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TOWARDS TEXTPRODUCTIVE COMPETENCES OF A LANGUAGE WORKER AND NOVICE RESEARCHER

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Abstract

The paper considers methodological problems of academic research work in master and postgrad programs training. These problems concern a student's awareness in the academic research project choice, their skills and knowledge in definition of its goal, tasks, theory choice and academic writing as it is. Training experience has shown inability of Master program students to define their assignments in research work and necessity of special courses in scientific text structure and academic writing both in Russian and English languages. These courses are to solve training problems for text creation state-of-the-art since modern level of technology and science is now determined by the potential of automation processes in industries (Industry 4.0) and an appropriate presentation of information on the project under development and implementation (Information 4.0). The paper tries to assess the need for educating a new generation of specialists – language workers – those, who are prepared to solve text processing tasks in this new technology space. The paper considers the potential of information technologies and Web resources to be used by various specialists in their practice and studies. It addresses the general problems of modern methodological education caused by the changes in modern educational situation that demand a new understanding of educational process. It also discusses some issues of professional education.

1. Introduction

Dramatic changes in science and technology, rise of new investigation methods and, what is more, new knowledge domains result in a sharp backlog both in academic and technical writing competences and in specialized language resources, supporting any novice research and language worker studies and work. A language worker – terminologist, translator, lexicographer, technical writer, grammarian, language teaching specialist, etc. as specified in (Beliaeva, Blohina, & Kamshilova, 2017), is a new generation professional with a basic linguistic/philological education, prepared to meet the demands of modern technology and science which are defined by the potential of industrial processes automatization (Industry 4.0) and appropriate presentation of information (Information 4.0). Considering these demands modern educational process has to face much stronger challenges than administrative restructuring. In the context of growing information volume, an evident conflict of "academic" approach (Chernyavskaya, 2018) to educating a language specialist and the need for competent language workers, pliable and prepared to anticipate changes and develop their new qualities, we are placing an emphasis on a competence approach in training a language worker. The paper addresses one of the general problems of basic linguistic education caused by the changes in today requirements for text generation and use in the of Information 4.0 framework.

2. Problem Statement

Since text remains the main medium of information and knowledge mining and dissemination (Beliaeva 2003), every competence and skill relevant to text processing and text production are essential for a language worker professional practice, hence their relevance for educational programs. According to TecCOMFrame competence list (Meex & Karreman 2016: 487) text driven competences of a new generation language worker include:

1. Understanding and being able to apply the types of academic research methods and approaches;
2. Being able to ensure that information is retrievable and accessible, presents a cohesive mental model;
3. Understanding the concepts of writing styles, writing concepts and writing outputs; and to adopt varied approaches strategies, depending on the context;
4. Being able to manage large numbers of documents (different types, versions and formats);
5. Being able to manage and to overview large amounts of information;
6. Knowing how to apply communicative and linguistic theories and models to adequately describe information products.

To develop the above competences academic training should correspondingly provide teaching such subjects as Academic Research Methodology, Information Architecture, Technical Writing, Document Management, Information Management, Language and Communication (Meex & Karreman 2016; Chernyavskaya 2017; Kabanova & Kogan 2017).

The present paper considers mainly those specific linguistic and research skills that implement the process of research outcomes and findings dissemination in text form both among scholars and experts in the field, that is, competences 1- 6 from the above list. This focus is driven by the fact that knowledge-

based economy defines research as a way of knowledge and data mining from different sources and funneling them into education and academia. The same knowledge-based economy creates competitive environment for research groups, schools of thought, research institutions both nationally and internationally. In securing competitive advantages for specific domains and nationwide science research findings their positioning strategies are now a matter of utmost importance (Akopova & Chernyavskaya, 2014).

This challenge reflects in the leading universities policy, in the intra-university system of scientific excellence maximization, that is now one of the major targets for a modern science-friendly university. In its turn, it implies solving the problems of selection such research domains which would be innovative to ensure a breakthrough in the global competitiveness of scientists. Furthermore, it also implies solving the problems of organizational support for researchers in these domains. A competitive scholar today, no matter what their domain is, must be prepared to present information on their research projects in different text forms, which, as our observation demonstrates, is a wishful thinking even with young researchers with a basic linguistic/philological background.

3. Research Questions

We'll discuss the problem of teaching students (master and postgrad programs) to plan and carry out research procedures by means of a special course, an Academic Research Methodology course, during which students are to learn the main principles for creation, transformation, dissemination and preservation of knowledge related to language teaching, research and scholarly endeavors. The present study considers the experience of developing special courses for scientific project organization and academic writing at two leading Russian universities, Herzen State Pedagogical University of Russia and Peter the Great St. Petersburg Polytechnic University. At the very beginning of delivering this course the students of master programs in linguistics, philology, native and foreign language teaching receive a special assignment to be done and presented at the course end. This course supposes coordinative work between a student and both scientific adviser and lecturer as any student is to define and submit the title and theoretical conception of the research to be done with their scientific advisers, put forward initial hypothesis, define the goal to be achieved and the problems, solving which will allow to reach the goal. Their unsupervised work includes the following obligatory tasks:

1. Pursuant to the research paper/project Introduction model, write the first Introduction variant to your future thesis.
2. Single out the basic theoretical concepts and reflect their relations.
3. Give definition of one of the polysemantic concepts used.
4. Define the concept of your research and justify the principles of sampling the material for the research.
5. Set the analysis unit for your research: text, cycle, plot, sentence, term, word, dictionary article, collocation, respondent answer, etc.

These tasks develop text productive competences (House, 2002; Steinhoff, 2007; Beliaeva, Blohina, & Kamshilova 2017) and their solutions are to be presented as special text components: Introduction, Terminology Definition, Problem Statement, References.

4. Purpose of the Study

The tasks are to be accomplished according to following concepts:

- Introduction to a thesis is a modeled text with the following obligatory parts: relevance of the project topic, hypothesis to be verified, the goal, that is to be achieved by the task solving, the object, subject and material for the research in question.
- The basic theoretical concepts are to reflect the substance of the theoretical research, their interrelations are needed for adequate theory understanding,
- Concept definition needs to be based on the theory chosen for the research,
- The research theory or conception chosen is to be proven by the principles proposed for material sampling,
- The analysis units are to be based on all the previous reasoning.

The result is evaluated by the following scores: Introduction – max 55, tasks 2-3 – max 15, tasks 4-5 – max 10. Maximum scores for the obligatory tasks are 80.

To receive a 100 score a student is to perform one of the following facultative tasks *ad lib*, aimed at managing and overviewing large amounts of information, competence 5 (max 20 scores each):

- define necessity and expediency of information technologies in your research;
- establish and describe the material to be processed with the help of information technologies, and to define the proper methods for its sampling, presentation and analysis;
- create a list of dictionaries and/or encyclopaedia needed for analyzing their material and sound this decision.

5. Research Methods

The course mastering is evaluated on the basis of the students' final course writings that are to reflect their basic knowledge of research planning and principles (Porter, Kongthon, & Lu 2002; Meredith, Mantel, & Shafer 2016) and their skills in academic writing (see Table 1).

Table 01. Quantitative characteristics of the texts presented

Characteristics of the texts presented	Years of the course delivered					Total
	2013	2014	2015	2016	2017	
Total quantity of the works done	24	24	39	41	39	167 (100%)
No facultative tasks done	10	15	24	16	7	72 (43,11%)
High results (scores 75-100)	8	3	13	10	6	40 (23,95%)
Average results (scores 40-74)	10	13	18	19	25	85 (50,9%)
Low results (scores 20-39)	6	8	8	12	8	42 (25,15%)
High results for the Introduction (scores 40-50)	16	9	11	11	7	50 (29,34)
Average results for the Introduction (scores 20-39)	3	10	16	29	23	81 (48,5)
Low results for the Introduction	5	5	12	1	9	32 (19,16%)

6. Findings

Information in Table 1 shows that majority of the students fulfill only obligatory tasks and skip the facultative ones. The plausible reason of their negative approach to these tasks is literary criticism direction of most students' projects and traditional distrust in computerized methods of analysis of specialists in literature studies and literary society as a whole. As for the Introduction part, the quantity of those who did it properly, with sound understanding of dependences between topic, goal, problems and other components is about 23 %.

In general, most frequent mistakes in research text production to be discussed are as follows:

- lack of correlation between the title and the topic, the title defines one specific proposition and the topic, actuality of which is to be not only shown but proven in the Introduction, relates to some other domain;
- lack of correlation between the topic and the goal, the topicality of the future research is proven but not in accord with the goal declared;
- lack of correlation between the goal and the problems set to achieve it. This mistake is the most frequent as students don't realize the necessity to receive evidence for the goal achievement. For example, the goal is defined as "developing and testing a special exercise system" for teaching at a certain level of language competence and the result of the problem solution is projected as a guidebook without any testing or appraisal;
- confusion of the object, subject and material of the project/research. This mistake is a frequent one too. Students don't understand the importance of these components for their work, they can't decide what scientific information they want to receive (the object), what phenomena they are to study to receive this information (the subject) and what linguistic or literary material they will analyze to receive it. This typical confusion demands the necessity to discuss these components in other theoretical courses of studies;
- highlight a problem of reading topic-related scientific literature as the first problem to be solved, while this is rather their competence building, their personal background development, but not the problem to be solved.

All the above-mentioned mistakes are to be discussed with students' scientific advisers on the problems revealed. Each work is not only read by the lecturer but is given a detailed analysis with every mistake classified, which can be later discussed with the lecturer. Students may rewrite their works for a higher score.

7. Conclusion

Our results demonstrate that even basic philological education does not guarantee textproductive competences required from a language worker, nor does it prepare a novice researcher to present information on their research projects in different text forms. The proposed course is intended as academic instruction in research methods and approaches typical for language and philology domain with a stress upon text as information and knowledge mining and dissemination medium (Chernyavskaya, 2016).

Reflexion shows that alongside with typical mistakes in research text production humanitarian students and potential language workers reveal their unawareness and lack of skills in information technologies application and use, which is an absolute demand of Information 4.0 Framework. Thus, we need specialized educational space to form these competences and to overcome the backlog, otherwise their participation in modern projects would be a question (Klochkova, Volgina, Dementyev, & Klochkov, 2016).

In principle, all resources of a high-technology educational environment could be divided into information, technological (software) and technical (hardware). This resource division does not depend on the type of users, on their belonging to humanitarian or natural-science domains of education and science, it does not depend either on the specific problems to be solved within educational programs or on research projects. Problem orientation of the information resources determines their hierarchization, i.e. division on the terminal and high-level (universal) units. Thus, terminal units (term bases or text corpora (Beliaeva, 2014) should correspond with university's educational specializations, i.e. to narrow knowledge domains that are relevant for a certain educational environment.

Web linguistic resources represent an important research, educational and methodical resource, use of which shall become an essential condition for a language worker training (Seidlhofer, 2004) as a component of a university educational environment. When forming a modern language environment choosing certain web resources relies on integrated interdisciplinary approach, taking into account the communication specifics in various environments, with different participants and tasks.

Hence, simulation of dynamic systems – both natural language and terminological systems of languages for special purposes represents a challenge that requires special competences of language workers in information technologies as a whole and in the linguistic resources particularly.

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