy, including usability (by double-checking the taxonomy terms used from law lists and

ESCO ontology) and the completeness and appropriateness of the granularity of the terms, which may be important criteria for future consideration (Fraunhofer ISST, 2009; PwC EU Services, 2019).

Moreover, as part of our methodology, PwC EU Services is putting into action their European classification system for public services, which they explain must be written in a machine-readable language. They utilize an excel format initially, and then incorporate machine-readable languages such as SKOS or OWL to guarantee the reusability of their taxonomy. These languages allow for the data to be formatted in XML or RDF. To complete our own taxonomy implementation step, we utilized an online tool named WebProtégé to import our taxonomy classes and sub-classes and also set their relationships or other attributes. Finally, we extracted the refined taxonomy in a machine-readable format, as demonstrated in the fourth chapter of this diploma where we also describe our taxonomy production, including WebProtégé description and use

3.3.7. Manage and Maintenance

According to PwC EU Services (2019), the final step of the methodology involves managing and maintaining the taxonomy. This is an ongoing process that ensures the terms and relationships remain up-to-date. To achieve this, the taxonomist must continuously update existing terms and add new ones as needed. It may also be necessary to remove unused terms from the end-user's taxonomy. The taxonomist can review the taxonomy logs to determine what changes to make to their terms. Open-source tools and lists can be incredibly useful in keeping up with taxonomies, and the PwC EU Services initiative recognizes this. Unfortunately, this step cannot be implemented in a written thesis, and thus, we will have to skip it for now.

4. WebProtégé application – Taxonomy import

4.1 Introduction

WebProtégé is a collaborative open-source tool for developing ontologies. It supports semantic web languages such as RDF, RDFS, OWL, and XML Schema and can export data using them. Furthermore, WebProtégé also exports in Turtle language, which expresses data

using the RDF data model and provides a very compact syntax style that is easy to read by people interested (Tudorache et al., 2011; Turtle, 2014).

4.2. WebProtégé Environment

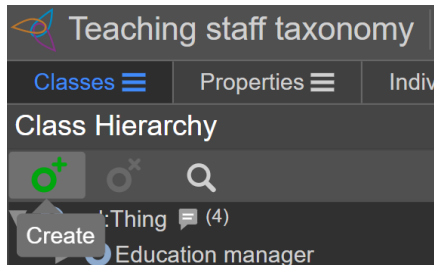


Figure 17: Class creation in WebProtégé class hierarchy field

After pressing the “Create” button (Figure 17), a pop-up window let us write a class name (Figure 18). Then, it redirects us back to the main environment, where we can edit classes’ annotations as their properties and values (Figure 19). Figure 19 presents WebProtégé mid-screen after a class has been chosen. Here we observe classes’ IRI¹³, set classes’ names using “RDFS, and also

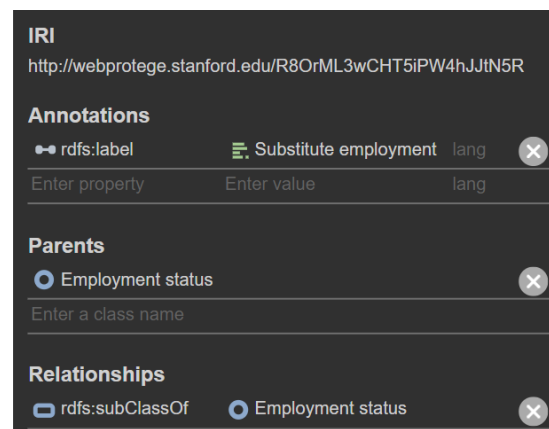


Figure 18: “Create Classes” window in WebProtégé

set parents and relationships. As for taxonomy terms’ relationships, “subClassOf”¹⁴ (which is an RDF instance) relates to the “Parents” field and stands for the class’s superclass. Finally, we can find our classes’ IRI (Figure 19) and an entity graph button for each class (Musen, 2015).

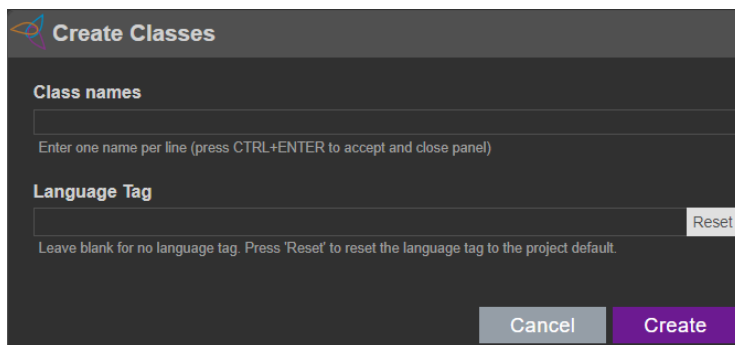


Figure 19: “Details” screen of “Substitute Employment” class

¹³ IRI (Internationalized Resource Identifier) is a string of characters that identifies a resource on the internet, similar to a URL. In ontology, IRI is used to identify and refer to unique entities and concepts within it (World Wide Web Consortium, 2012, Section 2.4).

¹⁴ “subClassOf” instance of RDF, states that class C1 is an instance of rdfs:Class, C2 is an instance of rdfs:Class and C1 is a subclass of C2, while rdfs:subClassOf property is transitive (Brickley, 2014)

Therefore, we consider writing the “Substitute Employment” class name next to the “rdfs:label” annotation; we also declare its super-class (parent class) name as “Employment status”. As for its sub-classes, “Part-time substitute employment” is one of the two sub-classes (Figure 20). To finalize taxonomy class creation, we also define the relationship “rdfs:subClassOf” between those classes that come from the RDFS vocabulary and, as others, “explains how nodes of a graph relate” (World Wide Web Consortium, 2005).

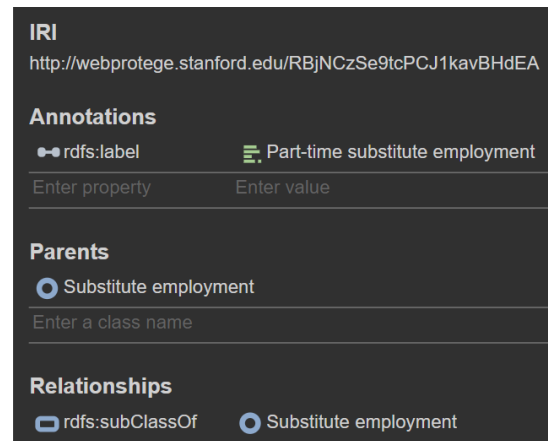


Figure 20: Mid-screen WebProtégé environment; “Part-time Substitute Employment as chosen class

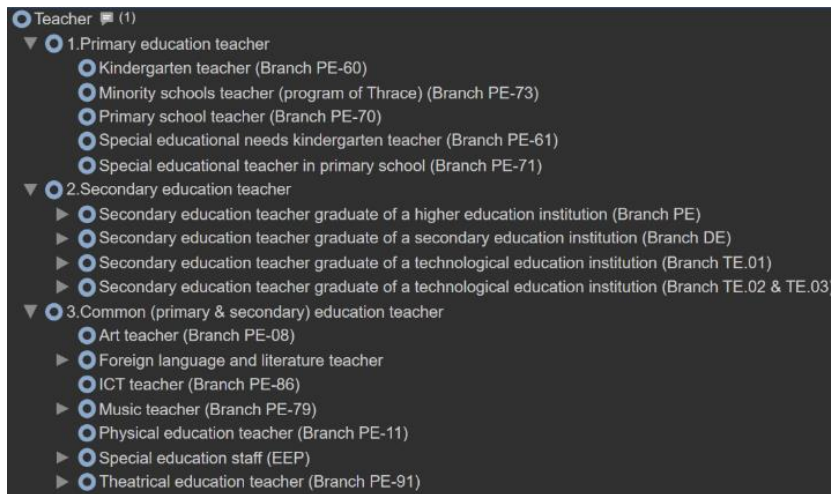


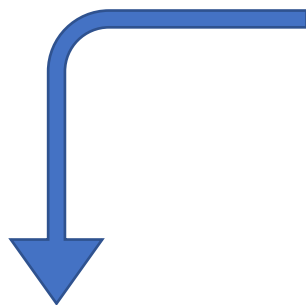
Figure 21: Taxonomy case report, “Teacher” entity

Altogether, we finished including all classes’ names, parents, and the relationships among them; As a result, the “Teaching Staff” taxonomy sums up 241 classes and subclasses. Figures 21-24 present a 2nd level compact version of our taxonomy.

Moreover, it is necessary to mention that beginning with the creation of the classes “Teacher” and “Employment status” was not enough to complete our taxonomy built. There was time to expand our taxonomy contents, adding two more main classes, their sub-classes, and relationships. Thus, “Education manager” and “School” classes arose to complete the taxonomy and stand just a step from the beginning of future ontology development.

- ▼ ○ Education manager
 - ▼ ○ 1.Primary education manager
 - (Primary) education counsellor
 - ▶ ○ Deputy director (= Υποδιευθυντής) of primary education school unit
 - Director of directorate of primary education
 - Educational quality supervisor
 - Experimental primary school principal (= Διευθυντής)
 - Head (= Προϊστάμενος) of the educational affairs department of the primary education directorate
 - Head of educational quality (primary education)
 - ▶ ○ Head of primary education school unit
 - Intercultural education primary school principal (= Διευθυντής)
 - Kindergarten principal (= Διευθυντής)
 - Primary school principal (= Διευθυντής)
 - ▼ ○ 2.Secondary education manager
 - (Secondary) education counsellor
 - ▶ ○ Art school principal (= Διευθυντής)
 - ▶ ○ Deputy director (= Προϊστάμενος) of secondary education school unit
 - Director of directorate of secondary education
 - Head (= Προϊστάμενος) of the educational affairs department of the secondary education directorate
 - Head of educational quality (Secondary Education)
 - ▶ ○ Intercultural school principal (= Διευθυντής)
 - Laboratory centre sector (= τομέας) responsible
 - ▶ ○ Music school principal (= Διευθυντής)
 - ▶ ○ Pilot or experimental school principal
 - ▶ ○ Secondary school principal (= Διευθυντής)
 - ▶ ○ Vocational educational school principal (= Διευθυντής)
 - ▼ ○ 3.Common (primary & secondary) education manager
 - Head of the centre for interdisciplinary assessment, counseling and support (KE.D.A.S.Y)
 - Head of the education centre for the environment and sustainability (K.E.P.A)
 - Regional director of primary and secondary education
 - Regional head of educational quality
 - ▼ ○ 4.Special needs education manager
 - ▶ ○ Special education needs kindergarten manager
 - ▶ ○ Special education needs primary school manager
 - ▶ ○ Special education needs secondary school manager

Figure 22: Taxonomy case report, "Education manager"



- 3.Special needs primary education school
 - Primary school integration department
 - Primary school parallel support
 - Primary school special educational needs
 - Special educational needs kindergarten
- 4.Special needs secondary education school
 - ▶ ○ Special educational needs secondary school
 - Special vocational education laboratories (E.E.E.E.K.)
 - Unified special vocational high school (EN.E.E.GY.L.)

Figure 24: "School" entity classes & sub-classes

- School
 - ▼ ○ 1.General primary education school
 - Correctional facility
 - European school (primary cycle)
 - Experimental kindergarten
 - Experimental primary school
 - Greek-language kindergarten abroad (3)
 - Greek-language primary school abroad (2)
 - Intercultural primary school
 - Kindergarten
 - Minority school
 - Primary School
 - ▼ ○ 2.General secondary education school
 - Art school
 - ▶ ○ Correctional facility
 - European education school (secondary cycle)
 - Minority high school/senior high school
 - ▶ ○ Music school
 - ▶ ○ Pilot or experimental school
 - ▶ ○ Secondary church school
 - ▶ ○ Secondary intercultural school
 - ▶ ○ Secondary school
 - ▶ ○ Vocational school

Figure 23: "School" entity classes & sub-classes

Using WebProtégé to create our taxonomy and set “rdfs:subClassOf” as the relationship between its terms resulted in class hierarchy visualizations of a tree-like shape that are called “Entity Graphs” (Figure 25) (Figure 26).

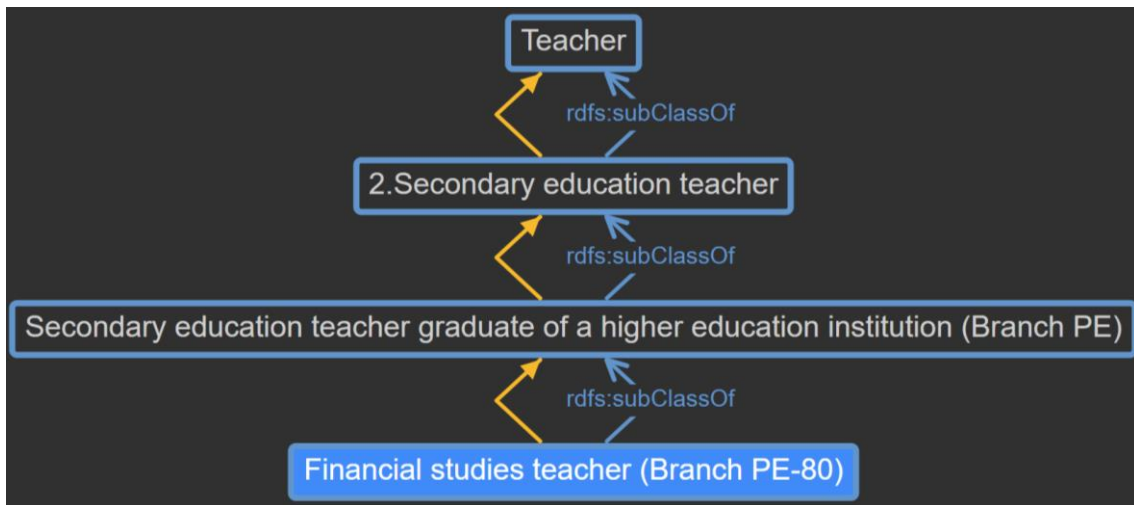


Figure 25: Entity Graph visualization of the “Financial studies teacher (Branch PE-80)” class/entity

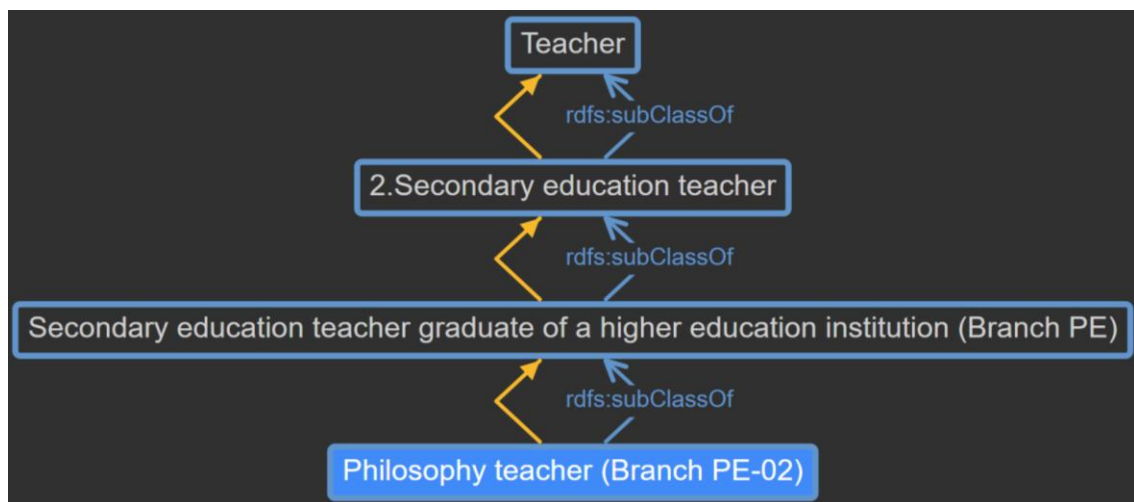


Figure 26: Entity Graph visualization for the “Philosophy teacher (Branch PE-02)” class/entity

5. Conclusions

The main goal of this thesis was to make a valuable contribution to the field of public administration by examining the "Teaching Staff" entity in Greek Primary and Secondary Education and developing a "Taxonomy" for it. To accomplish this, the study began by analyzing taxonomies, ontologies, controlled vocabularies, thesauri, glossaries, and other components of the KOS (Knowledge Organization System) family. After thoroughly studying and comparing these concepts, the research presented essential and specialized cases of organizations or individuals that utilized the tools of classification, organization, description, correlation, and interpretation of knowledge. One important case was ontology, which plays a crucial role in enabling knowledge-based systems to function effectively. The research focused on the governance of "Teaching Staff" in Greek primary and secondary education in the context of "Public Administration," serving as a characteristic example of the capabilities of the tools mentioned above.

In our third chapter, we developed a taxonomy using Europe's ISA2 program methodology as a basis. However, we made some alterations to the methodology to better suit our specific requirements and carefully analyzed it. Our approach followed PwC EU Services' methodology, which involved identifying requirements, reviewing, refining, and implementing the taxonomy for the Teaching staff entity. We dedicated significant effort to accurately identifying, classifying, and establishing relationships between terms used in our taxonomy. To achieve this, we reviewed various standards and laws to gather relevant terms from the real world in our domain, which is Teaching staff in public administration. We initially established a hierarchical tree-like structure in a human-readable format, which made managing our classes and identifying their relationships easier, thereby facilitating control over the taxonomy. Then, in our fourth chapter we integrated the taxonomy into WebProtégé, an ideal program for hierarchically organizing and exporting the taxonomy into a machine-readable format (e.g.: Turtle syntax language).

After implementing the aforementioned steps, it becomes evident that Public Administration could benefit by making use of taxonomies, especially the "Teaching staff" taxonomy, towards managing its human capital. The taxonomies and ontologies used in this process are a source of pride and can be utilized by anyone in the same domain, such as the Greek Primary and Secondary Education governance.

6. Appendices

6.1 Taxonomy in Human-Readable Format

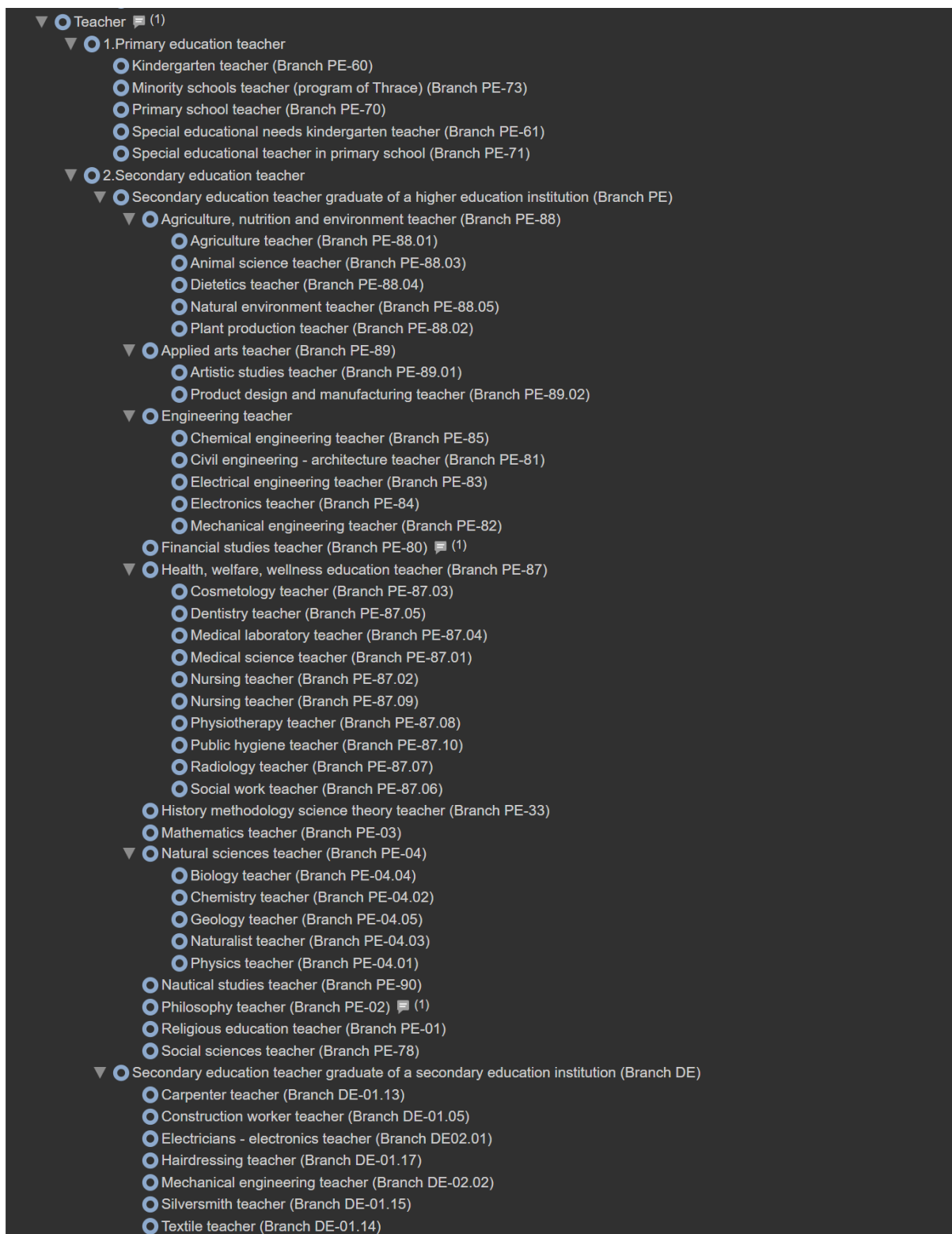


Figure 27 Taxonomy parts in the entire expansion – (Teacher entity) (1)

- ▼ ○ Secondary education teacher graduate of a technological education institution (Branch TE.01)
 - Computer programmers teacher (Branch TE-01.13)
 - Cosmetology teacher (Branch TE-01.20)
 - Dentistry teacher (Branch TE-01.26)
 - Electrician teacher (Branch TE-01.06)
 - Electronics teacher (Branch TE-01.07)
 - Hairdressing teacher (Branch TE-01.19)
 - Medical and biological laboratory assistant teacher (Branch TE-01.29)
 - Medical laboratory technology vocational teacher
 - Nurse and pediatricians assistant teacher (Branch TE-01.30)
 - Radiologist assistant teacher
 - Refrigeration engineering teacher (Branch TE-01.04)
 - Silversmith teacher (Branch TE-01.25)
- ▼ ○ Secondary education teacher graduate of a technological education institution (Branch TE.02 & TE.03)
 - Agriculture teacher (Branch TE-02.07)
 - Applied arts teacher (Branch TE-02.05)
 - Business studies and economics teacher (Branch TE-02.04)
 - Designers - builders teacher (Branch TE-02.01)
 - Engineering teacher (Branch TE-02.02)
 - Laboratory chemist (Branch TE-02.03)
 - Product design and manufacturing teacher (Branch TE-02.06)
- ▼ ○ 3.Common (primary & secondary) education teacher
 - Art teacher (Branch PE-08)
 - ▼ ○ Foreign language and literature teacher
 - English language teacher (Branch PE-06)
 - French language teacher (Branch PE-05)
 - German language teacher (Branch PE-07)
 - Italian literature teacher (Branch PE-34)
 - Spanish literature teacher (Branch PE-40)
 - ICT teacher (Branch PE-86)
 - ▼ ○ Music teacher (Branch PE-79)
 - Music science teacher (Branch PE-79.01)
 - Music technology, audio and musical instrument technologists teacher (Branch PE-79.02)
 - Physical education teacher (Branch PE-11)
 - ▼ ○ Special education staff (EEP)
 - Professional consultants (Branch EEP-22)
 - Speech and language therapist teacher (Branch EEP-21)
 - ▼ ○ Theatrical education teacher (Branch PE-91)
 - Drama teacher (Branch PE-91.02)
 - Theatre studies teacher (Branch PE-91.01)

Figure 28 Taxonomy parts in the entire expansion – (Teacher entity) (2)

- ▼ ○ Education manager
 - ▼ ○ 1.Primary education manager
 - (Primary) education counsellor
 - ▼ ○ Deputy director (= Υποδιευθυντής) of primary education school unit
 - Deputy director (= Υποδιευθυντής) of correctional facility school
 - Deputy director (= Υποδιευθυντής) of european education school (primary cycle)
 - Deputy director (= Υποδιευθυντής) of experimental kindergarten
 - Deputy director (= Υποδιευθυντής) of experimental primary school
 - Deputy director (= Υποδιευθυντής) of greek-language kindergarten abroad
 - Deputy director (= Υποδιευθυντής) of greek-language primary school abroad
 - Deputy director (= Υποδιευθυντής) of intercultural primary school
 - Deputy director (= Υποδιευθυντής) of kindergarten
 - Deputy director (= Υποδιευθυντής) of minority school
 - Deputy director (= Υποδιευθυντής) of primary school
 - Director of directorate of primary education
 - Educational quality supervisor
 - Experimental primary school principal (= Διευθυντής)
 - Head (= Προϊστάμενος) of the educational affairs department of the primary education directorate
 - Head of educational quality (primary education)
 - Head of educational quality (primary education)
 - ▼ ○ Head of primary education school unit
 - Head (=Προϊστάμενος) of experimental kindergarten
 - Head (=Προϊστάμενος) of experimental primary school
 - Head (=Προϊστάμενος) of kindergarten
 - Head (=Προϊστάμενος) of primary school
 - Intercultural education primary school principal (= Διευθυντής)
 - Kindergarten principal (= Διευθυντής)
 - Primary school principal (= Διευθυντής)
 - ▼ ○ 2.Secondary education manager
 - (Secondary) education counsellor
 - ▼ ○ Art school principal (= Διευθυντής)
 - Art high school (Gymnasium) principal
 - Art senior high school (Lyceum) principal
 - ▼ ○ Deputy director (= Προϊστάμενος) of secondary education school unit
 - Deputy director (= Υποδιευθυντής) of a church high school / senior high school
 - Deputy director (= Υποδιευθυντής) of a european education school (secondary cycle)
 - Deputy director (= Υποδιευθυντής) of a european education school (secondary cycle)
 - Deputy director (= Υποδιευθυντής) of a general senior high school (Lyceum) - (=Γενικό λύκειο)
 - Deputy director (= Υποδιευθυντής) of a high school - (Gymnasium)
 - Deputy director (= Υποδιευθυντής) of a laboratory centre - (E.K)
 - Deputy director (= Υποδιευθυντής) of a minority high school / senior high school
 - Deputy director (= Υποδιευθυντής) of a music high school/ senior high school - (Gymnasium/ Lyceum)
 - Deputy director (= Υποδιευθυντής) of a pilot or experimental high school/ senior high school - (Gymnasium/ Lyceum)
 - Deputy director (= Υποδιευθυντής) of a vocational high school (EPA.L.)
 - Deputy director (= Υποδιευθυντής) of an art high school/ senior high school - (Gymnasium/ Lyceum)
 - Deputy director (= Υποδιευθυντής) of an intercultural education high school/ senior high school - (Gymnasium/ Lyceum)
 - Director of directorate of secondary education
 - Head (=Προϊστάμενος) of the educational affairs department of the secondary education directorate
 - Head of educational quality (Secondary Education)
 - ▼ ○ Intercultural school principal (= Διευθυντής)
 - Intercultural education high school (Gymnasium) principal
 - Intercultural education senior high school (Lyceum) principal
 - Laboratory centre sector (= τομέας) responsible
 - ▼ ○ Music school principal (= Διευθυντής)
 - Music high school (Gymnasium) principal
 - Music senior high school (Lyceum) principal
 - ▼ ○ Pilot or experimental school principal
 - Pilot or experimental high school (Gymnasium) principal
 - Pilot or experimental senior high school (Lyceum) principal
 - ▼ ○ Secondary school principal (= Διευθυντής)
 - General high school (Gymnasium) principal (=Γενικό Γυμνάσιο)
 - General senior high school (Lyceum) principal (=Γενικό Λύκειο)

Figure 29 Taxonomy parts in the entire expansion – (Education manager entity) (1)

- ▼ Vocational educational school principal (= Διευθυντής)
 - Laboratory centre (E.K.) principal
 - Vocational high school (EPA.L.) principal
- ▼ 3.Common (primary & secondary) education manager
 - Head of the centre for interdisciplinary assessment, counseling and support (KE.D.A.S.Y)
 - Head of the education centre for the environment and sustainability (K.E.P.A)
 - Regional director of primary and secondary education
 - Regional head of educational quality
- ▼ 4.Special needs education manager
 - ▼ Special education needs kindergarten manager
 - Deputy director (= Υποδιευθυντής) of special kindergarten
 - Head of special kindergarten
 - Special kindergarten principal
 - ▼ Special education needs primary school manager
 - Deputy director (= Υποδιευθυντής) of special primary school
 - Head of special primary school
 - Special needs primary school principal
 - ▼ Special education needs secondary school manager
 - Deputy director (= Υποδιευθυντής) of a unified special vocational high school / senior high school (EN.E.E.GY.L.)
 - Deputy director (= Υποδιευθυντής) of special needs high school principal
 - Deputy director (= Υποδιευθυντής) of special needs senior high school principal
 - Deputy director (= Υποδιευθυντής) of special vocational education laboratories (E.E.E.EK.)
 - Principal of a unified special vocational high school / senior high school (EN.E.E.GY.L.)
 - Special needs high school principal
 - Special needs senior high school principal
 - Special vocational education laboratories principal (E.E.E.EK.)

Figure 30 Taxonomy parts in the entire expansion – (Education manager entity) (2)

- ▼ Employment status (1)
 - Hourly employment
 - Permanent employment
 - ▼ Substitute employment
 - Full-time substitute employment
 - Part-time substitute employment

Figure 31 Taxonomy parts in the entire expansion – (Employment status entity)



Figure 32 Taxonomy parts in the entire expansion – (School entity)

6.2 Taxonomy in Machine-readable format

Below is the entire taxonomy of the “Teaching staff” entities, exported from WebProtégé. Turtle is the language we selected because of its smaller size. Initially, Turtle language presents the existing properties of the taxonomy annotations, objects, and the following classes.

```
@prefix : <urn:webprotege:ontology:546b391a-173c-4498-8ee5-518889cfcf84#> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix xml: <http://www.w3.org/XML/1998/namespace> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@base <urn:webprotege:ontology:546b391a-173c-4498-8ee5-518889cfcf84> .

<urn:webprotege:ontology:546b391a-173c-4498-8ee5-518889cfcf84> rdf:type owl:Ontology .

#####
# Annotation properties
#####

### http://webprotege.stanford.edu/R9BZWiG1gDjbpYFHxzwG6q3
<http://webprotege.stanford.edu/R9BZWiG1gDjbpYFHxzwG6q3> rdf:type owl:AnnotationProperty ;
    rdfs:label "isAssignedTo" .

### http://webprotege.stanford.edu/RBBPMzciF19Y2zoX7HqGdE9
<http://webprotege.stanford.edu/RBBPMzciF19Y2zoX7HqGdE9> rdf:type owl:AnnotationProperty ;
    rdfs:label "hasEmploymentStatus" .

### http://webprotege.stanford.edu/RDBIDN5ihKSmGIUMDcxd9gv
<http://webprotege.stanford.edu/RDBIDN5ihKSmGIUMDcxd9gv> rdf:type owl:AnnotationProperty ;
    rdfs:label "isDesignatedAs" .

#####
# Object Properties
#####

### http://www.w3.org/2000/01/rdf-schema#subClassOf
rdfs:subClassOf rdf:type owl:ObjectProperty ;
    rdfs:label "rdfs:subClassOf" .

#####
# Classes
#####

### http://webprotege.stanford.edu/R0W2DBZNYNNWarTPqtj5bA
<http://webprotege.stanford.edu/R0W2DBZNYNNWarTPqtj5bA> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9EzRtN7BLMYKACGXDVZX4j> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R9EzRtN7BLMYKAC-
GXDVZX4j>
        ] ;
    rdfs:label "Junior high school"^^xsd:string .

### http://webprotege.stanford.edu/R0gpwItmF5lacyXWRODC0A
<http://webprotege.stanford.edu/R0gpwItmF5lacyXWRODC0A> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
        [ rdf:type owl:Restriction ;
```



```

        owl:onProperty rdfs:subClassOf ;
        owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDpd3rS16Dg7SWTpICAh4P4>
    ] ;
    rdfs:label "Director of directorate of primary education"^^xsd:string .

### http://webprotege.stanford.edu/R0tx3DxTWOchiQq2HILIEC
<http://webprotege.stanford.edu/R0tx3DxTWOchiQq2HILIEC> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
    ] ;
    rdfs:label "Greek-language kindergarten abroad"^^xsd:string .

### http://webprotege.stanford.edu/R166nlx2HOrW18CDNNejKt
<http://webprotege.stanford.edu/R166nlx2HOrW18CDNNejKt> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RbirLdHWeU4iLPJ5tMIQVN> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RbirLd-
HWeU4iLPJ5tMIQVN>
    ] ;
    rdfs:label "Special educational needs secondary school"^^xsd:string .

### http://webprotege.stanford.edu/R21qmjBKzImYCIUkrdFpWu
<http://webprotege.stanford.edu/R21qmjBKzImYCIUkrdFpWu> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
    ] ;
    rdfs:label "Social sciences teacher (Branch PE-78)" .

### http://webprotege.stanford.edu/R3vQUaht6vhSIFY3kAdPyD
<http://webprotege.stanford.edu/R3vQUaht6vhSIFY3kAdPyD> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of a european education school (secondary cy-
cle)"^^xsd:string .

### http://webprotege.stanford.edu/R4qfOjoLTfDXCsIDt0DRkt
<http://webprotege.stanford.edu/R4qfOjoLTfDXCsIDt0DRkt> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDaM8MppL3dSyOrtIqe64Nn> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDaM8MppL3dSyOr-
tIqe64Nn>
    ] ;
    rdfs:label "Laboratory centre (E.K.) principal" .

### http://webprotege.stanford.edu/R5iW7p6wgoLZhDWq1eT1TZ
<http://webprotege.stanford.edu/R5iW7p6wgoLZhDWq1eT1TZ> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9kGF10iqTynlgyYj0DbInC> ,
    [ rdf:type owl:Restriction ;

```

```
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInc>
];
rdfs:label "Vocational senior high school"^^xsd:string .
```

```
### http://webprotege.stanford.edu/R5mE7Ldr0RkzafSiBP2R5r
<http://webprotege.stanford.edu/R5mE7Ldr0RkzafSiBP2R5r> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2>
];
rdfs:label "Public hygiene teacher (Branch PE-87.10)" .
```

```
### http://webprotege.stanford.edu/R6IJAauxDYTKjb6qt4XVK
<http://webprotege.stanford.edu/R6IJAauxDYTKjb6qt4XVK> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
];
rdfs:label "Intercultural school principal (= Διεθοντής)" .
```

```
### http://webprotege.stanford.edu/R70IH66TieX3QZOFaiDGgoR
<http://webprotege.stanford.edu/R70IH66TieX3QZOFaiDGgoR> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stan-
ford.edu/RzZWtoODXcfXNc8JjSxgl2>
];
rdfs:label "Cosmetology teacher (Branch PE-87.03)"^^xsd:string .
```

```
### http://webprotege.stanford.edu/R71EJIGdveoaJmXjyxwkKV
<http://webprotege.stanford.edu/R71EJIGdveoaJmXjyxwkKV> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGuJk1ygRM> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8QBqlwHZyNjKVGuJk1ygRM>
];
rdfs:label "Deputy director (= Υποδιευθυντής) of european education school (primary cy-
cle)"^^xsd:string .
```

```
### http://webprotege.stanford.edu/R71ivDTovkZSMjomqL8oBAB
<http://webprotege.stanford.edu/R71ivDTovkZSMjomqL8oBAB> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RD0IM4VGBjpk1LtC8sq4PRj> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stan-
ford.edu/RD0IM4VGBjpk1LtC8sq4PRj>
];
rdfs:label "Primary school special educational needs"^^xsd:string .
```

```
### http://webprotege.stanford.edu/R72I4S5MOGfNba6gV9USUJE
<http://webprotege.stanford.edu/R72I4S5MOGfNba6gV9USUJE> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGuJk1ygRM> ,
[ rdf:type owl:Restriction ;
```

```

        owl:onProperty rdfs:subClassOf ;
        owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8QBqlwHZyNjKVGuJk1ygRM>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of minority school" .

### http://webprotege.stanford.edu/R735wAOiKcVJ3aXjR4zAqGN
<http://webprotege.stanford.edu/R735wAOiKcVJ3aXjR4zAqGN> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RbirLdHWeU4iLPJ5tMIQVN> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RbirLd-
HWeU4iLPJ5tMIQVN>
    ] ;
    rdfs:label "Special vocational education laboratories (E.E.E.K.)"^^xsd:string .

### http://webprotege.stanford.edu/R74c0SQiUKsExHB0qraqQwX
<http://webprotege.stanford.edu/R74c0SQiUKsExHB0qraqQwX> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
    ] ;
    rdfs:label "Secondary school principal (= Διευθυντής)" .

### http://webprotege.stanford.edu/R76tXXVXnW4SADEAFuatRmp
<http://webprotege.stanford.edu/R76tXXVXnW4SADEAFuatRmp> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC>
    ] ;
    rdfs:label "Vocational training school (S.E.K.)"^^xsd:string .

### http://webprotege.stanford.edu/R772wiNBmKIkUiOHBWo2uh1
<http://webprotege.stanford.edu/R772wiNBmKIkUiOHBWo2uh1> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RzZWtoODXcfXNc8JjSxgl2>
    ] ;
    rdfs:label "Dentistry teacher (Branch PE-87.05)" .

### http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit
<http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
    ] ;
    rdfs:label "Deputy director (= Προϊστάμενος) of secondary education school unit"^^xsd:string .

### http://webprotege.stanford.edu/R7LX549fFmHUTt86tXh72xK
<http://webprotege.stanford.edu/R7LX549fFmHUTt86tXh72xK> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RC2n2v8wUPPbz9tjUw3aNun> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;

```

```

        owl:someValuesFrom <http://webprotege.stanford.edu/RC2n2v8wUPPbz9tjUw3aNun>
    ];
    rdfs:label "Special education needs kindergarten manager"^^xsd:string .

### http://webprotege.stanford.edu/R7LvqHKYT3LW4DLoy8UBLQL
<http://webprotege.stanford.edu/R7LvqHKYT3LW4DLoy8UBLQL> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2>
    ] ;
    rdfs:label "Social work teacher (Branch PE-87.06)" .

### http://webprotege.stanford.edu/R7MaKszInG96pyfQIJCIJ3A
<http://webprotege.stanford.edu/R7MaKszInG96pyfQIJCIJ3A> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDJQ60C9ucwmxGmu6T9Qtkl> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDJQ60C9ucwmxGmu6T9Qtkl>
    ] ;
    rdfs:label "Italian literature teacher (Branch PE-34)" .

### http://webprotege.stanford.edu/R7P2948mxiRqUbbSbqJIpNs
<http://webprotege.stanford.edu/R7P2948mxiRqUbbSbqJIpNs> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4>
    ] ;
    rdfs:label "Intercultural education primary school principal (= Διεθνοτητής)" .

### http://webprotege.stanford.edu/R7QJIOYzw5c5i4ITvBvUaOc
<http://webprotege.stanford.edu/R7QJIOYzw5c5i4ITvBvUaOc> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGuJk1ygRM> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGuJk1ygRM>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of experimental primary school" .

### http://webprotege.stanford.edu/R7SaIXr59ElfQx1QDeZpXV8
<http://webprotege.stanford.edu/R7SaIXr59ElfQx1QDeZpXV8> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd>
    ] ;
    rdfs:label "Nurse and pediatricians assistant teacher (Branch TE-01.30)"^^xsd:string .

### http://webprotege.stanford.edu/R7WQx1WxtK4TqTmv7USf6XX
<http://webprotege.stanford.edu/R7WQx1WxtK4TqTmv7USf6XX> rdf:type owl:Class ;
    rdfs:label "Education manager"^^xsd:string .

### http://webprotege.stanford.edu/R7XOUH2yRvXtq9efZiXfeoR

```

```

<http://webprotege.stanford.edu/R7XOUH2yRvXtq9efZiXfeoR> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RSZpAlyx4IXTDCrd58LMIL> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RSZpAlyx4IXTD-
Crd58LMIL>
    ] ;
    rdfs:label "Head of the centre for interdisciplinary assessment, counseling and support
(KE.D.A.S.Y)" .

### http://webprotege.stanford.edu/R7bXj6Wyt07i1upu3zl7ZIx
<http://webprotege.stanford.edu/R7bXj6Wyt07i1upu3zl7ZIx> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDaFij13sMv24Ou8qxE1SE> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDa-
Fij13sMv24Ou8qxE1SE>
    ] ;
    rdfs:label "Mechanical engineering teacher (Branch DE-02.02)"^^xsd:string .

### http://webprotege.stanford.edu/R7dmKy3aFxp2dH0Wtm5mMeW
<http://webprotege.stanford.edu/R7dmKy3aFxp2dH0Wtm5mMeW> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBj5yH> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RCaVtu-
iEZAaHGq5GXNBj5yH>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of special needs senior high school principal" .

### http://webprotege.stanford.edu/R7hCX4VxxXvXICpn0Tgmxo1
<http://webprotege.stanford.edu/R7hCX4VxxXvXICpn0Tgmxo1> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDTkhgSvnHGVfmbVn50EoC2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDTkhgSvnHGVfmbVn50EoC2>
    ] ;
    rdfs:label "Church junior high school"^^xsd:string .

### http://webprotege.stanford.edu/R7mWxL5sqY6JVgurfuIrYWZ
<http://webprotege.stanford.edu/R7mWxL5sqY6JVgurfuIrYWZ> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSAuacmk> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSA-
uacmk>
    ] ;
    rdfs:label "Mechanical engineering teacher (Branch PE-82)" .

### http://webprotege.stanford.edu/R7o3yLE82S9PuAZecocYXqB
<http://webprotege.stanford.edu/R7o3yLE82S9PuAZecocYXqB> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RBSS6UcPpWVBQYqETKOW5Sn> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RBSS6UcPpWVBQYqETKOW5Sn>
    ] ;
    rdfs:label "Dietetics teacher (Branch PE-88.04)" .

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### http://webprotege.stanford.edu/R7qKddkQM3I0PDfb0drUIr
<http://webprotege.stanford.edu/R7qKddkQM3I0PDfb0drUIr> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RrzVbKKEz7SD99yrWahBp2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RrzVbKKEz7SD99yrWahBp2>
    ] ;
    rdfs:label "Professional consultants (Branch EEP-22)" .

### http://webprotege.stanford.edu/R7tUE9tR94mv5RStyYFX6ir
<http://webprotege.stanford.edu/R7tUE9tR94mv5RStyYFX6ir> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDJQ60C9ucwmXGmu6T9Qtkl> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDJQ60C9ucwmXGmu6T9Qtkl>
    ] ;
    rdfs:label "French language teacher (Branch PE-05)" .

### http://webprotege.stanford.edu/R7ugiykt2yUOBGykeiUHZMC
<http://webprotege.stanford.edu/R7ugiykt2yUOBGykeiUHZMC> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of a pilot or experimental high school/ senior
high school - (Gymnasium/ Lyceum)" .

### http://webprotege.stanford.edu/R7vJJ2lh6d1FfK4pR7Xw76h
<http://webprotege.stanford.edu/R7vJJ2lh6d1FfK4pR7Xw76h> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDaFijs13sMv24Ou8qxE1SE> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDa-
Fijs13sMv24Ou8qxE1SE>
    ] ;
    rdfs:label "Construction worker teacher (Branch DE-01.05)" .

### http://webprotege.stanford.edu/R7wEgyDrGM33ayYE4E8V8ax
<http://webprotege.stanford.edu/R7wEgyDrGM33ayYE4E8V8ax> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RrHhTsXQsJvx16gaR9WSpB> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RrHhTsXQsJvx16gaR9WSpB>
    ] ;
    rdfs:label "Laboratory chemist (Branch TE-02.03)" .

### http://webprotege.stanford.edu/R7y80rttDazgwIzEYKEmvSu
<http://webprotege.stanford.edu/R7y80rttDazgwIzEYKEmvSu> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
    ] ;
    rdfs:label "Mathematics teacher (Branch PE-03)" .

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### http://webprotege.stanford.edu/R7yDCJXtL1UCO8CvCqOReuh
<http://webprotege.stanford.edu/R7yDCJXtL1UCO8CvCqOReuh> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
    ] ;
    rdfs:label "Secondary intercultural school" .

### http://webprotege.stanford.edu/R80CoZYp6rMttHzZ9FgRbto
<http://webprotege.stanford.edu/R80CoZYp6rMttHzZ9FgRbto> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
    ] ;
    rdfs:label "Minority high school/senior high school"^^xsd:string .

### http://webprotege.stanford.edu/R81H5rZDOeje3b4YvrVPGOJ
<http://webprotege.stanford.edu/R81H5rZDOeje3b4YvrVPGOJ> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
    ] ;
    rdfs:label "Dentistry teacher (Branch TE-01.26)" .

### http://webprotege.stanford.edu/R83SQg2tIsr4F2R3QXOdS9q
<http://webprotege.stanford.edu/R83SQg2tIsr4F2R3QXOdS9q> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9NeHvfHc0srq1EQFsp2Xdj> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9NeHvfHc0srq1EQFsp2Xdj>
    ] ;
    rdfs:label "Music high school (Gymnasium) principal" .

### http://webprotege.stanford.edu/R83cpaeTTsGx1ASTGneXa0l
<http://webprotege.stanford.edu/R83cpaeTTsGx1ASTGneXa0l> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDgNoC6MCXt7IzISBV0CIMO> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDgNoC6MCXt7IzISBV0CIMO>
    ] ;
    rdfs:label "Pilot or experimental high school (Gymnasium) principal" .

### http://webprotege.stanford.edu/R8B2F8yJHp1g3lqeOlGb7VL
<http://webprotege.stanford.edu/R8B2F8yJHp1g3lqeOlGb7VL> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
    ] ;
    rdfs:label "Nautical studies teacher (Branch PE-90)" .

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### http://webprotege.stanford.edu/R8B55Ej1DzGbVnnK1d0hYyF
<http://webprotege.stanford.edu/R8B55Ej1DzGbVnnK1d0hYyF> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDpd3rS16Dg7SWTpICAh4P4>
    ] ;
    rdfs:label "Kindergarten principal (= Διευθυντής)" .

### http://webprotege.stanford.edu/R8BnfT8FsLvVQAAl4y7T5Y
<http://webprotege.stanford.edu/R8BnfT8FsLvVQAAl4y7T5Y> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RbirLdHWeU4iLPJ5tMIQVN> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RbirLd-
HWeU4iLPJ5tMIQVN>
    ] ;
    rdfs:label "Unified special vocational high school (EN.E.E.GY.L.)"^^xsd:string .

### http://webprotege.stanford.edu/R8CubbNu0qnZmhwavGKfWmh
<http://webprotege.stanford.edu/R8CubbNu0qnZmhwavGKfWmh> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
    ] ;
    rdfs:label "Intercultural primary school"^^xsd:string .

### http://webprotege.stanford.edu/R8E8ilxGR4Yaw7dsP1ntjux
<http://webprotege.stanford.edu/R8E8ilxGR4Yaw7dsP1ntjux> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7yDCJXtL1UCO8CvCqOReuh> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R7yDCJXtL1UCO8CvCqO-
Reuh>
    ] ;
    rdfs:label "Intercultural senior high school"^^xsd:string .

### http://webprotege.stanford.edu/R8EF1DAzoMXi3SDblcdCScW
<http://webprotege.stanford.edu/R8EF1DAzoMXi3SDblcdCScW> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDaFij13sMv24Ou8qxE1SE> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDa-
Fij13sMv24Ou8qxE1SE>
    ] ;
    rdfs:label "Carpenter teacher (Branch DE-01.13)" .

### http://webprotege.stanford.edu/R8FABm1sFL2eGeaYEu1YKT5
<http://webprotege.stanford.edu/R8FABm1sFL2eGeaYEu1YKT5> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RMuZMNQIPZbkoygrr9D0za> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RMuZMNQIPZbko-
ygr9D0za>
    ] ;
    rdfs:label "Permanent employment"^^xsd:string .

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### http://webprotege.stanford.edu/R8FTw36fQRtw9A8BEL8vFlg
<http://webprotege.stanford.edu/R8FTw36fQRtw9A8BEL8vFlg> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDaFij13sMv24Ou8qxE1SE> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RDa-
Fij13sMv24Ou8qxE1SE>
        ] ;
    rdfs:label "Textile teacher (Branch DE-01.14)" .

### http://webprotege.stanford.edu/R8GiZFskFelMUJEeyv2JtXH
<http://webprotege.stanford.edu/R8GiZFskFelMUJEeyv2JtXH> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDO2FBSYBDtUI4gcwIkyB1M> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDO2FBSYBDtUI4gcwIkyB1M>
        ] ;
    rdfs:label "ICT teacher (Branch PE-86)" .

### http://webprotege.stanford.edu/R8Grc5q45GkdHw3oDWeDhus
<http://webprotege.stanford.edu/R8Grc5q45GkdHw3oDWeDhus> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
        ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of an intercultural education high school/ senior
high school - (Gymnasium/ Lyceum)" .

### http://webprotege.stanford.edu/R8JYUrocIFGJXbcr3wNDiV
<http://webprotege.stanford.edu/R8JYUrocIFGJXbcr3wNDiV> rdf:type owl:Class ;
    rdfs:subClassOf owl:Thing ;
    <http://webprotege.stanford.edu/RBBPMzciF19Y2zoX7HqGdE9> "classes={ Employment sta-
tus}""^^xsd:string ;
    rdfs:label "Teacher""^^xsd:string .

### http://webprotege.stanford.edu/R8KiQQ9qac1RNpQ712SPvo
<http://webprotege.stanford.edu/R8KiQQ9qac1RNpQ712SPvo> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
        ] ;
    rdfs:label "Electronics teacher (Branch TE-01.07)" .

### http://webprotege.stanford.edu/R8Kn3nyIv8ySuViD037Ayb9
<http://webprotege.stanford.edu/R8Kn3nyIv8ySuViD037Ayb9> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RzZWtoODXcfXNc8JjSxgl2>
        ] ;
    rdfs:label "Physiotherapy teacher (Branch PE-87.08)" .

### http://webprotege.stanford.edu/R8MpFsmNvgmqgIf9q57aqzQ
<http://webprotege.stanford.edu/R8MpFsmNvgmqgIf9q57aqzQ> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RrHhTsXQsJvx16gaR9WSpB> ,

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    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RrHhTsXQsJvx16gaR9WSpB>
    ] ;
    rdfs:label "Applied arts teacher (Branch TE-02.05)" .

### http://webprotege.stanford.edu/R8OrML3wCHT5iPW4hJJtN5R
<http://webprotege.stanford.edu/R8OrML3wCHT5iPW4hJJtN5R> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RMuZMNQIPZbkoygr9D0za> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/RMuZMNQIPZbko-
ygr9D0za>
  ] ;
  rdfs:label "Substitute employment"^^xsd:string .

### http://webprotege.stanford.edu/R8P9ffRfk6ElpqzN79e7ivp
<http://webprotege.stanford.edu/R8P9ffRfk6ElpqzN79e7ivp> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGUJk1ygRM> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8QBqlwHZyNjKVGUJk1ygRM>
  ] ;
  rdfs:label "Deputy director (= Υποδιευθυντής) of kindergarten" .

### http://webprotege.stanford.edu/R8QBqlwHZyNjKVGUJk1ygRM
<http://webprotege.stanford.edu/R8QBqlwHZyNjKVGUJk1ygRM> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDpd3rS16Dg7SWTpICAh4P4>
  ] ;
  rdfs:label "Deputy director (= Υποδιευθυντής) of primary education school unit"^^xsd:string .

### http://webprotege.stanford.edu/R8TwiDzycRMd81jMd4a4Yp
<http://webprotege.stanford.edu/R8TwiDzycRMd81jMd4a4Yp> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGUJk1ygRM> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8QBqlwHZyNjKVGUJk1ygRM>
  ] ;
  rdfs:label "Deputy director (= Υποδιευθυντής) of intercultural primary school" .

### http://webprotege.stanford.edu/R8U52ZCspK8BDtG7eudI04
<http://webprotege.stanford.edu/R8U52ZCspK8BDtG7eudI04> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDpd3rS16Dg7SWTpICAh4P4>
  ] ;
  rdfs:label "Primary school principal (= Διευθυντής)" .

### http://webprotege.stanford.edu/R8U5jooneFi4UYVDmcN5OqN
<http://webprotege.stanford.edu/R8U5jooneFi4UYVDmcN5OqN> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,

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    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of an art high school/ senior high school - (Gymnasium/ Lyceum)" .

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### http://webprotege.stanford.edu/R8UL4ifowwLZldHZWifPC6n
<http://webprotege.stanford.edu/R8UL4ifowwLZldHZWifPC6n> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4>
  ] ;
  rdfs:label "Experimental primary school principal (= Διευθυντής)" .

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### http://webprotege.stanford.edu/R8ZTW2wgn9PDn0P4RBoPto7
<http://webprotege.stanford.edu/R8ZTW2wgn9PDn0P4RBoPto7> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RBSS6UcPpWVBQYqETKOW5Sn> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/RBSS6UcPpWVBQYqETKOW5Sn>
  ] ;
  rdfs:label "Natural environment teacher (Branch PE-88.05)" .

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### http://webprotege.stanford.edu/R8cWix5P1ob9Zb7GnxiaiYd
<http://webprotege.stanford.edu/R8cWix5P1ob9Zb7GnxiaiYd> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSAuacmk> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSAuacmk>
  ] ;
  rdfs:label "Chemical engineering teacher (Branch PE-85)" .

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### http://webprotege.stanford.edu/R8dGOTCIfcjtMvvF82af4PW
<http://webprotege.stanford.edu/R8dGOTCIfcjtMvvF82af4PW> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RSZpAlyx4IXTDCrd58LMIL> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/RSZpAlyx4IXTDCrd58LMIL>
  ] ;
  rdfs:label "Regional director of primary and secondary education" .

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### http://webprotege.stanford.edu/R8dTqPRCr4yCS3nodzMYwq0
<http://webprotege.stanford.edu/R8dTqPRCr4yCS3nodzMYwq0> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RD0IM4VGBj1LtC8sq4PRj> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/RD0IM4VGBj1LtC8sq4PRj>
  ] ;
  rdfs:label "Primary school parallel support"^^xsd:string .

```

```

### http://webprotege.stanford.edu/R8gF5z9PRB1a0L5uIVfKejm
<http://webprotege.stanford.edu/R8gF5z9PRB1a0L5uIVfKejm> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBJ5yH> ,

```

```

[ rdf:type owl:Restriction ;
  owl:onProperty rdfs:subClassOf ;
  owl:someValuesFrom <http://webprotege.stanford.edu/RCaVtu-
iEZAaHGq5GXNBJ5yH>
] ;
rdfs:label "Principal of a unified special vocational high school / senior high school
(EN.E.E.GY.L.)" .

### http://webprotege.stanford.edu/R8i1R4OvhwJXuS34TDBKPnw
<http://webprotege.stanford.edu/R8i1R4OvhwJXuS34TDBKPnw> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RD0IM4VGBjpk1LtC8sq4PRj> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/RD0IM4VGBjpk1LtC8sq4PRj>
  ] ;
  rdfs:label "Primary school integration department"^^xsd:string .

### http://webprotege.stanford.edu/R8j6p8gYIjSvqDJ7ZjoqUj6
<http://webprotege.stanford.edu/R8j6p8gYIjSvqDJ7ZjoqUj6> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R7LX549fFmHUTt86tXh72xK> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/R7LX549fFmHUTt86tXh72xK>
  ] ;
  rdfs:label "Head of special kindergarten" .

### http://webprotege.stanford.edu/R8nZoaGchwKjLLO9Dis7Khj
<http://webprotege.stanford.edu/R8nZoaGchwKjLLO9Dis7Khj> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RDJQ60C9ucwmXGmu6T9Qtkl> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDJQ60C9ucwmXGmu6T9Qtkl>
  ] ;
  rdfs:label "German language teacher (Branch PE-07)" .

### http://webprotege.stanford.edu/R8pDPXKMDCe7ivNcsY7ThPI
<http://webprotege.stanford.edu/R8pDPXKMDCe7ivNcsY7ThPI> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBJ5yH> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/RCaVtu-
iEZAaHGq5GXNBJ5yH>
  ] ;
  rdfs:label "Special vocational education laboratories principal (E.E.E.EK.)" .

### http://webprotege.stanford.edu/R8rsN9zft2SKVOUYZN6NdJO
<http://webprotege.stanford.edu/R8rsN9zft2SKVOUYZN6NdJO> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
  ] ;
  rdfs:label "Deputy director (= Υποδιευθυντής) of a church high school / senior high school" .

### http://webprotege.stanford.edu/R8ssPXmq1u2vHczahhMuWn2
<http://webprotege.stanford.edu/R8ssPXmq1u2vHczahhMuWn2> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,

```

```

[ rdf:type owl:Restriction ;
  owl:onProperty rdfs:subClassOf ;
  owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
];
rdfs:label "Experimental primary school"^^xsd:string .

### http://webprotege.stanford.edu/R99LG39Pp3uLObtMJQxXC8D
<http://webprotege.stanford.edu/R99LG39Pp3uLObtMJQxXC8D> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/R9o64JtFVsze5rYg8blhWCr> ,
[ rdf:type owl:Restriction ;
  owl:onProperty rdfs:subClassOf ;
  owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9o64JtFVsze5rYg8blhWCr>
];
rdfs:label "Deputy director (= Υποδιευθυντής) of special primary school" .

### http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr
<http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RCpMPlbmNfKctOGtEShfUpL> ,
[ rdf:type owl:Restriction ;
  owl:onProperty rdfs:subClassOf ;
  owl:someValuesFrom <http://webprotege.stanford.edu/RCpMPlbmNfKctOG-
tEShfUpL>
];
rdfs:label "1.General primary education school"^^xsd:string .

### http://webprotege.stanford.edu/R9EzRtN7BLMYKACGXDVZX4j
<http://webprotege.stanford.edu/R9EzRtN7BLMYKACGXDVZX4j> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
[ rdf:type owl:Restriction ;
  owl:onProperty rdfs:subClassOf ;
  owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
];
rdfs:label "Secondary school"^^xsd:string .

### http://webprotege.stanford.edu/R9FDEf4aqfVdiQIdAwtrywE
<http://webprotege.stanford.edu/R9FDEf4aqfVdiQIdAwtrywE> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC> ,
[ rdf:type owl:Restriction ;
  owl:onProperty rdfs:subClassOf ;
  owl:someValuesFrom <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC>
];
rdfs:label "Vocational school (EPA.S.)"^^xsd:string .

### http://webprotege.stanford.edu/R9LdoPUtgQUwTRGFHcm2bU3
<http://webprotege.stanford.edu/R9LdoPUtgQUwTRGFHcm2bU3> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RCqaGsJeljhQZIKExS2XF6o> ,
[ rdf:type owl:Restriction ;
  owl:onProperty rdfs:subClassOf ;
  owl:someValuesFrom <http://webprotege.stanford.edu/RCqaGsJel-
jhQZIKExS2XF6o>
];
rdfs:label "Physics teacher (Branch PE-04.01)" .

### http://webprotege.stanford.edu/R9NIWNVbWCTAH3Qie4t8Kjj
<http://webprotege.stanford.edu/R9NIWNVbWCTAH3Qie4t8Kjj> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
[ rdf:type owl:Restriction ;

```

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    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
  ] ;
  rdfs:label "Deputy director (= Υποδιευθυντής) of a high school - (Gymnasium)" .
```

```
### http://webprotege.stanford.edu/R9NLq4x0s8tYkoDzx062xMz
<http://webprotege.stanford.edu/R9NLq4x0s8tYkoDzx062xMz> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
  ] ;
  rdfs:label "Silversmith teacher (Branch TE-01.25)" .
```

```
### http://webprotege.stanford.edu/R9NeHvfHc0srq1EQFsp2Xdj
<http://webprotege.stanford.edu/R9NeHvfHc0srq1EQFsp2Xdj> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
  ] ;
  rdfs:label "Music school principal (= Διευθυντής)" .
```

```
### http://webprotege.stanford.edu/R9O7CFxbHLk4j0GDJWSq6h
<http://webprotege.stanford.edu/R9O7CFxbHLk4j0GDJWSq6h> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R74c0SQiUKsExHB0qraqQwX> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/R74c0SQiUKsExHB0qraqQwX>
  ] ;
  rdfs:label "General high school (Gymnasium) principal (=Γενικό Γυμνάσιο)" .
```

```
### http://webprotege.stanford.edu/R9O7eH9DWt2DcA7AjDkhC4F
<http://webprotege.stanford.edu/R9O7eH9DWt2DcA7AjDkhC4F> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R166nlx2HOrW18CDNNejKt> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/R166nlx2HOrW18CDNNejKt>
  ] ;
  rdfs:label "Special needs senior high school"^^xsd:string .
```

```
### http://webprotege.stanford.edu/R9XBf3wPRKDDmH82JKTzNSI
<http://webprotege.stanford.edu/R9XBf3wPRKDDmH82JKTzNSI> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RBSS6UcPpWVBQYqETKOW5Sn> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/RBSS6UcPpWVBQYqETKOW5Sn>
  ] ;
  rdfs:label "Animal science teacher (Branch PE-88.03)" .
```

```
### http://webprotege.stanford.edu/R9YGN9MgTKSJfSPJMgAc75p
<http://webprotege.stanford.edu/R9YGN9MgTKSJfSPJMgAc75p> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
```

```

        owl:someValuesFrom <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd>
    ];
    rdfs:label "Hairdressing teacher (Branch TE-01.19)" .

### http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd
<http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDhiKvosMjuGgpgeMByvfVK> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDhiK-
vosMjuGgpgeMByvfVK>
    ] ;
    rdfs:label "Secondary education teacher graduate of a technological education institution
(Branch TE.01)"^^xsd:string .

### http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC
<http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
    ] ;
    rdfs:label "Vocational school"^^xsd:string .

### http://webprotege.stanford.edu/R9o64JtFVsze5rYg8blhWCr
<http://webprotege.stanford.edu/R9o64JtFVsze5rYg8blhWCr> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RC2n2v8wUPPbz9tjUw3aNun> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RC2n2v8wUPPbz9tjUw3aNun>
    ] ;
    rdfs:label "Special education needs primary school manager"^^xsd:string .

### http://webprotege.stanford.edu/R9orkVuVOdaRGFzEe4C1NnW
<http://webprotege.stanford.edu/R9orkVuVOdaRGFzEe4C1NnW> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
    ] ;
    rdfs:label "Kindergarten" .

### http://webprotege.stanford.edu/R9q72kFGt4edi0giuImK1xX
<http://webprotege.stanford.edu/R9q72kFGt4edi0giuImK1xX> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RMI8QRGmAEUpECnUp80Tv> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RMI8QRG-
mAEUpECnUp80Tv>
    ] ;
    rdfs:label "Kindergarten teacher (Branch PE-60)" .

### http://webprotege.stanford.edu/R9tmbqgw7tLL4YSWGMZteof
<http://webprotege.stanford.edu/R9tmbqgw7tLL4YSWGMZteof> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
    [ rdf:type owl:Restriction ;

```

```

        owl:onProperty rdfs:subClassOf ;
        owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDpd3rS16Dg7SWTpICAh4P4>
    ] ;
    rdfs:label "Head of educational quality (primary education)" .

### http://webprotege.stanford.edu/R9ypR28KfopzPLrEqqfgNpB
<http://webprotege.stanford.edu/R9ypR28KfopzPLrEqqfgNpB> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RrHhTsXQsJvxl6gaR9WSpB> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RrHhTsXQsJvxl6gaR9WSpB>
    ] ;
    rdfs:label "Agriculture teacher (Branch TE-02.07)" .

### http://webprotege.stanford.edu/R9yxgojkb6sJ4Gjdi86Nn1t
<http://webprotege.stanford.edu/R9yxgojkb6sJ4Gjdi86Nn1t> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
    ] ;
    rdfs:label "Refrigeration engineering teacher (Branch TE-01.04)" .

### http://webprotege.stanford.edu/RB2kngueDJcH8CVLSyu7GBd
<http://webprotege.stanford.edu/RB2kngueDJcH8CVLSyu7GBd> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
    ] ;
    rdfs:label "Pilot or experimental school"^^xsd:string .

### http://webprotege.stanford.edu/RB5I21MjIxB0rdOKavRorLB
<http://webprotege.stanford.edu/RB5I21MjIxB0rdOKavRorLB> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
    ] ;
    rdfs:label "Medical laboratory technology vocational teacher" .

### http://webprotege.stanford.edu/RB5jqtQJtrjaAek52E71j9b
<http://webprotege.stanford.edu/RB5jqtQJtrjaAek52E71j9b> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of a laboratory centre - (E.K)" .

### http://webprotege.stanford.edu/RB6LCT7rA7RchZ70t1vkaSG
<http://webprotege.stanford.edu/RB6LCT7rA7RchZ70t1vkaSG> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSAuacmk> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;

```



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        owl:someValuesFrom <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSA-
uacmk>
    ];
    rdfs:label "Electrical engineering teacher (Branch PE-83)" .

### http://webprotege.stanford.edu/RB6VSAKliKc8qytP22AwSy9
<http://webprotege.stanford.edu/RB6VSAKliKc8qytP22AwSy9> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGuJk1ygRM> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8QBqlwHZyNjKVGuJk1ygRM>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of experimental kindergarten" .

### http://webprotege.stanford.edu/RB8QTIjQFN3pl6gL9BPSaYH
<http://webprotege.stanford.edu/RB8QTIjQFN3pl6gL9BPSaYH> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RvYFnKgOlpHvnYYiR7KEq1> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RvYFnKgOlpHvnY-
YiR7KEq1>
    ] ;
    rdfs:label "Juvenile correctional facility junior high school"^^xsd:string .

### http://webprotege.stanford.edu/RBAW2IixDqqK0elwVOKB2Up
<http://webprotege.stanford.edu/RBAW2IixDqqK0elwVOKB2Up> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
    ] ;
    rdfs:label "Art school principal (= Διευθυντής)" .

### http://webprotege.stanford.edu/RBAyrsDvMeRzXD27aIO2v6v
<http://webprotege.stanford.edu/RBAyrsDvMeRzXD27aIO2v6v> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RzZWtoODXcfXNc8JjSxgl2>
    ] ;
    rdfs:label "Nursing teacher (Branch PE-87.02)" .

### http://webprotege.stanford.edu/RBB2yK5zSW2ljzIyVmNjotk
<http://webprotege.stanford.edu/RBB2yK5zSW2ljzIyVmNjotk> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R166nlx2HOrW18CDNNejKt> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R166nlx2HOrW18CDNNejKt>
    ] ;
    rdfs:label "Special needs junior high school"^^xsd:string .

### http://webprotege.stanford.edu/RBBTAp1Wb1NzZnLEXwnS4lt
<http://webprotege.stanford.edu/RBBTAp1Wb1NzZnLEXwnS4lt> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RMI8QRGmAEUPEcNUp80Tv> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;

```

```

        owl:someValuesFrom <http://webprotege.stanford.edu/RMI8QRG-
mAEUpECnUp80Tv>
    ];
    rdfs:label "Minority schools teacher (program of Thrace) (Branch PE-73)" .

### http://webprotege.stanford.edu/RBDCPCtpkhGA2aX8T5LxxvD
<http://webprotege.stanford.edu/RBDCPCtpkhGA2aX8T5LxxvD> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
    ] ;
    rdfs:label "History methodology science theory teacher (Branch PE-33)"^^xsd:string .

### http://webprotege.stanford.edu/RBLpz4G07xRqviWkgU2Ex4H
<http://webprotege.stanford.edu/RBLpz4G07xRqviWkgU2Ex4H> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
    ] ;
    rdfs:label "(Secondary) education counsellor"^^xsd:string .

### http://webprotege.stanford.edu/RBNVeDJ1jd6KAszbrNfjYN4
<http://webprotege.stanford.edu/RBNVeDJ1jd6KAszbrNfjYN4> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGGuJk1ygRM> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8QBqlwHZyNjKVGGuJk1ygRM>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of primary school"^^xsd:string .

### http://webprotege.stanford.edu/RBSS6UcPpWVBQYqETKOW5Sn
<http://webprotege.stanford.edu/RBSS6UcPpWVBQYqETKOW5Sn> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
    ] ;
    rdfs:label "Agriculture, nutrition and environment teacher (Branch PE-88)" .

### http://webprotege.stanford.edu/RBXAy2s4ed6G9zWCUdbWUAV
<http://webprotege.stanford.edu/RBXAy2s4ed6G9zWCUdbWUAV> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R8OrML3wCHT5iPW4hJJtN5R> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8OrML3wCHT5iPW4hJJtN5R>
    ] ;
    rdfs:label "Full-time substitute employment"^^xsd:string .

### http://webprotege.stanford.edu/RBZa1n15r3laJOSuYDVcbSY
<http://webprotege.stanford.edu/RBZa1n15r3laJOSuYDVcbSY> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBJ5yH> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;

```

```

        owl:someValuesFrom <http://webprotege.stanford.edu/RCaVtu-
iEZAaHGq5GXNBJ5yH>
    ];
    rdfs:label "Special needs senior high school principal" .

### http://webprotege.stanford.edu/RBgE7AyCaOC9aVOgm82UiA6
<http://webprotege.stanford.edu/RBgE7AyCaOC9aVOgm82UiA6> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RB2kngeuDjCH8CVLSyu7GBd> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RB2kngeuDjCH8CVL-
Syu7GBd>
    ];
    rdfs:label "Pilot or experimental junior high school"^^xsd:string .

### http://webprotege.stanford.edu/RBgFRbc3DLWYPJP6bQFfofJ
<http://webprotege.stanford.edu/RBgFRbc3DLWYPJP6bQFfofJ> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDaFijs13sMv24Ou8qxE1SE> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDa-
Fijs13sMv24Ou8qxE1SE>
    ];
    rdfs:label "Hairdressing teacher (Branch DE-01.17)" .

### http://webprotege.stanford.edu/RBitOEgKnxhu57fYb5mCHQ
<http://webprotege.stanford.edu/RBitOEgKnxhu57fYb5mCHQ> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
    ];
    rdfs:label "Music school"^^xsd:string .

### http://webprotege.stanford.edu/RBjNCzSe9tcPCJ1kavBHdEA
<http://webprotege.stanford.edu/RBjNCzSe9tcPCJ1kavBHdEA> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R8OrML3wCHT5iPW4hJtN5R> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8OrML3wCHT5iPW4hJtN5R>
    ];
    rdfs:label "Part-time substitute employment"^^xsd:string .

### http://webprotege.stanford.edu/RBnWdeD6oiMfKncav9ocEh8
<http://webprotege.stanford.edu/RBnWdeD6oiMfKncav9ocEh8> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
    ];
    rdfs:label "Greek-language primary school abroad"^^xsd:string .

### http://webprotege.stanford.edu/RBsWvu4iQHeIQKD1odTuLIQ
<http://webprotege.stanford.edu/RBsWvu4iQHeIQKD1odTuLIQ> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RMuZMNQIPZbkoygr9D0za> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;

```

```

        owl:someValuesFrom <http://webprotege.stanford.edu/RMuZMNQIPZbko-
ygr9D0za>
    ];
    rdfs:label "Hourly employment"^^xsd:string .

### http://webprotege.stanford.edu/RBumahJs86lKLnIMfU8aLL6
<http://webprotege.stanford.edu/RBumahJs86lKLnIMfU8aLL6> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RzZWtoODXcfXNc8JjSxgl2>
    ] ;
    rdfs:label "Nursing teacher (Branch PE-87.09)" .

### http://webprotege.stanford.edu/RBxREwUKzsFD9kJYDNxlAnR
<http://webprotege.stanford.edu/RBxREwUKzsFD9kJYDNxlAnR> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R74c0SQiUKsExHB0qraqQwX> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R74c0SQiUKsExHB0qraqQwX>
    ] ;
    rdfs:label "General senior high school (Lyceum) principal (=Γενικό Λύκειο)" .

### http://webprotege.stanford.edu/RC1lwFf9vX5gjKyiapIjKJ4
<http://webprotege.stanford.edu/RC1lwFf9vX5gjKyiapIjKJ4> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9o64JtFVsze5rYg8blhWCr> ;
    rdfs:label "Special needs primary school principal" .

### http://webprotege.stanford.edu/RC29UFPOiiuK3MPbuwK11Vd
<http://webprotege.stanford.edu/RC29UFPOiiuK3MPbuwK11Vd> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
    ] ;
    rdfs:label "Laboratory centre sector (= τομέας) responsible" .

### http://webprotege.stanford.edu/RC2n2v8wUPPbz9tjUw3aNun
<http://webprotege.stanford.edu/RC2n2v8wUPPbz9tjUw3aNun> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7WQxIWxtK4TqTmv7USf6XX> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R7WQxIWxtK4TqTmv7USf6XX>
    ] ;
    rdfs:label "4.Special needs education manager" .

### http://webprotege.stanford.edu/RC3XX7SQM4jsXcAyPhYCU59
<http://webprotege.stanford.edu/RC3XX7SQM4jsXcAyPhYCU59> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
    ] ;
    rdfs:label "Art school"^^xsd:string .

```

```

### http://webprotege.stanford.edu/RC6L9QQ5MSA3WnnvUUBC4Ba
<http://webprotege.stanford.edu/RC6L9QQ5MSA3WnnvUUBC4Ba> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9EzRtN7BLMYKACGXDVZX4j> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R9EzRtN7BLMYKAC-
GXDVZX4j>
        ] ;
    rdfs:label "Senior high school"^^xsd:string .

### http://webprotege.stanford.edu/RC9PaDjLFETb4TtZ0mBwbW8
<http://webprotege.stanford.edu/RC9PaDjLFETb4TtZ0mBwbW8> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC>
        ] ;
    rdfs:label "Laboratory centre (E.K.)"^^xsd:string .

### http://webprotege.stanford.edu/RC9YcD2OR8YU5GbONvVB8Sf
<http://webprotege.stanford.edu/RC9YcD2OR8YU5GbONvVB8Sf> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RrHhTsXQsJvxl6gaR9WSpB> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RrHhTsXQsJvxl6gaR9WSpB>
        ] ;
    rdfs:label "Designers - builders teacher (Branch TE-02.01)"^^xsd:string .

### http://webprotege.stanford.edu/RC9f0fvzgRFvy0VhvMTfIwJ
<http://webprotege.stanford.edu/RC9f0fvzgRFvy0VhvMTfIwJ> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RSZpAlyx4IXTDcRd58LMIL> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RSZpAlyx4IXTD-
Crd58LMIL>
        ] ;
    rdfs:label "Head of the education centre for the environment and sustainability (K.E.P.A)" .

### http://webprotege.stanford.edu/RCCYVxdKf9oAyE2zDjGf7ja
<http://webprotege.stanford.edu/RCCYVxdKf9oAyE2zDjGf7ja> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBJ5yH> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RCaVtu-
iEZAaHGq5GXNBJ5yH>
        ] ;
    rdfs:label "Special needs high school principal" .

### http://webprotege.stanford.edu/RCCu0JOMeZkN2A9Uh6NCqMr
<http://webprotege.stanford.edu/RCCu0JOMeZkN2A9Uh6NCqMr> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
        ] ;
    <http://webprotege.stanford.edu/RDBIDN5ihKSmGIUMDcxd9gv> "classes={2.Secondary edu-
cation manager}"^^xsd:string ;
    rdfs:label "Financial studies teacher (Branch PE-80)" .

```

```

### http://webprotege.stanford.edu/RCHZz2cizimUoaFyxFOt0rZ
<http://webprotege.stanford.edu/RCHZz2cizimUoaFyxFOt0rZ> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDpd3rS16Dg7SWTpICAh4P4>
    ] ;
    rdfs:label "Head of primary education school unit"^^xsd:string .

### http://webprotege.stanford.edu/RcJqmRpMqrQPRUKsxTvlkCF
<http://webprotege.stanford.edu/RcJqmRpMqrQPRUKsxTvlkCF> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCqGgsJeljhQZIKExS2XF6o> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RCqGgsJel-
jhQZIKExS2XF6o>
    ] ;
    rdfs:label "Biology teacher (Branch PE-04.04)" .

### http://webprotege.stanford.edu/RCMIK0nvSjFOY4fdQLmO2gX
<http://webprotege.stanford.edu/RCMIK0nvSjFOY4fdQLmO2gX> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RBitOEgKnXhu57tfYb5mCHQ> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RBi-
tOEgKnXhu57tfYb5mCHQ>
    ] ;
    rdfs:label "Music junior high school (Gymnasium)"^^xsd:string .

### http://webprotege.stanford.edu/RCRodFPkRwEW4Jh8EYTEvH7
<http://webprotege.stanford.edu/RCRodFPkRwEW4Jh8EYTEvH7> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RD0IM4VGBjKp1LtC8sq4PRj> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RD0IM4VGBjKp1LtC8sq4PRj>
    ] ;
    rdfs:label "Special educational needs kindergarten"^^xsd:string .

### http://webprotege.stanford.edu/RCSivrGtUfWxq1z16ZM5kvg
<http://webprotege.stanford.edu/RCSivrGtUfWxq1z16ZM5kvg> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
    ] ;
    rdfs:label "Experimental kindergarten"^^xsd:string .

### http://webprotege.stanford.edu/RCTIqeNvJfpejL3zssKVsq
<http://webprotege.stanford.edu/RCTIqeNvJfpejL3zssKVsq> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
    ] ;
    rdfs:label "European school (primary cycle)"^^xsd:string .

```

```

### http://webprotege.stanford.edu/RCW5XCKBWDR52KSrVUNyeQ8
<http://webprotege.stanford.edu/RCW5XCKBWDR52KSrVUNyeQ8> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RzZWtoODXcfXNc8JjSxgl2>
    ] ;
    rdfs:label "Radiology teacher (Branch PE-87.07)" .

```

```

### http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBJ5yH
<http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBJ5yH> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RC2n2v8wUPPbz9tjUw3aNun> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RC2n2v8wUPPbz9tjUw3aNun>
    ] ;
    rdfs:label "Special education needs secondary school manager"^^xsd:string .

```

```

### http://webprotege.stanford.edu/RCc2P39r13VCZPRPoscjSO9
<http://webprotege.stanford.edu/RCc2P39r13VCZPRPoscjSO9> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RPOuEcaXhMXnaByJZA0lij> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RPOuEca-
XhMXnaByJZA0lij>
    ] ;
    rdfs:label "Drama teacher (Branch PE-91.02)" .

```

```

### http://webprotege.stanford.edu/RCi7yUV1COISU4JP870yZsj
<http://webprotege.stanford.edu/RCi7yUV1COISU4JP870yZsj> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RBSS6UcPpWVBQYqETKOW5Sn> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RBSS6UcPpWVBQYqETKOW5Sn>
    ] ;
    rdfs:label "Agriculture teacher (Branch PE-88.01)" .

```

```

### http://webprotege.stanford.edu/RCIalRAWeRmYnwp08cTbcnL
<http://webprotege.stanford.edu/RCIalRAWeRmYnwp08cTbcnL> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
    ] ;
    rdfs:label "Director of directorate of secondary education"^^xsd:string .

```

```

### http://webprotege.stanford.edu/RCpMPlbmNfKctOGtEShfUpL
<http://webprotege.stanford.edu/RCpMPlbmNfKctOGtEShfUpL> rdf:type owl:Class ;
    rdfs:label "School" .

```

```

### http://webprotege.stanford.edu/RCqaGsJeljQZIKExS2XF6o
<http://webprotege.stanford.edu/RCqaGsJeljQZIKExS2XF6o> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTWL4AfUaVGdrmQub54v0> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;

```

```

        owl:someValuesFrom <http://webprotege.stanford.edu/RjTWL4AfUaVG-
drmQub54v0>
    ];
    rdfs:label "Natural sciences teacher (Branch PE-04)" .

### http://webprotege.stanford.edu/RCxjh1veLvdEJaKPKxsdLU7
<http://webprotege.stanford.edu/RCxjh1veLvdEJaKPKxsdLU7> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of a general senior high school (Lyceum) -
(=Γενικό λύκειο)" .

### http://webprotege.stanford.edu/RD0IM4VGBjKp1LtC8sq4PRj
<http://webprotege.stanford.edu/RD0IM4VGBjKp1LtC8sq4PRj> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCpMPlbmNfKctOGtEShfUpL> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RCpMPlbmNfKctOG-
tEShfUpL>
    ] ;
    rdfs:label "3.Special needs primary education school"^^xsd:string .

### http://webprotege.stanford.edu/RD0kUwf7bM70B0b891DvxdW
<http://webprotege.stanford.edu/RD0kUwf7bM70B0b891DvxdW> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RMI8QRGmAEUpECnUp80Tv> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RMI8QRG-
mAEUpECnUp80Tv>
    ] ;
    rdfs:label "Special educational needs kindergarten teacher (Branch PE-61)" .

### http://webprotege.stanford.edu/RD3GzPsmDjodjeWaXsGa30X
<http://webprotege.stanford.edu/RD3GzPsmDjodjeWaXsGa30X> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
    ] ;
    rdfs:label "European education school (secondary cycle)"^^xsd:string .

### http://webprotege.stanford.edu/RDBEoWu8go0W6VjahYmAITs
<http://webprotege.stanford.edu/RDBEoWu8go0W6VjahYmAITs> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RBAW2IixDqqK0elwVokB2Up> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RBAW2IixDqqK0elwVokB2Up>
    ] ;
    rdfs:label "Art senior high school (Lyceum) principal" .

### http://webprotege.stanford.edu/RDBxPur77czmonvtzSBOG15
<http://webprotege.stanford.edu/RDBxPur77czmonvtzSBOG15> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTWL4AfUaVGdrmQub54v0> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;

```



```

        owl:someValuesFrom <http://webprotege.stanford.edu/RjTWL4AfUaVG-
drmQub54v0>
        ];
        <http://webprotege.stanford.edu/R9BZWig1gDjbpYFHxzwG6q3> "classes={2.General second-
ary education school}"^^xsd:string ;
        rdfs:label "Philosophy teacher (Branch PE-02)" .

### http://webprotege.stanford.edu/RDDnrfsDj9LggQVvaVvBmhN
<http://webprotege.stanford.edu/RDDnrfsDj9LggQVvaVvBmhN> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDpd3rS16Dg7SWTpICAh4P4>
        ] ;
        rdfs:label "Educational quality supervisor" .

### http://webprotege.stanford.edu/RDERq33JMTGVb2lskmXJNwo
<http://webprotege.stanford.edu/RDERq33JMTGVb2lskmXJNwo> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RDaM8MppL3dSyOrtIqe64Nn> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RDaM8MppL3dSyOr-
tIqe64Nn>
        ] ;
        rdfs:label "Vocational high school (EPA.L.) principal" .

### http://webprotege.stanford.edu/RDJQ60C9ucwmXGmu6T9Qtkl
<http://webprotege.stanford.edu/RDJQ60C9ucwmXGmu6T9Qtkl> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RDO2FBSYBDtUI4gcwIkyB1M> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDO2FBSYBDtUI4gcwIkyB1M>
        ] ;
        rdfs:label "Foreign language and literature teacher" .

### http://webprotege.stanford.edu/RDKB5LCYENPVjBDvTHxPrGL
<http://webprotege.stanford.edu/RDKB5LCYENPVjBDvTHxPrGL> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RMI8QRGmAEUpECnUp80Tv> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RMI8QRG-
mAEUpECnUp80Tv>
        ] ;
        rdfs:label "Primary school teacher (Branch PE-70)" .

### http://webprotege.stanford.edu/RDO2FBSYBDtUI4gcwIkyB1M
<http://webprotege.stanford.edu/RDO2FBSYBDtUI4gcwIkyB1M> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/R8JYUrocIFGJXbcrt3wNDiV> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R8JYUrocIF-
GJXbcrt3wNDiV>
        ] ;
        rdfs:label "3.Common (primary & secondary) education teacher"^^xsd:string .

### http://webprotege.stanford.edu/RDPRmj2PsSaeRqQzM3ebRQc
<http://webprotege.stanford.edu/RDPRmj2PsSaeRqQzM3ebRQc> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RjTWL4AfUaVGdrmQub54v0> ,

```

```

[ rdf:type owl:Restriction ;
  owl:onProperty rdfs:subClassOf ;
  owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
];
rdfs:label "Religious education teacher (Branch PE-01)" .

### http://webprotege.stanford.edu/RDPTapBArWAB79DyxuWGhMz
<http://webprotege.stanford.edu/RDPTapBArWAB79DyxuWGhMz> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RrzVbKKEz7SD99yrWahBp2> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/RrzVbKKEz7SD99yrWahBp2>
  ] ;
  rdfs:label "Speech and language therapist teacher (Branch EEP-21)" .

### http://webprotege.stanford.edu/RDTkhgSvnHGVfmbVn5OEoC2
<http://webprotege.stanford.edu/RDTkhgSvnHGVfmbVn5OEoC2> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
  ] ;
  rdfs:label "Secondary church school"^^xsd:string .

### http://webprotege.stanford.edu/RDUZJzUGptPDKx0QhhrfzaT
<http://webprotege.stanford.edu/RDUZJzUGptPDKx0QhhrfzaT> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RDO2FBSYBDtUI4gcwIkyB1M> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDO2FBSYBDtUI4gcwIkyB1M>
  ] ;
  rdfs:label "Music teacher (Branch PE-79)" .

### http://webprotege.stanford.edu/RDWIqJf301vLERf4JYcNGCq
<http://webprotege.stanford.edu/RDWIqJf301vLERf4JYcNGCq> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
  ] ;
  rdfs:label "Computer programmers teacher (Branch TE-01.13)"^^xsd:string .

### http://webprotege.stanford.edu/RDaFijs13sMv24Ou8qxE1SE
<http://webprotege.stanford.edu/RDaFijs13sMv24Ou8qxE1SE> rdf:type owl:Class ;
  rdfs:subClassOf <http://webprotege.stanford.edu/RDhiKvosMjuGgpggeMByvfVK> ,
  [ rdf:type owl:Restriction ;
    owl:onProperty rdfs:subClassOf ;
    owl:someValuesFrom <http://webprotege.stanford.edu/RDhiK-
vosMjuGgpggeMByvfVK>
  ] ;
  rdfs:label "Secondary education teacher graduate of a secondary education institution (Branch
DE)"^^xsd:string .

### http://webprotege.stanford.edu/RDaM8MppL3dSyOrtIqe64Nn
<http://webprotege.stanford.edu/RDaM8MppL3dSyOrtIqe64Nn> rdf:type owl:Class ;

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rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
];
rdfs:label "Vocational educational school principal (= Διευθυντής)" .

```

```

### http://webprotege.stanford.edu/RDdLwLsgk22JrwfrK7UtzYK
<http://webprotege.stanford.edu/RDdLwLsgk22JrwfrK7UtzYK> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RCqaGsJeljQZIKExS2XF6o> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/RCqaGsJel-
jhQZIKExS2XF6o>
];
rdfs:label "Geology teacher (Branch PE-04.05)" .

```

```

### http://webprotege.stanford.edu/RDdgIAZjuDPmd7cNnswro39
<http://webprotege.stanford.edu/RDdgIAZjuDPmd7cNnswro39> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGuJk1ygRM> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8QBqlwHZyNjKVGuJk1ygRM>
];
rdfs:label "Deputy director (= Υποδιευθυντής) of greek-language primary school
abroad"^^xsd:string .

```

```

### http://webprotege.stanford.edu/RDgNoC6MCXt7IzISBV0CIMO
<http://webprotege.stanford.edu/RDgNoC6MCXt7IzISBV0CIMO> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
];
rdfs:label "Pilot or experimental school principal" .

```

```

### http://webprotege.stanford.edu/RDgTQOdgAavK8738Vqnt53C
<http://webprotege.stanford.edu/RDgTQOdgAavK8738Vqnt53C> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stan-
ford.edu/R0gpwItmF5lacyXWRODC0A>
];
rdfs:label "(Primary) educaton counsellor"^^xsd:string .

```

```

### http://webprotege.stanford.edu/RDh6bj3PfiH1i8GM1MdL9au
<http://webprotege.stanford.edu/RDh6bj3PfiH1i8GM1MdL9au> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSAuacmk> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSA-
uacmk>
];
rdfs:label "Civil engineering - architecture teacher (Branch PE-81)" .

```

```

### http://webprotege.stanford.edu/RDhiKvosMjuGgpgeMByvfVK

```

```

<http://webprotege.stanford.edu/RDhiKvosMjuGgpgemByvfVK> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R8JYUrocIFGJXbcrt3wNDiV> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R8JYUrocIF-
GJXbcrt3wNDiV>
    ] ;
    rdfs:label "2.Secondary education teacher"^^xsd:string .

### http://webprotege.stanford.edu/RDkLqDnQ0u141zaN7P8XfpL
<http://webprotege.stanford.edu/RDkLqDnQ0u141zaN7P8XfpL> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RzZWtoODXcfXNc8JjSxgl2>
    ] ;
    rdfs:label "Medical laboratory teacher (Branch PE-87.04)" .

### http://webprotege.stanford.edu/RDmo86wKNgFiyixGIC3Ebuh
<http://webprotege.stanford.edu/RDmo86wKNgFiyixGIC3Ebuh> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
    ] ;
    rdfs:label "Correctional facility"^^xsd:string .

### http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4
<http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7WQxIWxtK4TqTmv7USf6XX> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R7WQxIWxtK4TqTmv7USf6XX>
    ] ;
    rdfs:label "1.Primary education manager"^^xsd:string .

### http://webprotege.stanford.edu/RDqSZXT1F6gpUxMZti7qYxz
<http://webprotege.stanford.edu/RDqSZXT1F6gpUxMZti7qYxz> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCqaGsJeljhQZIKExS2XF6o> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RCqaGsJel-
jhQZIKExS2XF6o>
    ] ;
    rdfs:label "Naturalist teacher (Branch PE-04.03)" .

### http://webprotege.stanford.edu/RDuW3z27BT8HAusIUtjAVeO
<http://webprotege.stanford.edu/RDuW3z27BT8HAusIUtjAVeO> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCqaGsJeljhQZIKExS2XF6o> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RCqaGsJel-
jhQZIKExS2XF6o>
    ] ;
    rdfs:label "Chemistry teacher (Branch PE-04.02)" .

### http://webprotege.stanford.edu/RDvQHIEFck9tsb058uaYXfd

```

```

<http://webprotege.stanford.edu/RDvQHIEFCk9tsb058uaYXfd> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDTkhgSvnHGVfmbVn5OEoC2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDTkhgSvnHGVfmbVn5OEoC2>
    ] ;
    rdfs:label "Church senior high school"^^xsd:string .

### http://webprotege.stanford.edu/RDxcEk8bb7u7S8XTMLjj46c
<http://webprotege.stanford.edu/RDxcEk8bb7u7S8XTMLjj46c> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGuJk1ygRM> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8QBqlwHZyNjKVGuJk1ygRM>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of greek-language kindergarten
abroad"^^xsd:string .

### http://webprotege.stanford.edu/RDy5tlOP6kqm6MQvtGZu7fk
<http://webprotege.stanford.edu/RDy5tlOP6kqm6MQvtGZu7fk> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDJQ60C9ucwmxGmu6T9Qtkl> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDJQ60C9ucwmxGmu6T9Qtkl>
    ] ;
    rdfs:label "Spanish literature teacher (Branch PE-40)" .

### http://webprotege.stanford.edu/RDyWNch6HKMJDSNcm3jOywn
<http://webprotege.stanford.edu/RDyWNch6HKMJDSNcm3jOywn> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBJ5yH> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RCaVtu-
iEZAaHGq5GXNBJ5yH>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of a unified special vocational high school / senior high school (EN.E.E.GY.L.)" .

### http://webprotege.stanford.edu/RHklh7bXoI0XYjRVtWTi9P
<http://webprotege.stanford.edu/RHklh7bXoI0XYjRVtWTi9P> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7LX549fFmHUTt86tXh72xK> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R7LX549fFmHUTt86tXh72xK>
    ] ;
    rdfs:label "Special kindergarten principal" .

### http://webprotege.stanford.edu/RI8WFFADtBL7vHVEuLLzBK
<http://webprotege.stanford.edu/RI8WFFADtBL7vHVEuLLzBK> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RMI8QRGmAEUpECnUp80Tv> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RMI8QRG-
mAEUpECnUp80Tv>
    ] ;
    rdfs:label "Special educational teacher in primary school (Branch PE-71)" .

```

```

### http://webprotege.stanford.edu/RJDd1XoeQnqc43XHNriuXi
<http://webprotege.stanford.edu/RJDd1XoeQnqc43XHNriuXi> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInc> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInc>
        ] ;
    rdfs:label "Pilot vocational senior high school"^^xsd:string .

### http://webprotege.stanford.edu/RJLtKB8oEkT3PBOLJ1zwB4
<http://webprotege.stanford.edu/RJLtKB8oEkT3PBOLJ1zwB4> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
        ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of a minority high school / senior high school" .

### http://webprotege.stanford.edu/RMI8QRGmAEUpECnUp80Tv
<http://webprotege.stanford.edu/RMI8QRGmAEUpECnUp80Tv> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R8JYUrocIFGJXbert3wNDiV> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R8JYUrocIF-
GJXbert3wNDiV>
        ] ;
    rdfs:label "1.Primary education teacher"^^xsd:string .

### http://webprotege.stanford.edu/RMSCjc4BYW6pDgXayoyOeH
<http://webprotege.stanford.edu/RMSCjc4BYW6pDgXayoyOeH> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7yDCJXtL1UCO8CvCqOReuh> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R7yDCJXtL1UCO8CvCqO-
Reuh>
        ] ;
    rdfs:label "Intercultural junior high school"^^xsd:string .

### http://webprotege.stanford.edu/RMhFQBk7KyjYBk2BTar3S5
<http://webprotege.stanford.edu/RMhFQBk7KyjYBk2BTar3S5> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDgNoC6MCXt7IzISBV0CIMO> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDgNoC6MCXt7IzISBV0CIMO>
        ] ;
    rdfs:label "Pilot or experimental senior high school (Lyceum) principal" .

### http://webprotege.stanford.edu/RMuZMNQIPZbkoygrr9D0za
<http://webprotege.stanford.edu/RMuZMNQIPZbkoygrr9D0za> rdf:type owl:Class ;
    rdfs:label "Employment status" .

### http://webprotege.stanford.edu/RNi8bjvKOj9EBHizKtlw4
<http://webprotege.stanford.edu/RNi8bjvKOj9EBHizKtlw4> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>
        ] ;

```

rdfs:label "Head of educational quality (Secondary Education)" .

```
### http://webprotege.stanford.edu/ROR3wQUMuxe3fJVKB3kHnl
<http://webprotege.stanford.edu/ROR3wQUMuxe3fJVKB3kHnl> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RSZpAlyx4IXTDCrd58LMIL> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RSZpAlyx4IXTD-
Crd58LMIL>
    ] ;
    rdfs:label "Regional head of educational quality" .
```

```
### http://webprotege.stanford.edu/RPOuEcaXhMXnaByJZA0lij
<http://webprotege.stanford.edu/RPOuEcaXhMXnaByJZA0lij> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDO2FBSYBDtUI4gcwIkyB1M> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDO2FBSYBDtUI4gcwIkyB1M>
    ] ;
    rdfs:label "Theatrical education teacher (Branch PE-91)" .
```

```
### http://webprotege.stanford.edu/RPyXtz1zBkNF5IONLRGAuN
<http://webprotege.stanford.edu/RPyXtz1zBkNF5IONLRGAuN> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDaFijs13sMv24Ou8qxE1SE> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDa-
Fijs13sMv24Ou8qxE1SE>
    ] ;
    rdfs:label "Silversmith teacher (Branch DE-01.15)" .
```

```
### http://webprotege.stanford.edu/RQb3WdPrS7vvUnsjM8oZgT
<http://webprotege.stanford.edu/RQb3WdPrS7vvUnsjM8oZgT> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RrHhTsXQsJvx16gaR9WSpB> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RrHhTsXQsJvx16gaR9WSpB>
    ] ;
    rdfs:label "Business studies and economics teacher (Branch TE-02.04)" .
```

```
### http://webprotege.stanford.edu/RRescbC7UYUbebkbrWisZU
<http://webprotege.stanford.edu/RRescbC7UYUbebkbrWisZU> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDpd3rS16Dg7SWTpICAh4P4> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDpd3rS16Dg7SWTpICAh4P4>
    ] ;
    rdfs:label "Head (= Προϊστάμενος) of the educational affairs department of the primary educa-
tion directorate"^^xsd:string .
```

```
### http://webprotege.stanford.edu/RSZpAlyx4IXTDCrd58LMIL
<http://webprotege.stanford.edu/RSZpAlyx4IXTDCrd58LMIL> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7WQxlWxtK4TqTmv7USf6XX> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R7WQxlWxtK4TqTmv7USf6XX>
    ] ;
```

rdfs:label "3.Common (primary & secondary) education manager" .

```
### http://webprotege.stanford.edu/RT7rSTVe1ty91IiWruEQhE
<http://webprotege.stanford.edu/RT7rSTVe1ty91IiWruEQhE> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
        ] ;
    rdfs:label "Radiologist assistant teacher" .
```

```
### http://webprotege.stanford.edu/RTHjJSqLvhpKRDTpmlgdSB
<http://webprotege.stanford.edu/RTHjJSqLvhpKRDTpmlgdSB> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDJQ60C9ucwmxGmu6T9Qtkl> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDJQ60C9ucwmxGmu6T9Qtkl>
        ] ;
    rdfs:label "English language teacher (Branch PE-06)" .
```

```
### http://webprotege.stanford.edu/RVW949QgUEbFgF0jKuhSUU
<http://webprotege.stanford.edu/RVW949QgUEbFgF0jKuhSUU> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RrHhTsXQsJvxl6gaR9WSpB> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RrHhTsXQsJvxl6gaR9WSpB>
        ] ;
    rdfs:label "Engineering teacher (Branch TE-02.02)" .
```

```
### http://webprotege.stanford.edu/RW4HPHlqenBZWqM4F1oc6
<http://webprotege.stanford.edu/RW4HPHlqenBZWqM4F1oc6> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDUZJzUGptPDKx0QhhrfzaT> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDUZJzUGptPDKx0QhhrfzaT>
        ] ;
    rdfs:label "Music technology, audio and musical instrument technologists teacher (Branch PE-
79.02)" .
```

```
### http://webprotege.stanford.edu/RW4a3JpPTnOBvgKCAgdDGh
<http://webprotege.stanford.edu/RW4a3JpPTnOBvgKCAgdDGh> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
        ] ;
    rdfs:label "Minority school"^^xsd:string .
```

```
### http://webprotege.stanford.edu/RW8wUbWFn4sdW1HXyg0186
<http://webprotege.stanford.edu/RW8wUbWFn4sdW1HXyg0186> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSAuacmk> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSA-
uacmk>
        ] ;
```



```

];
rdfs:label "Electronics teacher (Branch PE-84)" .

### http://webprotege.stanford.edu/RWDYjA0Co9NtbVr1luyhDH
<http://webprotege.stanford.edu/RWDYjA0Co9NtbVr1luyhDH> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RDO2FBSYBDtUI4gcwIkyB1M> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDO2FBSYBDtUI4gcwIkyB1M>
];
rdfs:label "Physical education teacher (Branch PE-11)" .

### http://webprotege.stanford.edu/RWofHeBWMKAAkE8s2Itdh9
<http://webprotege.stanford.edu/RWofHeBWMKAAkE8s2Itdh9> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RBAW2IxDqqK0elwVOKB2Up> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stan-
ford.edu/RBAW2IxDqqK0elwVOKB2Up>
];
rdfs:label "Art high school (Gymnasium) principal" .

### http://webprotege.stanford.edu/RWs2gWddv7d7eONMRPhbFD
<http://webprotege.stanford.edu/RWs2gWddv7d7eONMRPhbFD> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RCHZz2cizimUoaFyxFOt0rZ> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/RCHZz2cizimUoaFyx-
FOt0rZ>
];
rdfs:label "Head (=Προϊστάμενος) of primary school" .

### http://webprotege.stanford.edu/RXyPCVnC9oszRv5Oj3j1wU
<http://webprotege.stanford.edu/RXyPCVnC9oszRv5Oj3j1wU> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/R8QBqlwHZyNjKVGUjK1ygRM> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stan-
ford.edu/R8QBqlwHZyNjKVGUjK1ygRM>
];
rdfs:label "Deputy director (= Υποδιευθυντής) of correctional facility school"^^xsd:string .

### http://webprotege.stanford.edu/RZaLWpiSCoUEuAiYeoEcsU
<http://webprotege.stanford.edu/RZaLWpiSCoUEuAiYeoEcsU> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RDO2FBSYBDtUI4gcwIkyB1M> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDO2FBSYBDtUI4gcwIkyB1M>
];
rdfs:label "Art teacher (Branch PE-08)" .

### http://webprotege.stanford.edu/RaNNpyiQHLVKQMjZe1vpZx
<http://webprotege.stanford.edu/RaNNpyiQHLVKQMjZe1vpZx> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/Rxi-
dZfAfwVbmTWUa6FQJaP>

```

```
];
rdfs:label "Head (=Προϊστάμενος) of the educational affairs department of the secondary education directorate"^^xsd:string .
```

```
### http://webprotege.stanford.edu/Rb7BFsK0nAL87mBj43EarR
<http://webprotege.stanford.edu/Rb7BFsK0nAL87mBj43EarR> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/R6IJAauxDYTKjb6qt4XVK> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/R6IJAauxDYTKjb6qt4XVK>
];
rdfs:label "Intercultural education high school (Gymnasium) principal" .
```

```
### http://webprotege.stanford.edu/RbOAWZDQro8cn0oixVdKWO
<http://webprotege.stanford.edu/RbOAWZDQro8cn0oixVdKWO> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RBitOEgKnxhu57tfYb5mCHQ> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/RBitOEgKnxhu57tfYb5mCHQ>
];
```

```
rdfs:label "Music senior high school (Lyceum)"^^xsd:string .
```

```
### http://webprotege.stanford.edu/RbirLdHWeU4iLPJ5tMIQVN
<http://webprotege.stanford.edu/RbirLdHWeU4iLPJ5tMIQVN> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RCpMPlbmNfKctOGtEShfUpL> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/RCpMPlbmNfKctOGtEShfUpL>
];
```

```
rdfs:label "4.Special needs secondary education school"^^xsd:string .
```

```
### http://webprotege.stanford.edu/Rc5C2Llhq27pcyGCNVcgrR
<http://webprotege.stanford.edu/Rc5C2Llhq27pcyGCNVcgrR> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RhQO1z6KR7CROeyHiJR7Z> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/RhQO1z6KR7CROeyHiJR7Z>
];
```

```
rdfs:label "Product design and manufacturing teacher (Branch PE-89.02)" .
```

```
### http://webprotege.stanford.edu/RcCEny9eQx9gUafzsNXVMd
<http://webprotege.stanford.edu/RcCEny9eQx9gUafzsNXVMd> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/RB2kneuDJcH8CVLSyu7GBd> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/RB2kneuDJcH8CVLSyu7GBd>
];
```

```
rdfs:label "Pilot or experimental senior high school"^^xsd:string .
```

```
### http://webprotege.stanford.edu/RcyWHKvtin3QnKq6yIpj49
<http://webprotege.stanford.edu/RcyWHKvtin3QnKq6yIpj49> rdf:type owl:Class ;
rdfs:subClassOf <http://webprotege.stanford.edu/R6IJAauxDYTKjb6qt4XVK> ,
[ rdf:type owl:Restriction ;
owl:onProperty rdfs:subClassOf ;
owl:someValuesFrom <http://webprotege.stanford.edu/R6IJAauxDYTKjb6qt4XVK>
];
```

```

        rdfs:label "Intercultural education senior high school (Lyceum) principal" .

### http://webprotege.stanford.edu/RdTPOAWf5144E1TxCc7Gns
<http://webprotege.stanford.edu/RdTPOAWf5144E1TxCc7Gns> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RhQO1z6KR7CROeyHiJR7Z> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RhQO1z6KR7CRO-
eyHiJR7Z>
        ] ;
        rdfs:label "Artistic studies teacher (Branch PE-89.01)" .

### http://webprotege.stanford.edu/RdoYUEUd44tB1mZHJYYmLX
<http://webprotege.stanford.edu/RdoYUEUd44tB1mZHJYYmLX> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBJ5yH> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RCaVtu-
iEZAaHGq5GXNBJ5yH>
        ] ;
        rdfs:label "Deputy director (= Υποδιευθυντής) of special vocational education laboratories
(E.E.E.EK.)" .

### http://webprotege.stanford.edu/Rdu2tXSgiPe76rfMvne3JI
<http://webprotege.stanford.edu/Rdu2tXSgiPe76rfMvne3JI> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RrHhTsXQsJvx16gaR9WSpB> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RrHhTsXQsJvx16gaR9WSpB>
        ] ;
        rdfs:label "Product design and manufacturing teacher (Branch TE-02.06)" .

### http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS
<http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RCpMPlbmNfKctOGtEShfUpL> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RCpMPlbmNfKctOG-
tEShfUpL>
        ] ;
        rdfs:label "2.General secondary education school"^^xsd:string .

### http://webprotege.stanford.edu/RgcXOnOirRmWX3UnStdq0d
<http://webprotege.stanford.edu/RgcXOnOirRmWX3UnStdq0d> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/RCaVtuiEZAaHGq5GXNBJ5yH> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RCaVtu-
iEZAaHGq5GXNBJ5yH>
        ] ;
        rdfs:label "Deputy director (= Υποδιευθυντής) of special needs high school principal" .

### http://webprotege.stanford.edu/Rgjr1ZfQFFhtvxT3WaNE5N
<http://webprotege.stanford.edu/Rgjr1ZfQFFhtvxT3WaNE5N> rdf:type owl:Class ;
        rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
        ] ;

```

rdfs:label "Deputy director (= Υποδιευθυντής) of a music high school/ senior high school - (Gymnasium/ Lyceum)"^^xsd:string .

```
### http://webprotege.stanford.edu/RhGF3009umWy9aP7ObJBOF
<http://webprotege.stanford.edu/RhGF3009umWy9aP7ObJBOF> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCHZz2cizimUoaFyxFOt0rZ> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RCHZz2cizimUoaFyx-
FOt0rZ>
    ] ;
    rdfs:label "Head (=Προϊστάμενος) of experimental kindergarten" .
```

```
### http://webprotege.stanford.edu/RhQO1z6KR7CROeyHiJR7Z
<http://webprotege.stanford.edu/RhQO1z6KR7CROeyHiJR7Z> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
    ] ;
    rdfs:label "Applied arts teacher (Branch PE-89)" .
```

```
### http://webprotege.stanford.edu/Ri1Q9B7sAiP5PbQf79XNtM
<http://webprotege.stanford.edu/Ri1Q9B7sAiP5PbQf79XNtM> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCHZz2cizimUoaFyxFOt0rZ> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RCHZz2cizimUoaFyx-
FOt0rZ>
    ] ;
    rdfs:label "Head (=Προϊστάμενος) of experimental primary school" .
```

```
### http://webprotege.stanford.edu/Ri6zyn8sbN4juWbflhoNP
<http://webprotege.stanford.edu/Ri6zyn8sbN4juWbflhoNP> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R9kGF10iqTynlggYj0DbInC>
    ] ;
    rdfs:label "Vocational senior high school (EPA.L.)"^^xsd:string .
```

```
### http://webprotege.stanford.edu/Riu2KnedIBHiVqUydzKYiK
<http://webprotege.stanford.edu/Riu2KnedIBHiVqUydzKYiK> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9o64JtFVsze5rYg8blhWCr> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R9o64JtFVsze5rYg8blhWCr>
    ] ;
    rdfs:label "Head of special primary school" .
```

```
### http://webprotege.stanford.edu/RjJ4WTCcGW1tc2nCCrJXdi
<http://webprotege.stanford.edu/RjJ4WTCcGW1tc2nCCrJXdi> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDaFijs13sMv24Ou8qxE1SE> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDa-
Fijs13sMv24Ou8qxE1SE>
    ] ;
    rdfs:label "Electricians - electronics teacher (Branch DE02.01)"^^xsd:string .
```

```

### http://webprotege.stanford.edu/RjPgXfTacQiiDKgS0g8CLl
<http://webprotege.stanford.edu/RjPgXfTacQiiDKgS0g8CLl> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R99ozR6PSfzx16XeCOiymcr> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R99ozR6PSfzx16Xe-
COiymcr>
    ] ;
    rdfs:label "Primary School"^^xsd:string .

### http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0
<http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDhiKvosMjuGgpgeMByvfVK> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDhiK-
vosMjuGgpgeMByvfVK>
    ] ;
    rdfs:label "Secondary education teacher graduate of a higher education institution (Branch
PE)"^^xsd:string .

### http://webprotege.stanford.edu/RmhwYvq9wP9Rwmc3V53mT7
<http://webprotege.stanford.edu/RmhwYvq9wP9Rwmc3V53mT7> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RCHZz2cizimUoaFyxFOt0rZ> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RCHZz2cizimUoaFyx-
FOt0rZ>
    ] ;
    rdfs:label "Head (=Προϊστάμενος) of kindergarten" .

### http://webprotege.stanford.edu/Rmx1lL2Pm4fqIyiR7TJTqR
<http://webprotege.stanford.edu/Rmx1lL2Pm4fqIyiR7TJTqR> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RvYFnKgOlPHvnYYiR7KEq1> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RvYFnKgOlPHvnY-
YiR7KEq1>
    ] ;
    rdfs:label "Juvenile correctional facility senior high school"^^xsd:string .

### http://webprotege.stanford.edu/Rp0lpPfs1DS2Gqts1aaY0f
<http://webprotege.stanford.edu/Rp0lpPfs1DS2Gqts1aaY0f> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
    ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of a european education school (secondary cycle)"
.

### http://webprotege.stanford.edu/Rq2jW2K3FdSP1uYaqL2vHc
<http://webprotege.stanford.edu/Rq2jW2K3FdSP1uYaqL2vHc> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RBSS6UcPpWVBQYqETKOW5Sn> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RBSS6UcPpWVBQYqETKOW5Sn>
    ] ;
    rdfs:label "Plant production teacher (Branch PE-88.02)" .

```

```

### http://webprotege.stanford.edu/RqbGDC1obaCwHzSFKbeUna
<http://webprotege.stanford.edu/RqbGDC1obaCwHzSFKbeUna> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2>
    ] ;
    rdfs:label "Medical science teacher (Branch PE-87.01)" .

```

```

### http://webprotege.stanford.edu/RqdAbCAAd3XkEwde5jsRVJ6
<http://webprotege.stanford.edu/RqdAbCAAd3XkEwde5jsRVJ6> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
    ] ;
    rdfs:label "Medical and biological laboratory assistant teacher (Branch TE-01.29)" .

```

```

### http://webprotege.stanford.edu/RrHhTsXQsJvxl6gaR9WSpB
<http://webprotege.stanford.edu/RrHhTsXQsJvxl6gaR9WSpB> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDhiKvosMjuGgpggeMByvfVK> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stanford.edu/RDhiK-
vosMjuGgpggeMByvfVK>
    ] ;
    rdfs:label "Secondary education teacher graduate of a technological education institution (Branch
TE.02 & TE.03)"^^xsd:string .

```

```

### http://webprotege.stanford.edu/RrLqqezZiIMDVr2ksOBk1z
<http://webprotege.stanford.edu/RrLqqezZiIMDVr2ksOBk1z> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9NeHvfHc0srq1EQFsp2Xdj> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9NeHvfHc0srq1EQFsp2Xdj>
    ] ;
    rdfs:label "Music senior high school (Lyceum) principal" .

```

```

### http://webprotege.stanford.edu/RrzVbKKEz7SD99yrWahBp2
<http://webprotege.stanford.edu/RrzVbKKEz7SD99yrWahBp2> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDO2FBSYBDtUI4gcwIkyB1M> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDO2FBSYBDtUI4gcwIkyB1M>
    ] ;
    rdfs:label "Special education staff (EEP)"^^xsd:string .

```

```

### http://webprotege.stanford.edu/Ru9ApEIToxuVIBVKZ0V9iF
<http://webprotege.stanford.edu/Ru9ApEIToxuVIBVKZ0V9iF> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
    [ rdf:type owl:Restriction ;
      owl:onProperty rdfs:subClassOf ;
      owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
    ] ;
    rdfs:label "Cosmetology teacher (Branch TE-01.20)" .

```

```

### http://webprotege.stanford.edu/RuCvGuRntn80o3bqSii1a0
<http://webprotege.stanford.edu/RuCvGuRntn80o3bqSii1a0> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7LX549fFmHUTt86tXh72xK> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/R7LX549fFmHUTt86tXh72xK>
        ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of special kindergarten" .

### http://webprotege.stanford.edu/RvYFnKgOlPHvnYYiR7KEq1
<http://webprotege.stanford.edu/RvYFnKgOlPHvnYYiR7KEq1> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUOmoS> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RfuZBcnuHe50jbFLsUO-
moS>
        ] ;
    rdfs:label "Correctional facility"^^xsd:string .

### http://webprotege.stanford.edu/Rw0IVHMIWFkuJH0t5giX01
<http://webprotege.stanford.edu/Rw0IVHMIWFkuJH0t5giX01> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/R7L1vq5hv7kMpZaq2ZIJdit>
        ] ;
    rdfs:label "Deputy director (= Υποδιευθυντής) of a vocational high school (EPA.L.)" .

### http://webprotege.stanford.edu/RxIXDtQUeZYLbYGddDOhK
<http://webprotege.stanford.edu/RxIXDtQUeZYLbYGddDOhK> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RDUZJzUGptPDKx0QhhrfzaT> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/RDUZJzUGptPDKx0QhhrfzaT>
        ] ;
    rdfs:label "Music science teacher (Branch PE-79.01)" .

### http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP
<http://webprotege.stanford.edu/RxidZfAfwVbmTWUa6FQJaP> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R7WQx1WxtK4TqTmv7USf6XX> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/R7WQx1WxtK4TqTmv7USf6XX>
        ] ;
    rdfs:label "2.Secondary education manager"^^xsd:string .

### http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSAuacmk
<http://webprotege.stanford.edu/RyeSXF8aHoG5nfeSAuacmk> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
        ] ;
    rdfs:label "Engineering teacher" .

```

```
### http://webprotege.stanford.edu/RyzJdnjyoLGjJuiH05CqKf
<http://webprotege.stanford.edu/RyzJdnjyoLGjJuiH05CqKf> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/R9cRPiy31KJSawjlmCMDEsd> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stan-
ford.edu/R9cRPiy31KJSawjlmCMDEsd>
        ] ;
    rdfs:label "Electrician teacher (Branch TE-01.06)" .
```

```
### http://webprotege.stanford.edu/RzHwcXRnjNcHK9EIAtfRkr
<http://webprotege.stanford.edu/RzHwcXRnjNcHK9EIAtfRkr> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RPOuEcaXhMXnaByJZA0lij> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RPOuEca-
XhMXnaByJZA0lij>
        ] ;
    rdfs:label "Theatre studies teacher (Branch PE-91.01)" .
```

```
### http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2
<http://webprotege.stanford.edu/RzZWtoODXcfXNc8JjSxgl2> rdf:type owl:Class ;
    rdfs:subClassOf <http://webprotege.stanford.edu/RjTwL4AfUaVGdrmQub54v0> ,
        [ rdf:type owl:Restriction ;
          owl:onProperty rdfs:subClassOf ;
          owl:someValuesFrom <http://webprotege.stanford.edu/RjTwL4AfUaVG-
drmQub54v0>
        ] ;
    rdfs:label "Health, welfare, wellness education teacher (Branch PE-87)" .
```

```
### http://www.w3.org/2002/07/owl#Thing
owl:Thing rdfs:label "Teaching staff"@en-gb .
### Generated by the OWL API (version 4.5.13) https://github.com/owlcs/owlapi
```


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