



Development of Doctoral Students' Academic Skills in the Framework of the Study Course "English For Research Professionals"

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Abstract

Studying foreign languages for academic purposes prepares students for the specific academic requirements at the tertiary level of education. English as the language of international exchange aims not only to improve students' level of English, but also to develop the language skills necessary for the academic environment, such as reading research articles in the students' scientific disciplines, understanding vocabulary of the field, listening to lectures, taking notes, discussing scientific problems, presenting the results of their research, critical thinking, time management, etc. As regards the situation of EAP (English for Academic Purposes) in Latvia University of Life Sciences and Technologies (LBTU), the study course "English for Research professionals" is included in the 1st year of the doctoral study programme curriculum. A blended learning approach has been implemented in the course. The aim of the present article was to investigate the development of academic skills of doctoral students in the framework of the study course "English for Research Professionals"; therefore, a survey was carried out to investigate doctoral students' opinions regarding essential academic skills in foreign languages. The findings showed that reading, reviewing and evaluating scientific literature; using formal academic style in writing; and presenting the research results in front of the peers were selected as the most required academic skills. The survey also examined the participants' perceptions of whether these academic skills were developed in the study course "English for Research Professionals" in the blended learning format. Conclusions of the findings are presented in the end of the article.

Keywords: *English for academic purposes, academic skills in foreign languages, blended learning*

1. Introduction

Doctoral programmes at universities focus on training adult students to perform research in a specific subject field. Foreign languages for academic purposes as a part of the doctoral studies' curriculum prepare doctoral students for the specific academic requirements at the tertiary level of education and adds an international dimension to the studies. English as the language of international exchange aims not only to improve students' level of English, but also to develop the language skills necessary for the academic environment and research activities to publish papers in peer-reviewed international scientific journals. In addition, the labour market in recent years has put an emphasis on the necessity of soft skills (i.e., critical thinking, teamwork, problem solving, etc.). Therefore, doctoral students are required to have a combination of professional knowledge and skills, academic skills, and soft skills to achieve success in their professional and academic careers.

As regards the situation of EAP at Latvia University of Life Sciences and Technologies (LBTU), the study course "English for Research professionals" is included in the curriculum of the university's doctoral study programmes, its duration being one semester in the 1st year of studies. As a part of the course, doctoral students develop the language skills necessary for the academic environment, such as reading research articles in the students' scientific disciplines, understanding vocabulary of the field, listening to lectures, taking notes, discussing scientific problems, presenting the results of their research, etc. It should be noted that in the last three years, a blended learning approach has been employed. Online classes happen using the BigBlueButton (BBB) virtual classroom of the university's Moodle platform. In addition, a wide range of communication technology is available for academic staff to provide online content, such as the chat on the University page, Goggle docs, Kahoot, Miro, Padlet, and Mentimeter.

Doctoral study programmes entitle students to participate in extra-curriculum activities, i.e., international scientific conferences, thus motivating students to enrich their knowledge and develop academic English language skills. Doctoral students are encouraged to present the results of their



research activities in annual international scientific conferences organized by the university. For example, the annual conference “Students on their Way to Science” (<https://www.sws.llu.lv/>) for undergraduate, graduate and postgraduate students is traditionally organized at the university with participants from many countries over the years such as Latvia, Lithuania, France, the UK, Slovakia, Czech Republic, Bulgaria, Greece, Canada, the USA, Turkey and others. The conference — the working language of which is English — is aimed at dissemination of scientific research results, sharing experience, improvement of foreign language skills as well as cross-cultural competence, and establishment of international contacts.

2. Literature review

English for Academic Purposes (EAP) is a branch of ESP (English for Specific Purposes) which in the literature [1] has been divided into English for General Academic purposes (EGAP) and English for Specific Academic purposes. The first type refers to the skills associated with study activities: for example, reading research articles, listening to lectures, taking notes, time management, etc. The second type integrates general academic skills in foreign languages with the specific subject tasks involving cooperation with the corresponding subject department. The importance of developing academic skills is mentioned by such authors as Alexander, Argent and Spenser, [2] who mention that EAP courses should have a broader scope and meet doctoral students’ expectations to develop skills necessary for the academic community, and de Chazal, [3] who considers that the role of EAP is to provide students with standard academic skills and awareness of broad academic conventions. Ozola, Sinkus and Grasmann [4] believe that such language skills and aspects as research skills, public speaking, written communication, collaboration skills and critical thinking are necessary for the international scientific space to describe and present doctoral students’ research findings. The researchers Alexander, Argent and Spenser [2] suggest that student autonomy and critical thinking are developed along with learning a foreign language. English in EAP is the language of academic discourse; moreover, EAP courses focus on vocabulary, grammar and discourse features typical of the scientific texts and academic communication. The researchers [2] also argue that in EAP courses, information is conveyed and students are assessed mainly through written texts; however, according to the authors’ experience, developing public speaking skills has been increasingly practiced in recent years in EAP courses.

Relevant research was carried out by Watson and Lyons [5] to determine knowledge, attributes and skills that the mechanical engineering industry would like to see in engineering PhD students. The survey was based on the list of skills that were selected through analysis of job advertisements in the industry and was carried out among the working engineering PhD students. The results showed that such soft skills as learning independently, working in teams, written and oral communication, solving problems, and working independently were considered the most important skills, while marketing products and processes, managing others, and identifying customer needs were the least required skills for PhD students. The fact that students put communication skills in the 3rd place signifies how important language skills are in the world of work.

As the blended learning approach was used in the study process, advantages and disadvantages of the approach are worth mentioning. El-Mowafy et.al. [6] believe that blended learning should be used in professional higher education courses as it is the most appropriate way to satisfy the need of industry and profession and enhance student learning by maximizing the understanding of theoretical principles; gaining knowledge and development of technical, practical and professional skills; and ensuring students’ active involvement in the learning process.

The following are other advantages of blended learning described in research literature (Garrison, Vaughan [7], Namyssova et.al. [8], Linder [9], Yilmaz, Malone [10], Sinkus, Ozola [11]); higher levels of student achievement can be reached; students can access materials easily; students’ attitudes towards learning can be improved, students can work at their own pace and be ensured they fully understand new concepts before moving on; and learners can have more autonomy, self-regulation, and independence in order to succeed. Moreover, education is becoming personalised, replacing the model where a teacher stands in front of the classroom and everyone is expected to stay at the same pace. Students’ simultaneous independent and collaborative learning experience for university is facilitated; a student-centred approach can be used, teachers can support individual students who may need individualised attention, academic language skills and English communication skills can be developed, self-directed learning skills are promoted, and students become more confident in talking about their professional activities and research. As regards the disadvantages of blended learning, such experienced shortcomings come into mind, according to the authors’ opinion, as loss of the opportunity to communicate with the teacher and peers face-to-face, technical issues and internet



connection problems, insufficient IT skills of both teachers and students, and time consuming preparation for online classes on the behalf of teachers, etc.

3. Materials and methods

The aim of the study was to examine doctoral students' opinions regarding the academic skills' preparation level in the course "English for Research professionals" at the Latvia University of Life Sciences and Technologies (LBTU).

Following literature review on the topic and in order to achieve the aim of the research, a case study was used as the research method. It consisted of two stages: firstly, the respondents were asked to vote for the skills they considered important for a researcher and should therefore be developed in the study course "English for Research Professionals". After the first stage, the academic skills were ranked according to their priority in the respondents' opinion, and the least mentioned skills were excluded from the next stage. Secondly, at the end of the course, after having studied academic English during one semester, PhD students (n=26) participated in a survey to determine the respondents' opinions based on their self-assessment as to which of academic skills they had developed most during the course. The doctoral students' English language proficiency levels ranged from B1 to C1 (most students had levels B2 and C1).

4. Results and discussion

The study course "English for Research Professionals" at LBTU has been designed for doctoral students to develop the knowledge and skills needed to succeed in research work. It focuses on improving scientific writing, presentation and oral skills (discussion and fluency building); research vocabulary building; and ability to search for and select relevant information using authentic research literature.

As it was described above, a two-stage study design was implemented. The first stage of the research involved an online voting poll activity during the online lesson of the study course "English for Research Professionals". The E-Voting poll activity on the Moodle course enabled the doctoral students to vote via their smartphones or laptops and to have the results displayed on a graph in real time. The respondents had the possibility to choose multiple answers from the list of academic skills which was designed by the authors on the basis of the above literature review. The total number of answers was 120. The results in the order of priority are shown in 'Figure 1' below.

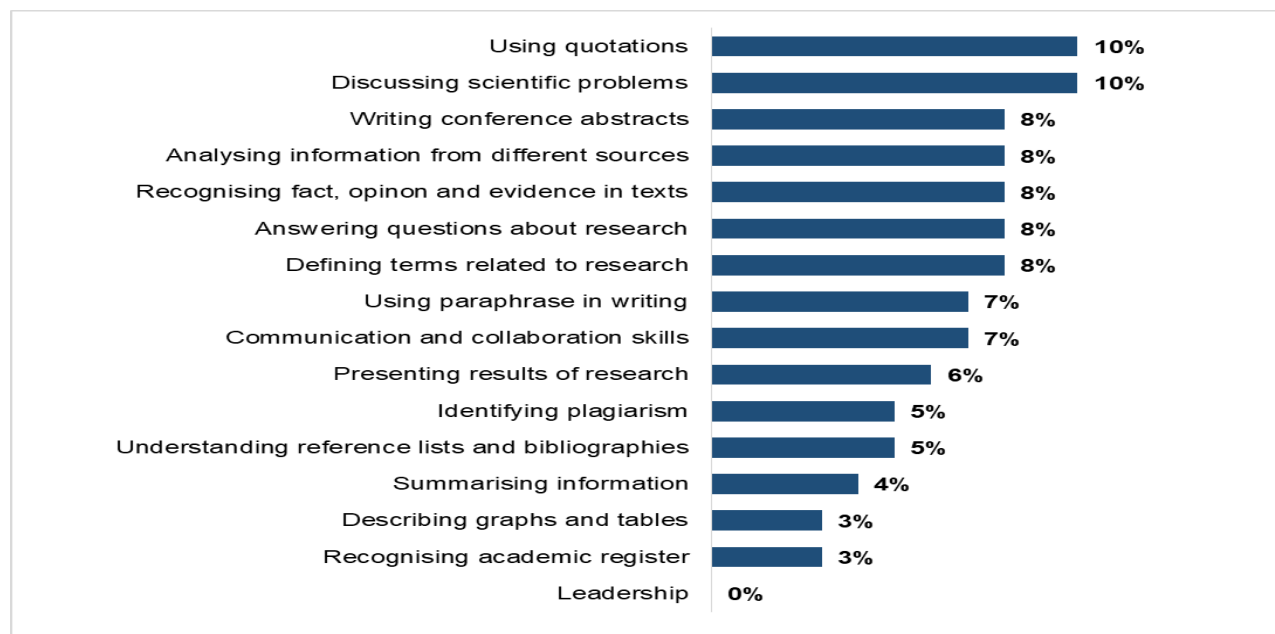


Fig.1. Doctoral students' opinion regarding the essential academic skills for a researcher

The findings identified fifteen important skills that a researcher should acquire, such as discussing scientific problems, using quotations, defining terms related to research, writing conference abstracts analysing information from different sources, etc. It can be concluded that doctoral students consider skills related to describing and presenting their research findings to be of great importance. It is



interesting to note that only one skill, 'leadership,' was not mentioned by the PhD students and, therefore, was excluded from the next stage of the present research. One explanation could be that the PhD students did not associate development of the academic language skills with leadership at work.

During the second part of the research, the PhD students participated in a survey which took place at the end of the course. Twenty-six PhD students (n=26) were asked to assess the level of their own academic skills' preparation in the framework of the course "English for Research Professionals." Students' reflections help them understand what they have achieved and assess if any progress has been made. The results of the survey are summarised in Table 1 below.

Table 1
Academic skills' preparation level in the English course: PhD students' self-assessment

Academic skills	Self-assessment of preparation level, %				Mean	Std. deviation	Rank
	Poor	Fair	Good	Excellent			
1. discussing scientific problems	7.7	15.4	53.8	23.1	2.92	.845	5
2. using quotations	11.5	30.8	15.5	42.3	2.88	1.107	6
3. presenting results of research	11.5	23.1	53.8	11.5	2.65	.846	8
4. defining terms related to research	7.7	46.2	38.5	7.7	2.46	.761	11
5. recognising academic register	7.7	15.4	38.5	38.5	3.08	.935	3
6. answering questions about research	11.5	38.5	34.6	11.5	2.48	.872	10
7. understanding reference lists and bibliographies	7.7	19.2	38.5	34.6	3.00	.938	4
8. describing graphs and tables	11.5	42.3	34.6	11.5	2.46	.859	11
9. recognising fact, opinion and evidence in texts	7.7	19.2	19.2	53.8	3.19	1.021	1
10. identifying plagiarism	0.0	38.5	42.3	19.2	2.81	.749	7
11. analysing information from different sources	3.8	15.4	42.3	38.5	3.15	.834	2
12. communication and collaboration with groupmates	3.8	19.2	30.8	46.2	3.19	.895	1
13. summarising information	11.5	38.5	26.9	23.1	2.62	.983	9
14. using paraphrase in writing	7.7	30.8	50.0	11.5	2.65	.797	8
15. writing conference abstracts	7.7	57.7	23.1	11.5	2.38	.804	12

By analysing PhD students' academic skill mean values and standard deviation, it can be concluded that they have developed the following skills better than other skills in the course:

1. recognizing fact, opinion and evidence in texts (mean 3.19, SD 1.021)
2. communication and collaboration with groupmates (mean 3.19, SD .895)
3. analyzing information from different sources (mean 3.15, SD .834)
4. recognizing academic register (mean 3.08, SD .935)
5. understanding reference lists and bibliographies (mean 3.00, SD .938)
6. discussing scientific problems (mean 2.92, SD .845)

The student reflections and self-assessment are very useful to analyse the effectiveness of the aspects and topics studied during the course and raise awareness of the areas that should be improved upon during the EAP course in the future. The results of the survey made it possible to compare students' and teachers' expectations from the course. The best result in the respondents' opinion was received by the academic skill "*the finding specific information while reading texts*", which could be explained by the importance of reading scientific texts in the subject field. The second priority was given to "*communication and collaboration with groupmates*". Doctoral students were actively participating in the discussions (they often worked in groups in BBB breakrooms of the Moodle platform). The result correlated with the point expressed by other authors on the collaboration in the EAP courses; for example, Duff [12] argues that academic discourse socialization is a socially situated process to help students become members of this academic discourse community. It is important for PhD students to communicate and collaborate not only with a teacher, but also with peers to become aware of the complicated nature of academic discourse and simultaneously to develop their English



language skills. The next three skills, "analyzing information from different sources", "recognizing academic register" and "understanding reference lists and bibliographies," refer to reading and writing scientific papers, which is in the core of the study course. The last one, "discussing scientific problems," focuses on the development of PhD students' speaking skills and signifies that students were given an opportunity to practice the skill during the lessons.

The results of the study show that the following skills received lower evaluation by the doctoral students:

- writing conference abstracts (mean 2.38 SD .804).
- describing graphs and tables (mean 2.46, SD .859),
- defining terms related to research (mean 2.46 SD .761).

This might be due to the complexity and specifications of the tasks to be accomplished. Therefore, in the future, more emphasis should be placed on practicing writing conference abstracts, describing graphs and tables, and defining terms related to research during lessons. Moreover, further studies would be necessary to explore how to improve these underdeveloped skills.

5. Conclusions

1. An EAP study course should have a broad scope and meet doctoral students' expectations to enrich their knowledge and develop skills important to become a member of the international academic community.
2. The results of the survey of the doctoral students' self-assessment show that the following skills have been better developed during the course: 1) recognizing facts, opinions and evidence in texts, 2) communication and collaboration with groupmates, 3) analyzing information from different sources, 4) recognizing academic register, 5) understanding reference lists and bibliographies, and 6) discussing scientific problems.
3. The skills that doctoral students have mentioned as the ones they have prepared most are the essential skills that allow them to successfully participate not only in research activities and the academic community, but also in various complex circumstances and spheres of life as they relate to critical thinking, the ability to relate to other people in society, and working productively in teams.

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