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Introducing Professional Terminology in Multilingual Education Teacher Programmes: Reasoning and Practice

Abstract

The article deals with the action research examining the evidence of the peculiarities of teaching terminology in the context of multilingual teacher education, offering methods of its introduction and acquisition applied both in bachelor and master study programmes of the Faculty of Education, Psychology and Art, the University of Latvia as well as in the in-service courses on multilingual education teachers' professional development. The crucial role of terminology acquisition is justified by the epistemological, didactic, as well as socio-political factors. The article shares experience of using terminology acquisition methods to develop students' higher level thinking skills as well as aligning teacher education programmes to the teacher competences and professional qualification standards. The results of research are practical, relevant, can inform theory and can be seen on three levels: personal, organizational and scholarly.

Keywords: *Multilingual education, teacher education, terminology, action research, teaching methods.*

Each study course has course specific concepts, notions and terms that are introduced and acquired during studies. To ensure effective and qualitative multilingual teacher education it is of utmost importance to draw particular attention to terminology. The article

shares experience evolving from the methods applied both in bachelor and master study programmes of the Faculty of Education, Psychology and Art, the University of Latvia as well as in the in-service courses on

multilingual education teachers' professional development.

Aiming to select the methods for terminology acquisition, first, it is necessary to frame the meaning of the applied terms.

Multilingual education/bilingual education (MLE) – is use of two (or more) languages for literacy and instruction. Most often a part of a formal education system enabling ethno linguistic minority communities to participate widely in society. Models of language allocation include students' first language or language with which they identify themselves, a national/official language and other languages. Ideally, literacy and learning begin with the learner's first language, "*first-language-first*" education, and a second language is introduced gradually.

Content and language integrated learning CLIL – is an approach in which a target foreign language is used as a tool in the learning of a nonlanguage subject in which both the language and subject have a joint role. Although, comparing MLE with CLIL, a list of differences between these two concepts can be formulated, taking into consideration the joint didactic aim – bilingual personality formation, in this article both terms are used side by side, as pedagogical insights and methodological 'armoury' applicable in both contexts.

Bilingual/multilingual education teacher – is used to describe a teacher who has methodological education to conduct MLE or

CLIL teaching. Comparing with the term *bilingual/multilingual teacher* – this extended term makes it clear that it is not only the teacher who is bilingual/multilingual, i.e., knows two or more languages, but he/she is also educated to teach bilingually.

Latvia has neither a standard for bilingual education teachers nor Teacher Professional Standard which is currently under reconstruction. Analysing Bilingual Education Teacher Standards in the USA (Competencies for Entry-Level Bilingual Education Teachers, 2001, Menken, Antunez, 2001, Bilingual Education Standards, 1014) and CLIL standard in Europe (Bertaux, Coonan, Frigols-Martin, Mehisto, 2010) it can be concluded that learning terminology focuses on developing various bilingual education teacher competences, i. e., comprehension as well as demonstrating productive application in various pedagogical contexts. It also facilitates the improvement of extended thinking: defining and adapting MLE and/or CLIL to the local context, integrating into the curriculum, linking the MLE or CLIL programme with school ethos, "the bilingual education teacher has knowledge of the foundations of bilingual education and the concepts of bilingualism and biculturalism and is able to use knowledge ... to be an effective advocate for the bilingual education ... among peers, family and community" (2001, <http://www.nmcpr.state.nm.us>).

It „can articulate how CLIL could be reflected in a school’s vision and mission statements, and in planning and public relations documents, ... guiding parents in understanding and using the terminology and concepts of education, ...can express own professional concerns and needs to fellow teachers” (Bertaux, Coonan, Frigols-Martin, Mehisto, 2010, p. 1-4).

Theory

The crucial role of professional terminology acquisition in multilingual education teacher programmes is determined by epistemological, didactic, as well as socio-political factors.

The epistemological aspect of rationale to learn terminology can be found both in classical education philosophy (cognitive approach and constructivism), as well as in works of contemporary learning theories (Illeris, 2009) that focus on social dimension of learning. Describing the formulated learning model, Jarvis (2009) quotes Falzon (1998): “Encountering the world ... necessarily involves a process of ordering the world in terms of our categories, organizing it and classifying it, actively bringing it under control in some way. We always bring some framework to bear on the world in our dealings with it. Without this organisational activity, we would be unable to make any sense of the world at all” (Falzon, 1998, p. 38) and builds

further: “Both adult and child have to transform the sensation to brain language and eventually to give it meaning. It is in learning the meaning, etc., of the sensation that we incorporate the culture of our life-world into ourselves; this we do in most, if not all, of our learning experiences” (Jarvis, 2009, p. 27).

The methods applied in study programmes refer not only to cognitive domain/approach in education – they help to develop core thinking skills – arranging information so it can be used more effectively (organizing skills), clarifying existing information by examining parts and relationships (analyzing skills), connecting and combining information (integrating skills), assessing the reasonableness and quality of ideas (evaluating skills), but also to facilitate collaborative elaboration – the process of sharing each person's point of view results in learners building understanding together that would not be possible alone – this in turn relates to social constructivism epistemology.

Teachers typically ground their understanding of teaching and learning as well as their concepts about how to teach in their own instructional histories as learners. It can be illustrated by the task to group learning methods done at the beginning of the course *English Language Learning Methods* (Peda4205) by students – would be teachers of the professional higher education bachelor study programme “Teacher” (42141): the most

popular classification offered by students which reflects their own experience is grouping according to the mode of delivery, i.e., visual, narrative. Other proposals also draw on students' previous learning experience:

methods I apply or do not apply in my teaching;

methods I know and do not know;

methods I apply working with young learners or adults;

methods that are usually applied in school or outside;

methods grouped according to the alphabet;

or methods according to group organisation – individually or cooperatively.

Developing skills of conceptualising and making connections between everyday teacher's professional work and theoretical foundations is a very important task in teacher education (Kennedy, 1999; Maldarez & Bodszky, 1999; Ball, 2000; Johnson, 2009). Basing on Vygotsky (2002) who distinguishes between two types of concepts – everyday and scientific, Johnson (2009) elaborates stating when students enter teacher education programmes they are typically exposed to the scientific concepts that represent the up-to-date research and theorising that is generated in their respective discipline(s). Part of their professionalization becomes making connections between the scientific concepts they are exposed to in their teacher education coursework and their everyday concepts about

the subject, learning and teaching. The responsibility of education, according to Vygotskian sociocultural theory (2002), is to present scientific concepts to learners, but to do so in a way that brings these concepts to bear on concrete practical activity, connecting them to the everyday knowledge and activities of learners. Robbins (2003) points out that a key to concept development is the extent to which instruction interrelates to everyday and scientific concepts, because it is this relationship that „lies at the heart of internalization”, that is, transformation of the social into the psychological (Robins, 2003, p. 83).

Internalisation is evident if students can easily switch from academic level to everyday and back. It can be illustrated by the Concept simulation method applied in course Peda5161 *Sustainable Cultural Environment of Education* (Professional Master's study programme "Teacher" (47141). The groups had a task to use 88 course specific key-words to design a schematic model to actualise the studied course content further adapting environment, situation, communication object for a different target group in a different environment, e. g., conversation with a relative (possibly a child or teenager) to inform about the content studied in the course, discussion with colleagues while drinking coffee during the long break to get them interested in the topic. This method serves also as a powerful

tool for academic language development – discrimination and practice of different language styles.

Addressing the socio-political aspect it should be taken into account that concepts and terms have developed historically. Therefore one term might have various definitions, or terms can be interpreted differently by different authors or agencies depending on the user's standpoint.

It should also be mentioned that the Cambridge Teaching Knowledge Test which focuses on the teaching knowledge needed by teachers requires teachers to know and apply terms and concepts thus underlining the broader nature of *concepts* as compared with *terms*. Thus, Skujiņa (2003) specifies that “by *term* we denote the unit of termination — a word or a combination of words that expresses (names and marks) a definite scientific conception in the terminological system of the respective branch of science” (Skujiņa, 2003). She also stresses that terms should be systematical, precise in meaning, brief in form, and emotionally neutral.

Skutnabb-Kangas (2008) explains the rationale of the necessity to define concepts: “The concepts we use are almost never neutral. In contested arenas such as bilingual education, words and concepts frame and construct the phenomena under discussion, making some persons and groups visible, others invisible; some the unmarked norm,

others marked and negative. Choice of language can minoritise or distort some individuals, groups, phenomena, and relations while majoritising and glorifying others. Concepts also can be defined in ways that hide, expose, rationalize, or question power relations” (Skutnabb-Kangas, 2008, p. 3).

This claim has many examples in the Latvian language. Reacting to changes of political system, borrowing concepts and terms shifted from the Russian to English languages. It should be noted that in more than 50 years there have been two gaps in the development of Latvian terminology: after World War II and starting from the early 1990s. Both can be described as unmotivated and unreasonable term replacement to meet the demands of the modern world. These changes are argued by transfer to another contact language (Russian to English) as well as ideology, and the challenge to apply previous terminological resources (due to physical non-availability and biased attitude). “There is a reason to believe that in many branches a partial shift from continental European term creation (characteristic of German and Russian) to Anglo-Saxon term system has taken place. As such, this fact is neither good nor bad, although it increases variability of terminology” (Balčiņš, 2012, p. 192). In social discourse the term *jargon* (*žargons*) has been replaced by *slang* (*slengs*). Depending on the source language of the term, when speaking about the

term *bear* whose native range is in the North, the terms *ledus lācis*, *baltais lācis* (белый медведь), *polārais lācis* (*polar bear*) can be found. In Soviet times the term *kolektīvs* (*collective*) was used, nowadays the term *kopiena* (*community*) is preferred. Consequently, the term *runas kolektīvs* (*speech collective*) has been replaced by the term *runas kopiena* (*speech community*).

Various examples (Grigule, 2009) illustrating how new concepts emerge in discourse and initially various, often different terms are applied, later stabilise with increasing intensity of their usage.

During the late 90ies, the teaching of the Latvian language became more topical, it was essential to find a neutral, emotionally acceptable, legally correct term to attribute to learners of the language: *cittautieši* (*aliens*), *mazākumtautības* (*minorities*), *minoritātes*, *otrās valodas apguvēji* (*second language learners*). Didactic term – ‘*otrā valoda*’ (*a second language*) is one of the most emotionally sensitive in this string of terms. In traditional theoretical literature *the second language* refers to the language which is acquired after the first language (Beikers, 2002). In 1996, launching *The State Program of Acquisition of Latvian*, a new approach – Latvian as second language acquisition (LAT2) – was adopted and an appropriate term introduced (Šalme, 2011). It was based on the tradition of the Scandinavian language

didactics which distinguished between the terms – *second language* and *foreign language* (Lindberg, 1995). Initial negative reaction of teachers – adult learners was observed by the authors during the in-service courses in Latvia, Moldova, Abkhazia, and Crimea. They felt their native language had been degraded by calling it a second language. This case illustrates the prevalence of everyday concept, namely, the denotation of *second* as *secondary*. Contradiction between the understanding of homonymic everyday concepts and academic/scientific concepts is an endless global phenomenon. The topicality of Latvia is, for example, perception and usage of the term *trešo valstu valstspiederīgie* (*third country nationals*). According to Latvian legislation, a third country national is a citizen of a third country – a person who is not a citizen of either the Republic of Latvia, or another country of the European Union, the European Economic Area or the Swiss Confederation. The meaning of the term is unambiguous for only a small group of its users, in community discourse ‘third country’ confuses understanding thus to answer the control question, e.g., whether a citizen of the United States is a third country national, people are bewildered and start doubting. Another topicality in the field of terminology is finding a notion to describe a person who has a Latvian citizenship and/or resides in Latvia, but is not an ethnic Latvian. The term *latvijec*

is used in the Russian language (Latvia national).

Referring to clear-cut distinction between the teaching of Swedish as a second language to minority groups in Sweden with mother tongues other than Swedish and on the other hand the teaching of other modern languages, Swedish researcher of bilingualism Lindberg (1995), notes that it should be pointed out that the distinction is clear to people within the field, but not always to those in power. It leads to non-recognizing, neglecting the fundamentally different needs of second and foreign language learners. Johnson (2009) gives explanation of weak cognitive perception at everyday level: “when someone attempts to bring this type of knowledge into consciousness in a little more than half a century, the result is usually a vague, incoherent, incomplete, and even inaccurate statement of the concept ... scientific concepts enable learners to ... function appropriately in a wide range of alternative circumstances and contexts” (Johnson, 2009, p. 20 - 21).

Example of inconsistency in international application of terms has been introduction and usage of such terms as *multicultural/intercultural education*; *multilingualism/plurilingualism*. In relation to *Language Policy in Georgia Project*, Grin (2006) analyses the usage variety of the terms *multilingualism* and *plurilingualism*:

Multilingualism and plurilingualism both describe the knowledge and application of languages. They are perceived as synonyms. According to Grin’s (2006) research, many researchers differentiate between these concepts. There at least three different types of distinctions:

... multilingualism as an attribute of individuals who know many languages, whereas plurilingualism characterises societies where many languages are used;

... multilingualism referring to the knowledge of different languages, while plurilingualism implying a more acute sense of the relationships between different languages as mutually complementary instruments for communication;

... multilingualism ... to denote the presence of many different languages in a region, without specifying how many, and plurilingualism ... to denote the presence of a finite number of identified languages (Grin, 2006, p.179).

In Europe today the usage of the terms has stabilised: *plurilingualism* defines the language policy of the Council of Europe, and is a fundamental principle of language education policies in Europe and elsewhere in the world describing proficiency of languages from the point of view on the individual, whereas *multilingualism* defines the presence of languages in community: “Plurilingual and pluricultural competence refers to the ability to

use languages for the purposes of communication and to take part in intercultural interaction, where a **person**, (our emphasis) viewed as a **social agent** has proficiency, of varying degrees, in several languages and experience of several cultures. This is not seen as the superposition or juxtaposition of distinct competences, but rather as the existence of a complex or even composite competence on which the **user** may draw” (Council of Europe, 2001, p. 3).

Professional terminology study methods that address these nuances – compiling a glossary, word associations, as well as exploring various contexts should be applied.

Summarising, in study process the differences of terms should not be hidden, but made explicit to facilitate better understanding of the relevant concepts. Implication from the socio-political aspect perspective encourages providing historical context of term development, subjectivity of various stakeholders reasoning thus creating a deeper and more flexible understanding of phenomena and the corresponding concepts as Paulston (1992) states “unless we try in some way to account for the socio-historical, cultural, and economic-political factors which lead to certain forms of bilingual education, we will never understand the consequences of that education” (Paulston, 1992, p. 9).

Learning terminology facilitates the development of teacher’s civic competence as

bilingual education teachers will always be expected to take their own civic position and act as an effective advocates for the bilingual education among community. Latvian linguists (Šalme, Skujiņa, 2009) emphasize that the terminology identification and recording gives the possibility to raise the status of the Latvian language and the academic quality of the respective subject.

Methodology and Findings

The action research to explore and pilot the professional terminology study methods has been carried out at the Faculty of Education, Psychology and Art, University of Latvia. The choice of the action research was determined by less concern for universality of findings, and more relevance of the findings to the researchers and the target group. Critical reflection and careful examination of evidence from multiple perspectives was the basis of action research. Thus, it was aimed to get an effective strategy for improving the professional terminology acquisition ways and changing the ways the community learns and teaches.

A list of professional terminology study methods have been applied both in bachelor and master study programmes for teachers as well as in the in-service courses on multilingual education teachers’ professional development.

The piloted list of terms (Grigule, 2012) consisting of the most widely used terms in bilingual education research and pedagogical discourse was based on Brumfit's Model (Brumfit, 1984) and the Functional Approach to meet the requirements of practice and studies of MLE (1) terms, teachers should be aware of, i.e., designing/shaping common frame of references – for teachers to have an initial common theoretical understanding and discriminating between personal and emotional attitude and professional discourse; (2) terms concerned with study process, e.g., names of learning methods which teachers need to learn at application level; (3) terms that lack unambiguous explanation. These can be reflected on to improve analytical skills. Teachers can define these terms themselves thus facilitating conceptualising of their experience and understanding.

Action research involved seven steps, becoming an endless cycle for the inquiry:

1. Selecting a focus;
2. Clarifying theories;
3. Identifying research questions;
4. Collecting data;
5. Analyzing data;
6. Reporting results;
7. Taking informed action.

The research involved a systematic process of examining the evidence. The results

of research were practical, relevant, and can inform theory. Three outcomes: on the personal, organizational and scholarly levels became evident.

At the personal level, a systematic set of methods for interpreting and evaluating one's actions with the goal of improving practice was designed. The process of action research involved progressive problem solving, balancing efficiency with innovation thereby developing what has been called an "adaptive" form of expertise.

At the organizational level, the system of interactions that defined a social context was understood. The carried out theory testing required a careful attention to data, and interpretation and analysis skills.

At the scholarly level, validated findings were produced and shared with those in bachelor and master study programmes for teachers and engaging in the dialogue with the larger research community.

In teacher trainer course within the project 'Supporting Multilingual Education in Georgia' (Bakuriani, 2012) to group the terms given in Guidelines of Bilingual Education Teacher (Grigule, 2012) participants worked cooperatively and designed the following classifications (Figure 1):

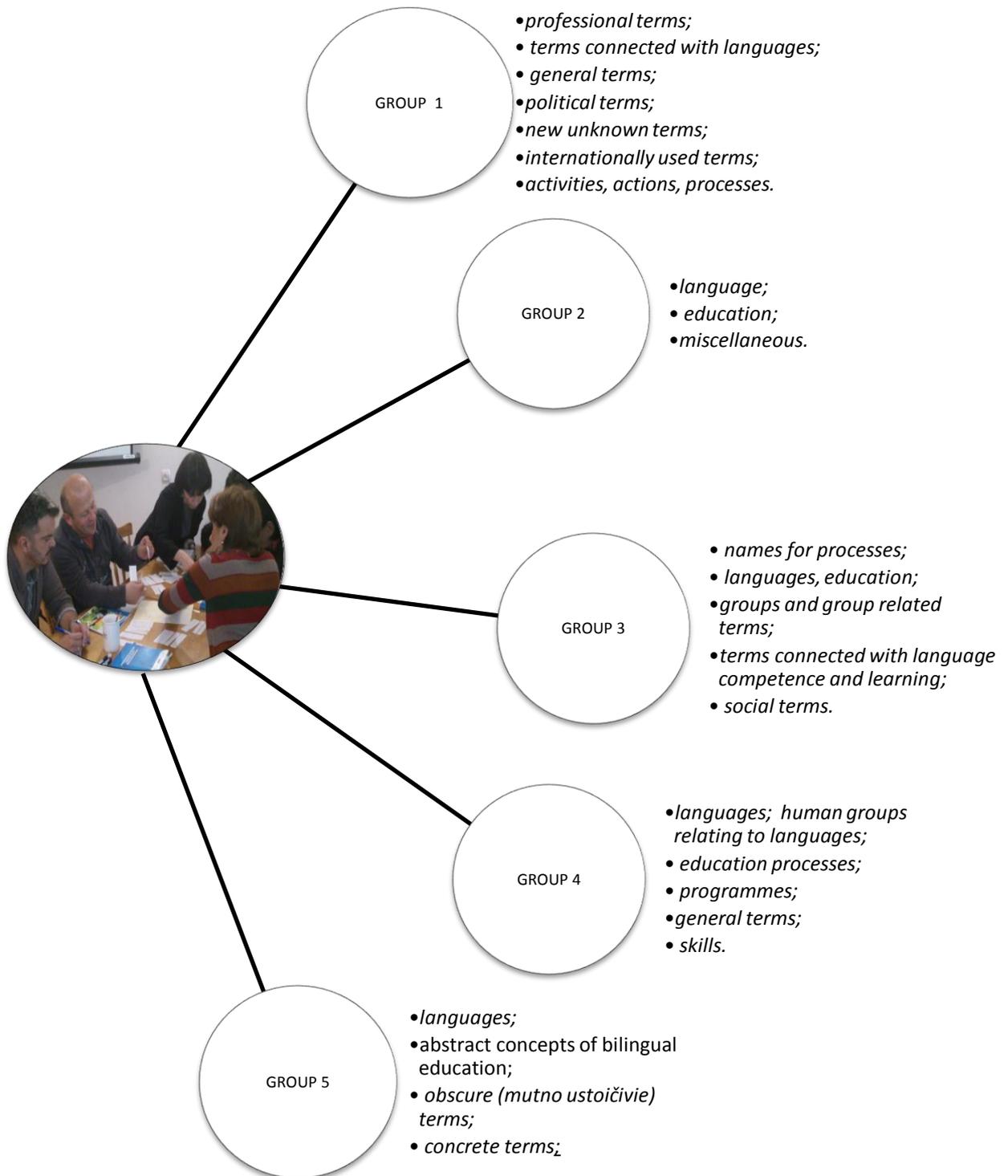


Figure 1. Concept formation method. Results of the group work. MLE teacher trainers' seminar. Bakuriani, 2012.

Commenting on the category of Group 5/
used as a metaphor – obscure terms (*mutno*

ustoičivie) – „widely met terms implying that
everybody knows them, however, when asked

to explain what the terms mean one realises they do not know the real meaning. However, this serves as stimulus to explore”. The metaphor had met wide approval of course participants and had occasionally been quoted also in other teacher training sessions.

Taking into consideration the fact that in multilingual education terms often have several different definitions, as an effective method turned out to be *nesting*. Groups were given several definitions; their task was to design criteria and review.

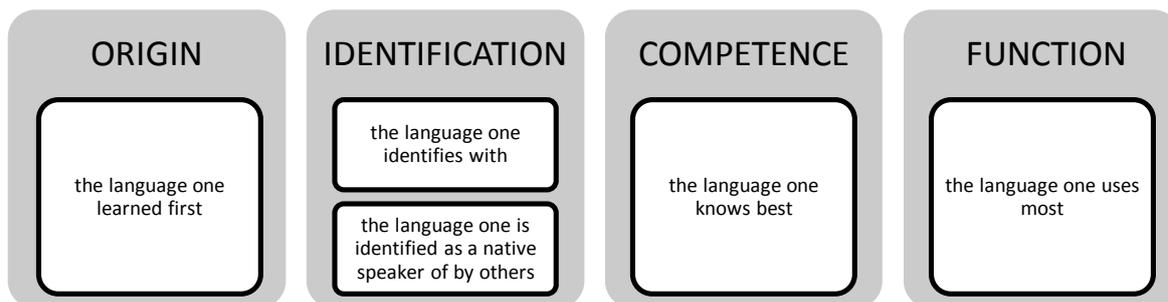


Figure 4. Nesting method. Mother tongue definitions.

Helping teachers to prepare for in-service teacher trainer’s work, several tasks of classifying were applied:

Task 1: to classify the terms according to when they should be learned – at the beginning of training / during training/ at the end of training.

Task 2: to classify the terms according to need for receptive or productive use – to read the list and mark the terms that teachers should be aware of and the terms that teachers should apply in their work.

Task 3: Choose 3 – 5 thematically related terms; select a technique, present and model how to introduce these terms to teachers in courses.

The listed and described methods (Table 1) were planned and applied to teach terminology in study and in-service programmes. Webb’s Depth of Knowledge

(DOK) was applied to classify and evaluate the methods. It has been developed based on Bloom’s Taxonomy by Norman L. Webb of Wisconsin Center for Educational Research to aid in alignment analysis of curriculum, objectives, standards, and assessments. Four levels have been formulated (Level 1 – Recall and Reproduction; Level 2 – Skill/Concept; Level 3 – Strategic Thinking; Level 4 – Extended Thinking) in the Webb’s Depth of Knowledge (DOK). The table of professional terminology study methods allows to check whether the methods and tasks provide opportunities for developing students’ higher level thinking skills as well as align teacher education programme to the teacher competences and professional qualification standards, not only to operate at the lowest level of thinking in the acquisition of the terminology.

Table 1. Professional terminology study methods.

Webb's Depth of Knowledge	& Corresponding Verbs	Methods
Recall and Reproduction Recalls a fact, information, or procedure.	arrange, define, draw, identify, list, label, illustrate, match, memorize, quote, recognize, repeat, recall, recite, state, tabulate, use, tell who-what-when-where-why	Matching Pelmanism game Scrambled definitions Walk and swap
Skill/concept Uses information or conceptual knowledge. Requires two or more steps.	apply, categorize, determine cause and effect, classify, collect and display, compare, distinguish, estimate, graph, identify patterns, infer, make observations, modify, organize, predict, relate, sketch, show, summarize, use context clues	Advance organizers Matching antonyms Matching parts of definitions Making a definition from keywords and contextualize Word-building Showdown
Strategic Thinking Requires reasoning, developing plan or a sequence of steps, some complexity, more than one possible answer.	apprise, assess, cite evidence, criticize, develop a logical argument, differential, draw conclusions, explain phenomena in terms of concepts, formulate, hypothesize, investigate, revise, use concepts to solve non-routine problems	Grouping Classification Word associations Problem solving Visualising Analysing contexts
Extended Thinking Requires an investigation, time to think and process multiple conditions of the problem.	analyse, apply concepts, compose, connect, create, criticize, defend, design, evaluate, judge, propose, prove, support, synthesize	Concept formation Concept attainment Concept simulation Synectics

Matching, pelmanism game and scrambled definitions required thinking processes characteristic to the lower level of Webb's Depth of Knowledge, but they were useful methods to introduce terms, they also contributed to team building and interaction. The main idea of these methods was to match cards with terms and cards with their explanations. Variations of these methods – *matching antonyms, matching parts of definitions, making definitions for the given keywords* and *providing context* required deeper thinking at skill/concept level. Another

method that was applied to present and practise terms effectively was *word-building*. It involved decoding – participants had to induce the meaning, e.g., reliability (from the verb – *rely* and noun suffix - *ity*) and contrasting, e.g., *primary, elementary, basic, secondary, high school*. It was the first step towards creating new terminology.

The acquisition of concepts and terms is characteristic to constructive learning. To teach them, information processing models: *advance organizers, concept formation, problem solving, concept attainment,*

synectics, word associations, visualising were applied. Informational processing models emphasize ways of enhancing the human being's innate drive to make sense of the world by acquiring and organising data, sensing problems and generating solutions to them, and developing concepts and language for conveying them (Joyce, 2002). As the term implies, the aim of applying information processing models is to help students operate on information obtained so that they develop conceptual control over the areas they study. To facilitate social interaction, such methods as *walk and swap, showdown* was applied.

New integrated approach to terminology not treating terms as isolated items, but seeing holistic picture had been incorporated in the new professional master's study programme at the University of Latvia. The Professional Master's study programme *Teacher* is envisaged for students who have a Bachelor' degree or the second level professional higher education (or the comparable education) to obtain a Professional Master's Degree in Education and, by choice, teacher's qualification specializing in one of the school subject fields.

The chief innovation is the modular structure of the programme, flexible time of studies, bilingual studies – in the Latvian and English languages, thus, ensuring integrated studies of the foreign language and course content, interdisciplinary approach; facilitating

link of the anticipated results with the professional specialization of the students; integration of didactics and research improving the research skills and managing learners' research process and works. The study courses have been planned to be delivered cooperatively by 2-3 lecturers.

The programme puts principal focus on interdisciplinary approach. Its special focus is readiness to learn and teach bilingually. Therefore special attention in this programme is paid to the acquisition of professional terminology in at least three languages, thus enriching students' understanding through comparing derivational systems and developing their translanguaging skills (Celic, Seltzer, 2011). The individual plurilingual competence is a target action and additional resource in studies concerning the anticipated results of the study programme:

- Works together with other professionals in a team;
- Can enlarge one's knowledge and understanding by carrying out research and studying in foreign languages.

Terminology work is planned and organised in several steps. First, designing course content of Professional Master's Study Programme "Teacher", key terms and concepts relevant to understanding each study were selected. Concepts helped to understand course content. Clarifying and linking course concepts helped to realise interrelations and lack as the main

terms should be related to learning outcomes. It was planned that during the introductory session, completing each topic and in the exam, students did tasks connected with terminology.

Secondly, concept formation model was applied in the introductory session. Students were exposed to a set of concepts and asked to organise them in previously negotiated groups:

Sustainability, wellbeing, cohesion, diversity, securitability, identity, human rights, community, holism, contextuality, creativity, life skills, value orientation, participation, responsibility, global citizenship, globalization, intersection of time and space, hopeful future stories, informal learning, ...

Next, to summarise the topic students designed key concept lists:

Teacher as a partner or counsellor; involvement, sustainability, mutual communication, collaboration, responsibility for learning process, interaction, personality development, work atmosphere, inclusion, celebrating diversity, culture dialogue, supportive environment, meaningful social content, efficiency, participation, motivation and energy to cooperate and participate, joy to learn, expressing opinion, new knowledge, cooperation, way to the common aim,

experience, world outlook, individual contribution to achieve the aim, favourable atmosphere, respect, benefit, learning by doing, teacher-counsellor. (Terms from the course *Didactic Approaches in Education Practice* (Peda5163): The concepts associated with the social interaction family of methods).

Concepts and terms were used in three languages which facilitated (basing on semantics and word building typical of each language) deeper and more detailed understanding. Such practices offered the possibility for students to access academic content through the resources they brought to the class while simultaneously acquiring new ones. Thus, academic staff realised students' knowledge of theory. Activity showed the professional interests and attitudes of the group what they knew and what should be mastered.

In another task a variety of language concepts, which had no appropriate translation in other languages were provided to students and they were encouraged to find their own examples. In the Latvian language: *kapusvētki*; in Georgian: *genacvale, gamarjoba*, the Ukrainian: *nocinaka, mityuuku, жовтогарячий*. The challenging terms which cannot be translated developed creativity and raised awareness of relativity of language skills.

Conclusions and Discussion

Action research had positive effect for many reasons, but the most important that it was relevant to the participants. Relevance was guaranteed because the focus was determined by the researchers, who were also the primary consumers of the findings. Action research helped educators be more effective at what they cared most about – their teaching and the development of their students. It was also an empowering experience to researchers – practitioners.

Terminology work links learning and teaching. Lecturer's work should start with selecting terms and the most appropriate methods. Conducting needs analysis could be a valuable asset. In professional development programmes, work with terms is relevant to teachers who plan to work as multipliers/mentors/trainers. Experienced focus on the acquisition of concepts and terms during teacher education by students themselves could lead to the transmission of method to their education approach and professional repertoire: "The inquiry process that guides the creation of learning experiences is exactly the same in the secondary phase of education and in the university as it is with young children. The maths teacher and the professor of physics arrange environments, provide tasks and try to learn what is going on the minds of their students, just as does the teacher who first

introduces reading and writing to her students" (Joyce, Calhoun & Hopkins, 2002).

The method of recognising and learning terms corresponds to the concept of 'loop input' model, suggested by Woodward (1991). In *loop input*, as it is explained by Woodward (1991) is an activity frame borrowed from another level. It is brought back up and used by trainers for the purpose of their own syllabus. The content is aligned with process so that it forms a Mobius strip. The model was named loop input because the Mobius strip looks like a strip of paper that has been looped. This is an experiential teacher training process that involves unity of process and content. Thus, teachers can apply classifying terms according to the required level of acquisition, consolidation of understanding in their practice to select, evaluate and plan vocabulary work. They will teach in the same way they have learned.

The Professional Master's competence is to be formed by three interrelated sets of study results: (1) the epistemological aspect of professional competence in cognitive activity; (2) the ontological aspect of professional competence in integrated pedagogical practice and research and (3) the axiological aspect of professional competence in pedagogical practice directed to personal wellbeing and coherent development of society. The focus of this study proves that terminology aspect relates to all three sets of anticipated results of the study

programme: particularly to the epistemological aspect of professional competence that envisages that students can communicate the information clearly and convincingly based on

both cognitive and affective processes and taking into account the characteristics of the target audience in various social and cultural contexts.

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Annex 1. Professional Terminology Study Methods

Concept simulation Method developer Inga Belousa.

Task for groups: use course specific key-words to design a schematic model to actualise the studied course content further:

Group 1: Further education courses for teachers to improve their professional competence of ensuring sustainable cultural environment of education.

Group 2: Discussion with colleagues while drinking coffee during the long break to get them interested in the topic.

Group 3: Conversation with a relative (possibly a child or teenager) to inform about the studied in the course.

Group 4: Mentoring a new colleague to encourage and support developing sustainable cultural environment of education.

Group 5: Discussion with colleagues which is organised after lessons to maintain colleagues' interest and improve professional competence of ensuring sustainable cultural environment of education..

This method not only develops thinking skills, it also serves as a powerful tool for academic language development – discrimination and practice of different language styles.

Concept formation

Development of classification skills, hypothesis building and testing, and understanding of how to build conceptual understanding of concept areas. It consists of three steps:

1. Concept formation: What matches what? Learners name words connected with concept, group them and give titles to the groups they have formed.
2. Interpretation – ‘What do you see?’ Learners describe the new classification, explain relations between categories, reasons and consequences, and make conclusions.
3. Applying principles – ‘what would happen if...?’ Learners use regularities to prove or explain hypothesis, assumptions, and prognosis. They work out criteria to test them.

Inductive thinking helps learners find and classify information, form and classify categories, form and test hypotheses of the formed concept groups.

Concept attainment

Teacher thinks of a concept and formulates its explanation. Learners' task is to recognise (guess) the concept, and compare relevant (valid) and irrelevant (not valid) examples. It consists of three steps:

1. Concept attainment – teacher provides examples relevant to the concept; learners make assumptions and test them. Basing on characteristics, they make a definition.
2. Concept testing – Teachers provides examples that are either relevant or irrelevant to the concept. Teacher affirms right assumptions, says the concept and corrects definition made by learners. Learners add to features of the concept, giving more examples.

3. Analysis of thinking strategies. Learners describe their thinking, discuss role of assumptions and hypothesis in concept attainment. This method helps to recognise concepts, comparing and contrasting examples, applying examples with irrelevant characteristics reveals characteristics typical of concepts.
Naming irrelevant examples is very important as they help to set limits of concepts.

Synectics

Synectics is a problem solving method which facilitates thought processes of which learners may be unaware. The aim of the method is to develop creativity, raise awareness of creative processes and mastering strategies. Synectics means creating analogies and applying them in problem solving as well as generating new ideas. It consists of several steps:

1. Describing the situation. Teacher asks learners to describe the real situation as they see it.
2. Direct analogy – Teacher or learners name persons, objects, phenomena. Learners are encouraged to invent direct analogies and explain how the original is similar to the new one. To find a new approach, the situation is transferred to another situation or problem.
3. Personal analogy. Teacher asks learners to identify themselves as a living or inanimate object and describe it from the point of view of the first person. (Imagine you are...! How are you feeling? What surrounds you? How do you perceive it?)
4. Symbolic Analogy or Compressed Conflict
Basing on their own characteristics learners make word combinations that appear contradictory, e.g., cruel kindness, kind enemy, cruel games, horrible summer, true lies. Teacher encourages learners to explain the contradiction, give examples from nature or culture.
5. Teacher leads learners back to the original tasks or problem and applies analogies to raise and broaden awareness.

Defining terms

This method helps to formulate and establish meaning. To make a definition, small research can be done to find different contexts, examine discourses and the respective meanings (syllabus, curriculum, etc.). Students come up with definition that explains the term; they can expand or narrow the scope of the term.

Placemat

Placemat – is a method that helps learners to visualise process of definition making. Learners write their ideas individually and then compare and agree on the final version. Then in groups of four, learners are asked to make a placemat on their paper as follows: divide the page in 4 parts diagonally, the circle is drawn in the point of intersection.

1. Ask to write the concept in the middle of the placemat.
2. First, each learner writes ideas or comments in their own space on the placemat.
3. Then learners read what others have written by turning the placemat around and discuss the ideas.
4. They agree on what could be written in the middle.

Walk and swap

The aim of the method is to understand and learning concepts and key words.

1. Give each learner a slip of paper and one key word.
2. Learners copy the term on the slip of paper and write its translation on the other side.
3. Learners stand up and each finds a partner. Learner A reads out to learner B either term in English or MT.
4. Learner B gives translation. If learner B does not give the translation learner A tells it and asks to repeat it three times. Then learner B reads out his/her word and follows the same process.
5. When they have finished, they swap slips and find another partner.
6. Continue until learners have changed most of the terms.

Finally ask them to write down the words from memory. Discuss nuances of meanings

Showdown

The aim of the method is to revise or learn words, terms, concepts, definitions, and check understanding

Learners work in groups. Teacher prepares words or questions for each group, write each on a separate slip of paper.

Version – there is a question on one side and the answer on the other side of the slip or a word in mother tongue on one side and translation of the word on the other side.

Example: Learn the words connected with the topic.

1. Put the word cards face up in the centre of the group. MT – up, English – face down.
2. Appoint a leader/captain for the first round,
3. The leader reads out the first word aloud.
4. Without talking, everyone (including the captain) writes the translation of the word on his/her paper and then place the paper face down.
5. When everyone has finished writing, the captain says “Showdown”.
6. Everybody shows the answer.
7. The leader turns the task card over to check the answer.
8. Group discusses the answers that are different.
9. If everyone has a correct answer, the card is removed, if not – the card is placed at the bottom of the pack to repeat it later.

The learner on the left becomes the leader for the next turn.

Venn diagram

The aim of the method is to process terminology, activate knowledge on similarities and differences related to the topic and terms as well as concepts. Learners write the two chosen topics/objects to compare in outer circles, and then write similarities between them in the middle. Example: Bilingual education & CLIL.

Pelmanism game

A memory game with word cards. The aim of the method is to memorize terminology.

1. Two or more learners can play. A card pack of terms should be prepared, the backs of the cards should be indistinguishable and the faces can be matched up in pairs or quartets.

2. The cards are thoroughly mixed and spread face down on the playing surface. The cards should not overlap, and can be arranged in a regular pattern or spread irregularly as desired.
3. Learners take turns to play. At their turn they turn face up two cards of their choice from the layout. If cards match (e.g., term in Latvian and term in English), learners take these two cards, store them in front, and take another turn. If the cards with terms do not match, they turn them face down, without changing their position in the layout, and it is the next learner's turn.
4. Play continues until all the cards from the layout have been taken as matched pairs.
5. Each learner scores one point for each pair taken. The learner with most points is the winner.