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WRITING SCIENTIFIC ARTICLES IN PRE-SERVICE ENGLISH TEACHER TRAINING: INTERACTIVE APPROACH

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Abstract. *This article highlights the problem of teaching writing scientific articles in pre-service English teacher education. The author presents a scheme of work over scientific articles emphasizing the potential of interactive approach to language acquisition in academic and professional situations. It is suggested that the potential of this approach is matched by its usefulness in activating students' linguistic knowledge and skills, in providing an opportunity for reflection and professional discourse on the basis of in-depth analysis of authentic scientific texts, in promoting MA students' scientific literacy in the field of professional subjects.*

The scheme covers four stages, such as analytical stage, discussion stage, cooperative writing stage and creative stage; the tasks for each stage are described. The focus is on the interactive tasks inspiring students to qualify or justify their knowledge in light of the information discussed, to have effective practice with colleagues and promote their professional scientific discourse. The scheme was implemented in the process of teaching MA students within the course "English in Scientific and Academic Discourse".

Keywords: *teaching writing scientific articles, interactive approach, discussion, scientific literacy in the field, MA students.*

Reorganization processes taking place in modern Ukraine also involve Higher School. This, in its turn, raises numerous questions among which is the issue of students' skills improvement in professional language acquisition in pre-service English teacher training. Attention is focused on the developing MA students' skills in international scientific communication.

MA in English Language and Literature program is aimed at learners' further professional development and specialization in teaching English as a major. Thus, it requires completing and complementing MA students' knowledge of English and applying it to specific academic and professional contexts. As a result, this program includes the course "English in Scientific and

Academic Discourse". The content of the course covers a range of core issues with specific reference to language acquisition in academic and professional situations. The course objectives are set according to the major achievements that MA students are expected to attain. The development of their writing skills in different genres of scientific discourse is among these achievements. Thus, this article concerns the problem of teaching writing scientific articles in pre-service English teacher education.

The research works on the subject touch upon the issues of academic writing (T. Annesley, N. Bowker, O. Dolgina, L. Hamp-Lyons, B. Heasly, A. Hogue, G. Hughes, E. Knyazheva, I. Kolesnikova, S. Mackay, N. Murray, A. Oshima, O. Tarnopolsky, C. Tribble, L. Trimble, J. Trzeciak) and scientific writing (R. Goldbort, E. Hancock, M. J. Katz, J. Lebrun, T. Leontieva, T. Mordovina, E. Vasilyeva, I. Uvarova, T. Yakhontova). Despite the importance of this problem, there has been little recent discussion as to the best means of teaching writing scientific articles in pre-service English teacher training. This article puts forward ideas for using interactive approach to teaching MA students how to write scientific articles. Research suggests that the potential of this approach is matched by its usefulness in strengthening links between theory and practice, in activating students' linguistic knowledge and skills, in providing an opportunity for reflection and professional dialogue, in promoting scientific literacy for MA students in the field of professional subjects (Linguistics, English Teaching Methodology, Pedagogics, English Literature).

Thus, the main objective of this article is to disclose the possibilities of using interactive approach to teaching MA students how to write scientific articles within professional disciplines.

According to E. Mikhailova, "a scientific article – is the primary written genre of scientific discourse, the task of which is to set and solve one scientific problem having an average volume, the system of references and the date-line" [1, p. 89]. In her study E. Trojanskaya [3] refers a scientific article to nucleus area of scientific style. E. Mikhailova [1] calls it "the nucleus of the scientific discourse".

Although there is no established formal typology of scientific articles, these forms may be differentiated in basic content and purpose as follows:

▪ research/empirical (it reports on the results of one or more studies or experiments, written by the person(s) who conducted the research.);

▪ review (it synthesizes previously published work to evaluate the state of current knowledge in a defined area, identifying gaps and suggesting future directions);

▪ theoretical (it contains or refers to a set of abstract principles related to a specific field of knowledge; characteristically it does not contain original empirical research or present experimental data, although it is scholarly);

▪ applied (it escribes technique, work flow, management, human resources issue);

▪ case study (it analyzes quantitative or qualitative information obtained from studying individuals or organizational settings to demonstrate a problem or a need for new solutions and theories) [4; 7].

To become scientifically literate, MA students must ultimately learn to write the types of scientific articles mentioned above in unity of their genre, structural and linguistic peculiarities. In this article I will briefly describe the scheme of work over scientific articles in the process of teaching MA students within the course "English in Scientific and Academic Discourse". The scheme provides a structural framework in which students' professional scientific discourse can be promoted and encouraged. Consider three stages of teaching students scientific discourse on the basis of scientific research article that T. Mordovina [2] advances, a four-staged scheme of work was suggested. In trying to assess the value of the scheme, it is essential to describe every stage.

As in modern Theory and Practice of Foreign Language Methodology the tendency to integrate three main approaches to teaching writing (traditional approach, genre approach and process approach) has received scientific support that was reflected in the scheme worked out.

The first, analytical, stage included two steps. At first students were offered to analyze the specific features of the certain type of a journal in the arts and humanities. It is essential for MA students to know that journals vary in their degree of specialization, with some publishing articles on a broader subject range (such as *Forum, Journal of Human Sciences and Extension),* and others in narrower specialties (such as *ELT Journal, The Modern Journal of Applied Linguistics*). Requirements to publications also depend on the journal tradition. Students need to know that various kinds of items (editorials, news reports, book reviews, correspondence section, etc.) are published in the journals besides articles and to differentiate between types of article.

The task was to analyze a formal structure of two specialized journals and one of a broader subject range and to present the results in the form of comparative table. Students' attention was also focused on style analysis (such as journal's formatting of references, layout). Students worked within the formats of small group (three students). Some groups were offered to work with journals of Teaching and Education; other groups were given Linguistic journals. For analysis were given not only printed but also online materials. Such analysis helped students to differentiate among various kinds of items published and their respective aims; to distinguish their purpose and bibliographic value; to enlarge students' scope as to modern tendencies in scientific research in the field of professional subjects. As MA students are encouraged to publish during the course of their studies, one more positive aspect is that they got information how and where to publish the research results. Group work promoted active interaction, sharing information on new knowledge and contributing to the development of personal qualities such as sociability, cooperation, initiative.

The next step required analyzing a certain type of the scientific article (research, review, theoretical, etc.), its conventional parts and linguistic features. It contributed to completing and complementing MA students' knowledge about the professional standard of validity of the research results. The focus was on the structure and on the linguistic peculiarities of the scientific article in English Teaching Methodology and Linguistics.

It must be mentioned that when writing a scientific article students are inclined just to translate from native language into target language that complicates this activity. The reason is that the greatest part of research works they prepared during baccalaureate was in their native language, as well as the theses MA students are working during the course of their studies. The given tasks were aimed at encouraging them to express their thoughts in English instead of translating. Students' attention was focused on the fact that when working over a scientific article, the author (as a specialist in a discipline and its terminology) needs to know how to express his or her ideas in a foreign language coherently, taking into consideration the style appropriate to the discipline and specialized linguistic peculiarities of the scientific target language. In-depth exploration of various authentic scientific articles promoted better understanding of the text as a model for the student to develop his/her own text. Thus, students' tasks were the following: to analyze the format and structure of the article; to single out the general linguistic peculiarities appropriate to the English scientific articles (as, for example, the use of the author's "I" instead of Ukrainian "we", the use of impersonal passive constructions, differences in the use of punctuation marks in quotations, etc.); to make the list of terms, expressions, speech patterns and examples characteristic of scientific English in the field of professional subjects. As a result of their analytical work, students presented "Tips for writing a scientific article" and the list of word combinations, phrases and expressions that they could use in their further study.

The second stage (discussion stage) providing the discussion of the obtained results included three steps. As the first step each group member presented the part of their work: a) the analysis of scholarly journals; b) the analysis of a certain type of the scientific article; c) tips for writing a scientific article.

The second step was the total-group discussion, which had a generalizing character. According to G. Kelly, "a person must phrase his experience to make sense out of it" [5, p. 52]. Students acknowledged new information expressed by others, had an opportunity to qualify or justify their own views in light of the information presented, and asked questions that helped them to summarize the information and connect the ideas. The learning objective was to create instructions how to write a scientific article on the basis of the tips made by the groups.

Discussion implies interaction. The interaction in the process of discussion provided a framework within which MA students could share ideas, activate

their linguistic knowledge, enhance their knowledge of the structure and linguistic peculiarities of scientific articles, have effective practice with colleagues and promote their professional scientific discourse. In the words of W. Rivers: "Through interaction, students can increase their language store as they … read linguistic material, or even the output of their fellow students in discussion, skits, joint problem-solving tasks, or dialogue journals. In interaction, students can use all they possess of the language – all they have learned or casually absorbed – in real-life exchanges" [6, pp. 4-5].

As the next step MA students were given the teacher's version of a short guide to writing scientific articles. Every point was also discussed and compared with the tips singled out by the students considering the peculiarities of various types of articles. As a result, a guide to effective writing scientific articles was formulated.

At the third stage (cooperative writing stage) according to T. Mordovina's [2] adopted recommendations, students' task was to write mini articles on the basis of information suggested by the teacher. For example, they were offered to write the review article – to give a critical review of the benefits and drawbacks of some theories. This activity embraced such steps as planning, drafting, drafting revising, editing and writing the final version of the article. It involved peer-checking of students' articles and peer-reviewing. Although writing the article was an individual task, students continued to work in small groups as this task required other student's criticism (peer-checking) and assessment (peer-reviewing). These activities contributed to the development of MA students' professional skills in teaching and in scientific communication. For peer-reviewing students were given the scale containing evaluation criteria. The teacher's role was generally monitoring and consulting.

Group discussion of student-generated pieces of writing was an important aspect of the work. For example, when discussing such important points as a fully functional title, punctuation, the peculiarities of British and American spelling, the appropriate format of bibliography, the problem of plagiarism were touched upon.

The fourth stage (creative stage) involved almost the same steps as the previous one (planning, drafting, drafting revising, editing and writing the final version of the article), but the articles written by MA students based on the material of their Master's theses. The articles were submitted for reviewing to the teachers of the department. The final step of the creative stage provided the discussion of the results of article reviewing. The students' pieces of writing that were reviewed successfully got recommendation for publication.

The tasks of the first stage implied MA students' self-study, the third and the forth stages involved both, class and self-study activities, while the second stage was realized only in classroom.

The implementation of this scheme progressed successfully as MA students become more proactive and effective in writing articles. They had an

opportunity to develop through personal interpretation of the information, self-evaluation and discussion between the members of the groups, between students and teacher, in the process of total-group discussion.

After the end of the fourth stage MA students were asked to fill in questionnaire on how effective such scheme of work was. The analysis of evaluation questionnaire revealed students' positive attitude to the given tasks and stages. They emphasized the usefulness and effectiveness of interactive techniques in teaching writing scientific articles providing a rationale for the scheme implementation.

To conclude, a scientific article is one of the main challenges facing MA students. Teaching MA students how to write scientific articles by using the suggested scheme contributes to the improvement of their professional scientific literacy in the field, development of their skills in international scientific communication and professional discourse.

Future research may perhaps reveal more about how interactive approach promotes scientific language acquisition.

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