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ENRICHING THE RESEARCH COMPETENCE OF PROSPECTIVE EDUCATORS VIA ACADEMIC WRITING

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Abstract: Scientific writing is an essential element in the education of individuals within the contemporary educational environment. This study aims to assess the research proficiency and academic writing abilities of prospective instructors. A modified multiple-choice questionnaire was sent to 397 prospective teachers using Google Forms, an online survey platform. The survey data was statistically analyzed with the use of descriptive statistics. The study's results reveal that a significant number of prospective instructors have knowledge and comprehension of research competency and academic writing.

Key words: competency, research competence, academic writing, skills, pedagogical competence, scientific writing competency.

Introduction

Developing research competence in future educators, particularly in the area of ESL, poses a significant challenge. In our country, English is frequently taught as a second or foreign language, and due to significant progress in this area, many young individuals achieve proficiency in English at an early age. In higher education, students gain advanced knowledge and skills. In some instances, this may prove insufficient for enhancing their academic writing and research skills. Uzbekistan's education system should focus on enhancing higher education curricula that emphasize the significance of academic writing skills and research expertise.

Literature review

Scientific research entails the systematic and methodical elucidation, interpretation, and augmentation of data within the scientific realm. Scientific research is an objective, methodical, and multi-phase procedure grounded on proven facts, intended to enhance knowledge absent from current literature [4, p. 213]. Consequently, it can be said that during scientific study, each researcher methodically and clearly analyzes the collected data, thereby preparing and contributing to the field. Research entails pursuing answers to inquiries, necessitating a well devised strategy for execution, a principle applicable to all modalities of investigation in our everyday existence.

Within the framework of our dissertation, both research and competency are crucial concepts that need precise definitions. K. Riskulova defines “competence” as the rules, principles, regulations, norms, duties, tasks, and obligations necessary for a person in a certain domain. Competence pertains to an individual's practical engagement, defined as the capacity to exhibit competence standards in professional experience, driven by innovation in accordance with social demands. The main criteria are determined by effective performance and the cultivation of competitive talent [12, p. 14].

Thus, competence is vital for all future professionals and will enhance effective performance throughout their careers. In this environment, as we concentrate on future professionals, namely educators, the importance of pedagogical and professional competence is unprecedented. Research competence essentially propels the future expert towards self-enhancement and personal development, fostering contributions to research, while professional competence ensures the precise dissemination of acquired knowledge.

The textbook "General Pedagogy," written by N. Atayeva, M. Salayeva, and S. Hasanov, characterizes pedagogical competence as a skill, depicting it as the hallmark of a proficient and skilled practitioner in the discipline. A teacher-educator has an extensive comprehension of their topic, the capacity to examine pertinent subjects proficiently, and mastery of pedagogical methods [1, p. 452].

We assert that the words professional competence and pedagogical competences may be used interchangeably.

Professional competence denotes the ability of future educators to understand the subject matter, ensure its relevance, and apply it effectively in teaching situations. In the professional domain, expertise, qualifications, and skills are crucial; nonetheless, the cultivation of personal characteristics and effective social interaction is of utmost importance [16, p. 78]. Therefore, in fostering professional competence, it is important to provide several opportunities for the aspiring teacher to develop personal traits and define their societal position.

Professional competence is a component of pedagogical ability that guarantees the effectiveness of educational efforts, functioning as a measure of professionalism, with the efficacy and success of professional activities as its indicators [10, p. 20]. Thus, professional competency is essential in the educational pursuits of a prospective teacher, acting as an indicator of their skill and a standard for successful results.

The professional development of a foreign language educator starts with the teaching of a foreign language as a second language. The justification is that, as a cohesive system of language acquisition, teaching, and assessment, each phase must be based on ongoing communicative learning [12, p. 21]. Thus, it can be said that the future expert will augment their professional abilities after years of schooling. During these courses, participants augment their research skills and actively engage in scientific pursuits. This illustrates not their scientific pursuits for a certain degree, but rather their educational research, publication of academic works, and investigation undertaken when teaching.

UNESCO publications describe “competence” as a methodical amalgamation of values, attitudes, knowledge, and skills encountered daily. It asserts that the paramount competencies of the 21st century encompass:

- Continuous learning (curiosity, critical analysis, ongoing inquiry);
- Independence (entrepreneurship, accountability, self-worth, innovation, resilience);
- Interaction with others (respect, openness, empathy, collaboration, camaraderie, leadership);
- Interaction with the world (environmental stewardship, global awareness);
- Interaction with diverse tools and resources (creative, rational, ethical, and sustainable utilization of technology and available assets);
- Transdisciplinary (systemic thinking, establishing connections, devising solutions to global challenges);
- Multiliteracy (intercultural competence, health literacy, scientific literacy, data literacy, financial literacy, numeracy, general literacy) [11].

The competencies endorsed by UNESCO, including Continuous Learning and Multiliteracies, are intrinsically linked to research competence and are crucial for the professional development of future specialists.

In many circumstances, research competency is termed “scientific competence”. For example, various global entities, including the Organization for Economic Cooperation and Development (OECD) and the Program for International Student Assessment (PISA), as well as from international scholars such Beghetto [2], Bybee [3], Chun-Yen [5], Cohen, Manion, Morrison [6], Kind and Osborne [7], Krell et al. [8], Lijnse and Klaassen [9], Schwartz et al. [15], and Sadler and Zeidler [14] did study on scientific competence. Consequently, the previously stated study conducted by scholars is significant for understanding scientific capability.

Research Methodology

The study included 397 future educators from four institutions: Uzbekistan State University of World Languages, National University of Uzbekistan after Mirzo Ulugbek, Bukhara State University, Jizzakh State Pedagogical University, and Samarkand State Institute of Foreign Languages.

This research used a 20-item multiple-choice questionnaire, divided into four separate portions. The poll was conducted with potential instructors from five colleges in Uzbekistan using

the web application Google Forms. The survey has three components. The introductory segment collects demographic data and learning characteristics of the participants. The second section evaluates their feelings, beliefs, and motivation toward L2 writing. The final section assesses the digital literacy abilities of both pre-service and in-service educators. The fourth component evaluates the frequency of receiving input and implementing adjustments.

Results and Discussions

In order to assess their writing proficiency, the participants were queried about their level of writing expertise. In the table below, you can see the preliminary results of the survey of future specialists (see Table 1):

Table 1

Results of a survey conducted among students

Universities / Questions	UzSUWL		UzNU		BuxSu		SamSIFL		JSPU	
	EG	CG	EG	CG	EG	CG	EG	CG	EG	CG
State your level of English:										
Pre-intermediate	4	5	4	5	6	5	6	5	5	6
Intermediate	15	14	14	15	14	15	17	16	13	14
Upper intermediate	17	18	16	14	15	14	14	15	14	14
Advanced	5	5	4	5	5	6	6	5	4	3
How would you describe your level of Writing Proficiency?										
Advanced	4	5	4	5	4	5	5	4	4	5
Very good	13	13	12	13	14	13	15	16	13	13
Good	18	17	16	16	16	15	17	15	14	15
Weak	6	7	6	5	6	7	6	6	5	4
How well do you know about research competence?										
I am familiar or very familiar with it	15	15	12	14	16	13	15	14	13	14
I know the main idea	20	21	19	18	19	20	21	22	18	18
I only have a vague idea	4	3	4	3	3	4	3	2	3	2
I have never heard of it	2	3	3	4	2	3	4	3	2	3
In general, you find writing assignments in English:										
Easy	6	7	8	9	6	8	8	9	6	7
Difficult	15	14	13	12	15	14	15	14	10	11
Very difficult	12	12	10	10	10	10	13	10	14	12
Neither difficult nor easy	8	9	7	8	9	8	7	8	6	7
The references you mostly use:										
Books	15	16	14	16	15	15	16	17	14	13
Journals	8	9	10	11	12	11	14	13	13	11
Both	18	17	14	12	13	14	13	11	10	13
Put a tick next to the weaknesses or difficulties in your academic writing:										
Paraphrasing/Summarizing	2	3	2	1	2	2	3	2	1	2
Language use (spelling, punctuation, grammar and vocabulary)	3	3	4	2	2	3	2	3	2	2
Finding relevant references/resources	5	6	5	7	7	6	7	7	6	5
Referencing and citation	6	5	4	6	7	6	6	6	7	6
Coherence and cohesion	6	6	5	6	7	6	7	6	5	6
Choosing a significant topic	3	3	4	2	2	3	2	3	2	2
Presenting data on statistical style	3	4	3	2	3	2	4	3	3	4

Writing the paragraph into suitable order	3	3	3	3	3	2	3	3	2	2
Writing literature review	6	6	5	7	5	7	5	5	6	5
Writing introductions/ conclusions	4	3	3	3	2	3	4	3	2	2
What kinds of internal factors are contributing to your difficulties in academic writing?										
Lack of confidence	14	14	11	11	13	11	11	12	13	14
Self-motivation	11	10	8	9	10	10	11	9	6	7
Lack of knowledge & ideas	14	15	16	17	15	16	17	17	13	14
Feeling of under-pressure	2	3	3	2	2	3	4	3	4	2
What kinds of external factors are contributing to your difficulties in academic writing?										
Teacher's teaching style	9	9	10	11	10	12	9	9	10	11
Classroom atmosphere	7	8	6	7	6	5	7	6	4	5
Materials	10	10	9	10	11	12	13	13	9	10
Lack of corrective feedback by the teacher/supervisor	8	8	6	6	7	6	8	7	9	6
Unresponsive teacher	7	7	7	5	6	5	6	6	4	5
What kinds of digital tools do you use in academic writing?										
Grammarly	5	6	4	5	4	5	6	7	4	3
Quill bot	3	2	2	1	2	2	2	1	1	1
Turnitin	0	1	1	0	1	1	0	1	0	0
Mendeley, Zotero	1	2	1	2	1	2	2	1	1	1
Google	6	7	8	9	7	8	8	8	6	7
Google dictionary	5	6	5	6	6	7	7	7	6	7
Online websites	6	5	5	6	8	7	6	5	4	4
Google translator	6	5	6	5	5	4	5	5	6	5
YouTube videos	4	3	3	2	3	2	4	3	4	4
Antiplag.uz	5	5	3	3	2	2	3	3	4	5
If you use above digital tools, how often do you use them?										
Never	4	5	4	5	3	5	4	3	5	4
Rarely	9	8	9	9	8	6	9	8	6	7
Frequently	20	21	19	18	20	21	22	23	17	18
Very frequently	8	8	6	7	9	8	8	7	8	8
For what purposes do you use above digital tools?										
To have correct spellings/punctuations	6	7	5	6	4	5	8	7	4	4
To minimize grammatical errors	6	5	7	8	5	6	4	5	6	7
To have accurate word choices	5	6	4	5	7	8	6	4	4	5
To write well-crafted sentences	6	7	5	6	4	5	7	8	6	7
To organize my writing ideas	8	9	10	9	11	12	10	10	8	7
To have correct referencing	4	3	2	2	3	2	3	3	2	3
To verify papers for plagiarism	6	5	5	4	6	6	5	4	6	4

We considered it suitable to investigate the following issue for analysis. The data reveals that more than 80% of participants prefer writing in English, with a roughly same proportion of students selecting the examination of examples before creating in English. Moreover, several participants indicate "Disagree" and "Not sure" in response to the following questions, therefore underscoring the importance of the problem being examined (see Table 2):

Table 2

Participants' perceptions about academic writing

Please read the statement below and mark each row to show how much you agree or disagree:											
№	**Questions**	**Strongly Agree**		**Agree**		**Disagree**		**Strongly disagree**		**Not sure**	
		1	**%**	**2**	**%**	**3**	**%**	**4**	**%**	**5**	**%**

1	I enjoy writing in English	134	33	213	54	27	7	13	3	10	2
2	I do not enjoy writing in English because it is a very difficult skill for me	50	12	68	17	117	29	142	36	20	5
3	I feel that I can be a good writer if I practice writing regularly	120	30	200	50	37	9	29	7	11	3
4	I prefer to look at a writing model before I start writing in English	114	29	187	47	41	10	36	9	19	5
5	Academic writing is not an important skill for me	25	6	43	11	203	51	118	30	8	2
6	Academic writing skills are necessary for my current graduate studies & publishing	94	24	119	30	84	21	44	11	56	14
7	Academic writing is important for your future career	109	27	138	35	50	12	35	9	65	16
8	I am a good writer in both Uzbek and English	75	19	79	20	146	37	67	17	30	7
9	I think the writing traditions in Uzbek and English are quite different	207	52	90	23	38	9	42	10	20	5
10	In terms of writing style, Uzbek and English are similar	87	22	52	13	183	46	50	12	25	6
	MEAN		**25**		**30**		**23**		**14**		**6**

The table below provides insights into the participants' utilization of sources in academic writing, their awareness of plagiarism, and their engagement with platforms such as Research Gate, Academia, and Google Scholar (refer to Table 3):

Table 3

Participants' use of sources in academic writing

Please read the statement below and mark each row:							
№	**Questions**	**Yes**		**No**		**Not sure**	
		1	**%**	**2**	**%**	**3**	**%**
1	I can use reliable sources for my academic writing	247	62	87	22	63	16
2	I can understand which information on the Internet that I can or cannot use as references for my writing	232	58	76	19	89	22
3	I am aware of copyright or ownership of any online materials	216	54	128	32	53	13
4	I understand what is plagiarism	376	95	12	3	9	2
5	I check my article using online plagiarism checker before submission	107	27	215	54	75	19
6	I have academic social network/website/apps such as Research Gate, Academia, Google Scholar for sharing knowledge	64	16	237	60	96	24

7	I can use Google with appropriate key words to find some references	217	55	93	23	87	22
8	I can use online application that retrieves and analyzes academic citation such as Publish or Perish	37	9	256	64	104	26
9	I can use video/audio conferencing services (Zoom, Google Meet)	325	82	48	12	24	6
10	I can create online surveys (Google Forms, Survey Monkey)	98	25	193	49	106	27
	MEAN		**48**		**34**		**18**

The table below elucidates the role of educators in enhancing academic writing, their engagement with students, the feedback provided, and the aspects students prioritize in academic writing (refer to Table 4):

Table 4

The role of educators in enhancing academic writing

Please read the statement below and mark each row to show how frequent the given statements in your studies:									
№	**Savollar**	**Always**		**Sometimes**		**Rarely**		**Never**	
		1	**%**	**2**	**%**	**3**	**%**	**4**	**%**
1	I receive an oral and written instruction about how to carry out an academic writing	73	18	120	30	196	49	8	2
2	I discuss about my academic writing with my teacher/supervisor	64	16	105	26	215	54	13	3
3	My teacher/supervisor assign a writing task and demonstrate how to plan and carry it out	57	14	158	40	163	41	19	5
4	I get feedback about how to structure my written papers	36	9	144	36	200	50	17	4
5	I go back to my writing to revise the content and make my ideas clearer	198	50	154	39	39	10	6	1
6	I go back to my writing to edit grammar, vocabulary, spelling and punctuation	200	50	150	38	40	10	7	2
7	In my assignment, in general, I pay more attention to the language (spelling, grammar) than to the content (ideas)	183	46	163	41	36	9	15	4
8	I pay more attention to the content (ideas, organization) than to the language (spelling, grammar, etc)	65	16	75	19	243	61	14	3
9	I give almost equal attention to the both content (ideas, organization) and the language (spelling, grammar, etc)	152	38	176	44	58	15	11	3
10	I discuss my work with other students to get feedback on how I can improve it	38	9	76	19	187	47	96	24
	MEAN		**27**		**33**		**35**		**5**

Conclusion

The study's results reveal that participants had favorable views of their research competence and academic writing skills. Many respondents acknowledge some shortcomings in their academic writing; however, they maintain a significant degree of confidence in their overall writing skills. The quantitative data collected from respondents indicates their research capabilities, reflecting varying levels of involvement in research activities such as researching, reading publications, and sometimes writing papers. Moreover, they demonstrate digital proficiency in using research tools, enabling them to skillfully use digital technology in their academic pursuits and inquiries.

References:

1. Atayeva N., Salayeva M and Hasanov S. General Pedagogy (Theory and Practice of Pedagogy), Study guide. Book II. Based on the general editing by H. Boboyev. - T.: "Science and Technology", 2013. 735 p.
2. Beghetto R. A.. Factors Associated with Middle and Secondary Students' Perceived Science Competence // Journal of Research in Science Teaching, 4(6), 2007. Pp. 800–814.
3. Bybee R., McCrae B., & Laurie R. PISA 2006: An Assessment of Scientific Literacy // Journal of Research in Science Teaching, 46(8), 2009. Pp. 865–883.
4. Çaparlar C. Ö., & Dönmez A. What is Scientific Research and How Can it be Done? // Turkish journal of anaesthesiology and reanimation, 44(4), 2016. Pp. 212–218.
5. Chun-Yen T. Improving Students' PISA Scientific Competencies Through Online Argumentation. International // Journal of Science Education, 37(2), 2015. Pp. 321–339.
6. Cohen L., Manion L., & Morrison K. Research Methods in Education. Routledge. 2007. 362 p.
7. Kind P., & Osborne J. Styles of Scientific Reasoning: A Cultural Rationale for Science Education? // Science Education, 101, 2017. Pp. 8–31.
8. Krell M., Vorholzer A., & Nehring A. Scientific Reasoning in Science Education: From Global Measures to Fine-Grained Descriptions of Students' Competencies // Education in Science, 12, 2022. P. 97.
9. Lijnse P. L., Klaassen C. W. J. M. Didactical Structures as an Outcome of Research on Teaching–learning Sequences? // International Journal of Science Education, 26(5), 2004. Pp. 537–554.
10. Mamatkulov Kha.A. Improvement of Information-methodological Support for the Development of Professional Competence in Foreign Languages among Pedagogues. Diss.. Ped. science. doctor of philosophy Tashkent.: 2007. 200 p.
11. Marope M., Griffin, P., & Gallagher, C. Future Competence and the Future of Curriculum. UNESCO-IBE: Geneva. 2017.URL: https://www.ibe.unesco.org/en/articles/competences
12. Rashidova F.M. Improving the Professional Competence of Foreign Language Teachers. Tashkent : 2016. P. 21.
13. Riskulova K.J. System of Formation of Sociolinguistic Competence of Future English Language Teachers. Autoref. diss. ... ped. science. Tashkent : 2017. 14 p.
14. Sadler T. D., & Zeidler, D. L. Scientific literacy, PISA, and Socio-scientific Discourse: Assessment for Progressive Aims of Science Educatio //. Journal of Research in Science Teaching, 46(8), 2009. Pp. 909–921.
15. Schwartz I., Adler I., Madjar N., & Zion M. Rising to the Challenge: The Effect of Individual and Social Metacognitive Scaffolds on Students' Expressions of Autonomy and Competence Throughout an Inquiry Process // Journal of Science Education and Technology, 30, 2021. Pp. 582–593.
16. Зимин В. Н.. Инновационная деятельность в системе повышения квалификации как фактор роста профессиональной компетентности инженерно-педагогических работников : диссертация ... кандидата педагогических наук : 13.00.01. Улан-Удэ, 2005. 200 с.

СОВЕРШЕНСТВОВАНИЕ ИССЛЕДОВАТЕЛЬСКОЙ КОМПЕТЕНЦИИ БУДУЩИХ ПЕДАГОГОВ С ПОМОЩЬЮ АКАДЕМИЧЕСКОГО ПИСЬМА

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Аннотация. Научное письмо является неотъемлемым элементом современной образовательной среды. Целью данного исследования является оценка исследовательской компетентности и академических навыков письма будущих преподавателей. Модифицированная анкета с множественным выбором была отправлена 397 будущим преподавателям с помощью Google Forms, онлайн-платформы для опросов. Данные опроса были статистически проанализированы с использованием описательной статистики. Результаты исследования показывают, что значительное число будущих преподавателей обладают знаниями и пониманием исследовательской компетентности и академического письма.

Ключевые слова: компетентность, исследовательская компетентность, академическое письмо, навыки, педагогическая компетентность, компетентность научного письма.

References

1. Atayeva N., Salayeva M and Hasanov S. General Pedagogy (Theory and Practice of Pedagogy), Study guide. Book II. Based on the general editing by H. Boboyev. T.: "Science and Technology", 2013. 735 p.

2. Beghetto R. A.. Factors Associated with Middle and Secondary Students' Perceived Science Competence // Journal of Research in Science Teaching, 4(6), 2007. Pp. 800–814.

3. Bybee R., McCrae B., & Laurie R. PISA 2006: An Assessment of Scientific Literacy // Journal of Research in Science Teaching, 46(8), 2009. Pp. 865–883.

4. Çaparlar C. Ö., & Dönmez A. What is Scientific Research and How Can it be Done? // Turkish journal of anaesthesiology and reanimation, 44(4), 2016. Pp. 212–218.

5. Chun-Yen T. Improving Students' PISA Scientific Competencies Through Online Argumentation. International // Journal of Science Education, 37(2), 2015. Pp. 321–339.

6. Cohen L., Manion L., & Morrison K. Research Methods in Education. Routledge. 2007. 362 p.

7. Kind P., & Osborne J. Styles of Scientific Reasoning: A Cultural Rationale for Science Education? // Science Education, 101, 2017. Pp. 8–31.

8. Krell M., Vorholzer A., & Nehring A. Scientific Reasoning in Science Education: From Global Measures to Fine-Grained Descriptions of Students' Competencies // Education in Science, 12, 2022. P. 97.

9. Lijnse P. L., Klaassen C. W. J. M. Didactical Structures as an Outcome of Research on Teaching–learning Sequences? // International Journal of Science Education, 26(5), 2004. Pp. 537–554.

10. Mamatkulov Kha.A. Improvement of Information-methodological Support for the Development of Professional Competence in Foreign Languages among Pedagogues. Diss.. Ped. science. doctor of philosophy Tashkent.: 2007. 200 p.

11. Marope M., Griffin, P., & Gallagher, C. Future Competence and the Future of Curriculum. UNESCO-IBE: Geneva. 2017.URL: https://www.ibe.unesco.org/en/articles/competences

12. Rashidova F.M. Improving the Professional Competence of Foreign Language Teachers. Tashkent : 2016. P. 21.

13. Riskulova K.J. System of Formation of Sociolinguistic Competence of Future English Language Teachers. Autoref. diss. ... ped. science. Tashkent : 2017. 14 p.

14. Sadler T. D., & Zeidler, D. L. Scientific literacy, PISA, and Socio-scientific Discourse: Assessment for Progressive Aims of Science Educatio //. Journal of Research in Science Teaching, 46(8), 2009. Pp. 909–921.

15. Schwartz I., Adler I., Madjar N., & Zion M. Rising to the Challenge: The Effect of Individual and Social Metacognitive Scaffolds on Students' Expressions of Autonomy and Competence Throughout an Inquiry Process // Journal of Science Education and Technology, 30, 2021. Pp. 582–593.

16. Zimin V. N. Innovative Activity in the System of Advanced Training as a Factor in the Growth of Professional Competence of Engineering and Teaching Staff: Diss…, Cand. ped. sciences. Ulan-Ude, 2005. 200 p.