Conceptual Content in Terms of Preuniversity Education (PUE) Textbooks

Linguistics

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Abstract

The purpose of this paper is the identification of terminology in science textbooks to PUE, focusing on the accuracy of the terms and their definitions.The methodology used is an exhaustive collection of terminology in science textbooks to PUE in Albania. The review of expression of understanding object- conceptual of the terms of the natural sciences, as well as the explanation of the content of the term by definition, are techniques used to achieve this goal. Scientific and technical terminology PUE texts include the basic science terms, that make education curriculum. The compilers of the texts tend to use increasingly Albanian terms that replace foreign terms. However are noticed uses of terms that do not correspond exactly with the foreign term, double terms that burden the terminological system. In textbooks, equally important are the definitions that explain the content of nocionore units. Long and incomplete, data definitions between synonyms, are hampering the understanding of the content of the term. Such problems will find solutions through normative explanatory dictionaries that determine with scientific accuracy the nocionore lexical value of each edge.

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"Every discipline, and for a very good reason why any science, there is a need for a set of terms, defined rigorously, which it notes, notions that are useful. This whole terminology of terms represents." (Metzler Lexicon Sprache 2005: 679). In this explanation is noted as a feature of the term accuracy, as well as the inherent connection term -notion.

Objects, phenomena and notions of science and technology, create systems and microsystems within a field and between several fields of knowledge, which are actualized and acquired through the names and relevant terms, which interlace elements of national and international language. In scientific and technical texts in undergraduate education, occupy important basic terms (in fields of knowledge which considered) and their definitions. The accuracy and the clarity of the term , the accuracy and clarity of his explanation by definition , has inherent value for accuracy and clarity with which this notion will become part of scientific training of students. Lack of clarity threatens to derail the systematic connection of concepts to which it belongs, thereby severing - systemic coherence of knowledge. Since scientific knowledge is obtained full is necessary the aware appropriation of every link, every term - concept that constitutes the microsystem where the term is part. "Systemic links between the terms have as initial base the proximity or the semantic one value meaning therefore the meaning as linguistic categories (lexicology) , but the notion as logical categories." (Duro 1984: 132)

The terms are offered to users of texts (pre-university students) in a systematic way through the relevant terminology systems. The essential texts in question (in accordance with their didactic object design) are used within the conceptual terminology. Although is composed of key terms of any science, the terminology of pre-university education texts, appears complete, systematic , but also interesting in terms of conceptual load that it reveals.

"The absolute and systemic character is conditioned by systemic nature of the concept itself." (Duro, 2009: 45). So the scientific knowledge that are gained in the undergraduate education, have systemic character. In this system of notions are distinct main notions, derivative, composite, basic notions and a number of notions

borrowed from related sciences. In the terminology, that responds to these concepts, are interlaced - word terms, phrase – terms expressed between the linguistic tools and symbols e.g. *creature, cell, herbaceous plants, subject properties, chemical element, body , energy, interaction strength HCL, NaOH, F* (strength and measurement unit of electrical capacity), *m / s* (speed unit) etc.

Taking as a terminological principle evaluation criteria one concept –one term, we note an overload variants of expressions for the same concepts. The PUE in textbooks, are often present doubled formations that are created by the opposition of the Albanian term and the foreign term. For example *covering tissue (epithelial) , diffusion (diffusion), liquefaction (condensation), energy of movement or kinetic energy, clutch convergent beam (summary), dissolution or hydrolysis of macromolecules, dielectric – dividing* etc. It happens that the opposition is created by the juxtaposition of two Albanian terms e.g. c*onductor -transmission stratification -precipitation* ect. In coverage of scientific knowledge, aiming aware of their embezzlement, the embedding of the notion behind a name (term) marks the only full unification of the term itself. A.Duro says " ... Doublet formations charging systems terminology , affect the relationships of one understanding notion - term , on the other hand also inhibit the instilling of the notion after a single name to create with it a single organic unit." (Duro 1989: 659) Considering the PUE users texts , their formation and linguistic research, we believe that the attention should be paid to cleaning the terminology of foreign terms not only aiming using Albanian terms, but also for their unification. And in doublet that are encountered in the texts in question, formed by the confrontations from foreign-term and albanian- term, Albanian – term Albanian term, sometimes we notice inaccuracies in expressing one valued notions. E.g. in physic textbooks are used foreign **dielectric** terms and the **distinguished** Albanian - term. The Albanian term clearly expresses the notion rather than that of foreign. Motivation shot of the dividing term has distinguished the origin of the foreign term. Therefore, we believe that the emergence of the dielectric term in terminological physics system is already irrelevant.

Likewise, in the text "Dituri Natyre 5'', students face in learning the same topic two terms that should mark a single concept: global **warming**, greenhouse effect and global - **heating** effect.. (Dituri natyre 5 2008: 73) Of course in this case we are not dealing with synonymy. As part of the general lexicon these two words have not the same meaning, not even related, " **heating** action according to verb excite, do get hot = hot or hotter, give heat, emits heat; Heat- action verbs and the condition of the heats, do warm = warm, emits warmth . " (Fjalori i gj.sh. 2006: 688.702) In physics **the warming** is a process related to the change of the body temperature (or system) without change of the matter, while heat is related to the process of energy transmission without changing the temperature. In this sense, the heat is a term that includes heating. So the correct term marking greenhouse is global **warming.**

Not infrequently the competition between the two terms synonymous is not temporary. So in the physics terminology we face terms ***conductor (përcjellës*)** and ***conductor (përçues*),** used next to each other and instead of each other. To the formation, both these words - terms are derived with the prefix *for* - that received two names deverbative action, equipped with suffix. As word-topic conductor (përcjellës)[8] has served the participle bring out + suffix -es, while the conductors' word- topic is Gege participle + the suffix - s conductivity. In "Fjalori i Gjuhës Shqipe1980" as a verb haul given the opposite meaning to the verb bring (Fjalori i gj.sh. 1980: 272). So action names formed by two verbs with opposite meanings must have value uses distinct from one another. We can rightly say that, word –term conductor (përcjellës) and conductor (përçues) terms or concepts derived from their conductivity and conductivity, are not equivalent and cannot be used to each other. In the design of a text should be done very carefully in selecting the most motivated term because "... convenient term gives form and life to the notion and makes it spread and withstand time." (Leka 1989: 645)

[8] A.Xhuvani and E. Çabej are among the persons who formed words with the prefix for - , bring the form përçuas (përçoj) and përsjellës (përsjell). See A.Xhuvani, The Work, 1980, fq.395.

Another issue that we wish to pose is the clarity of the explanation of the term by definition. In primary terminological knowledge is the exact expression of the notion through the term, the inherent relationship between form and content. In DIN 2342 (1992: 3) term is defined as consisting pair of concept and its name as an element of terminology. While in the "Fjalori i Gjuhës Shqipe 2006" term is explained: Denomination with a word or a phrase of a concept in a field of science, technology, art. (Fjalori i Gjuhës Shqipe 2006: 1085) But when we talk about teaching texts, of course, the attention goes to the definition, explanation of the concept. Inside the definition are provided ready restrictive concept and its features, which define and clarify the concept of the other concepts and differ from the system to which it belongs.

In the explanation of a term, in a definition, it is not said to rank all features of the concept, but any definition, according to the purpose that suits to the particular knowledge, reflects the essential distinguished features of the term.

For the theory terminology, definitions have special significance, because these concepts are in the spotlight and these must be described accurately by means of language. The definition and explanation of terms clearly and precisely is a necessary condition in PUE textbooks. "The definition may be compared to a mathematical equation, the left side of it is the name that expresses the notion and the right side is the description of the notion."(Arntz; Picht; Mayer 2009: 60) The importance of a valid definition increases, when we consider that often the users of the text, are also parents who seek to help their children in school performance .

In the didactic experience of drafting texts in Albania, are outlined commendable achievements. However in terms of altertext, at times are observed uncertainty and inaccuracies in the didactic criteria that must meet definitions that are: scientific accuracy, explanatory clarity and brevity .

In the text "Dituri nature 5", we find this definition for Galaxy: *Stars, nebulae and their communities make up galaxy*. (Dituri Natyre 2008 :5) In natural sciences is selected to work with the inductive method. It is a didactic requirement that is defined in stages, from the easiest to the most difficult. Before the concept galaxy is given, the definition should include star concepts, planet, and solar system. In the above definition, the word nebula is irrelevant. In astrophysics, the science that studies the galaxy, there is no such term. In the "Fjalori i Gjuhës Shqipe 2006", the name of the *nebula* in its third meaning appears as explaining astronomy term "3. astr. A big pile of heavenly bodies that look like fog. "(Fjalori i gj. sh. 2006: 637) in the text "Fizika 4" we find the correct definition that would be useful to include in textbooks ''Dituri Natyre 5". *Our solar system and billions of others like him form our Galaxy, the Milky Way*. (Fizika 4, 2008: 326)

In "Dituri Natyre 5" students find this definition: *Comets (stars with tail) are heaps of ice and remaining prairie since the formation of the solar system*. (Dituri Natyre, 2008: 6) Syntagma stars with tail would fit properly to a people story, a fairy tale, but not a scientific explanation in a textbook. For more the conceptual unit steppe is a tem in geography, and has no nocionore connection with astrophysics. The clear-minded and accurate definition would be: *Comets are bodies of ice composed of different subjects, mixed with powders*. Its tail is formed by evaporation when it approaches land. (Fizika 4, 2008: 330)

Not frequently are created confusions of terms in the context of a definition. Consequently, the concept is not explained. In "Dituri Natyre 5" have: *Heat is a form of energy that comes mainly from sunlight and we express it in terms of temperature*. (Dituri Natyre 5, 2008: 90) . No doubt that there is not some temperature terms: while it is only a notion, labeled with a term. Temperature is the size that "expresses the degree of thermal motion of the particles that make up the system." (Manuali I Fizikes 1987: 246) But the "heat is a measure of thermal exchange between a body (and system) with the surrounding environment without changes to external parameters." (Manuali i Fizikës 1987: 248)

The adoption of the concept from the students depends on the clarity of his explanation by definition. In the texts under consideration we notice that definitions often suffer from inaccurate linguistic constructions. And uncertainties are transferred from one definition to another. In ''Fizika 6'' we find the definition: *Juices are flowing bodies*. (Fizika 6, 2008: 9) In the same text, "Fizika 6", are given these definitions: *Every element of nature in physics is called body*. (Fizika 6 2011:6) This definition is an abstract to a student who just begins to study the science of physics. Followed on the next page*: It from which a body is composed, is called subject*. (Fizika 6, 2011: 7) A definition of any kind whatsoever it is, it cannot start with a third personal pronoun *"... they* (our note *impersonal pronouns*) *of the third is regularly used to not repeat a name that* it is mentioned before. (Akademia 2002: 220) In our case, it does not replace the personal pronoun any notion mentioned before. This pronoun does not refer to whom, after the definition of the term is given emphatically in a sentence, semantically is close within a sentence, and not in a period; from the clarity and scientific linguistic expression and is condition the clear context of the real term t and the logical acquisition by the students. Let's turn our eyes to the definition of the same term given to subjects in the first textbook written in Albanian by sister Qiriazi 1899: *Raw is called all of which are made (up) all the things in space, such as stone, water, mud, shingle*' etc. Each piece of this case is called the body, such as card, ring, knife, etc. . . . (Fizika 1899: 1) It is immediately apparent that the terms are explained in the definitions listed in logical order, one after another, that it provides the active and logical acquisition of the respective terms.

Let's stop at some examples that violate the conceptual differentiation of scientific and technical terms. "The bodies of equal size and consisting of the same subject, contain the same amount of matter. (Fizika 6, 2008: 15) The amount of subject that contains a body - is expressed with the physical size measure (Fizika 6, 2008: 15) the bodies have an internal quality to them, which is called measure. The measure indicates the amount of the subject that contents that body. (Fizika 7 2008:12) In these definitions that explain the systemic concepts, it is difficult to reveal the content of the term: is unified the term feature of troops to the amount of matter which is the size that determines the amount of particles is identified the measure of the content of the subject.

The accuracy of the term and its interpretation by definition has primary importance in practice didactic discourse. The one sense and motivated terms, become part of the consistent terminological system, as the clarity of expression of the term accuracy, is also aware of the concept acquisition by lecturers. Scientific and technical terminology texts PUE includes the basic terms that make science education curriculum. The compilers of the texts tend to use increasingly Albanian terms that replace foreign terms. However are noticed uses of terms that do not correspond exactly with the foreign term, doublet terminology that burden the terminological system such as system *covering tissue (epithelial), diffusion (diffusion), liquefaction ((condensation), energy or kinetic energy of movement, clutch convergent* beam (*summary), dissolution or hydrolysis of macromolecules, dielectric - dividing* etc.

In teaching Texts equally are important the definitions that explain the content of nocionore units. Definitions long, incomplete, data definitions between synonyms would hinder the understanding of the content of the term.

Judging who is pressing need to draft explanatory Glossary, which would standardizes and equate the scientific terms, and will also unify and standardize their explanation. The normative and explanatory glossary seeks to avoid these deficiencies that we rank. The necessity of such consulting dictionaries and the editing of the texts by specialists of terminology, is added in the conditions of altertext when in the groups of the authors of the textbook is no terminology.

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