

Торайғыров университетінің
ҒЫЛЫМИ ЖУРНАЛЫ

НАУЧНЫЙ ЖУРНАЛ
Торайғыров университета

Торайғыров университетінің ХАБАРШЫСЫ

Педагогикалық сериясы
1997 жылдан бастап шығады



ВЕСТНИК ТОРАЙГЫРОВ УНИВЕРСИТЕТА

Педагогическая серия
Издается с 1997 года

ISSN 2710-2661

№ 3 (2026)

Павлодар

НАУЧНЫЙ ЖУРНАЛ
Торайгыров университета

Педагогическая серия
выходит 4 раза в год

СВИДЕТЕЛЬСТВО

о постановке на переучет периодического печатного издания,
информационного агентства и сетевого издания

№ KZ03VPY00029269

выдано

Министерством информации и коммуникаций
Республики Казахстан

Тематическая направленность

публикация материалов в области педагогики,
психологии и методики преподавания

Подписной индекс – 76137

<https://doi.org/10.48081/BTOUP3.2026/ISSN2710-2661>

Бас редакторы – главный редактор

Тулекова Г. М.

доктор PhD, профессор

Заместитель главного редактора

Жуматаева Е., *д.п.н., профессор*

Ответственный секретарь

Попандопуло А. С., *доктор PhD, профессор*

Редакция алқасы – Редакционная коллегия

Мағауова А. С.,

д.п.н., профессор

Бекмағамбетова Р. К.,

д.п.н., профессор

Самекин А. С.,

доктор PhD, ассоц. профессор

Син Куэн Фунг Кеннет,

д.п.н., профессор (Китай)

Желвис Римантас,

д.п.н., к.псих.н., профессор (Литва)

Авагян А. В.,

д.п.н., ассоц. профессор (Армения)

Томас Чех,

д.п.н., доцент п.н. (Чешская Республика)

Искакова З. С.

технический редактор

За достоверность материалов и рекламы ответственность несут авторы и рекламодатели

Редакция оставляет за собой право на отклонение материалов

При использовании материалов журнала ссылка на «Вестник Торайгыров университета» обязательна

<https://doi.org/10.48081/BTOUP3.2026/610-630>

***G. K. Meirbekova¹, Zh. N. Suleimenova²,
G. K. Zhylykbaï³, A. K. Meirbekov⁴**

^{1,3} Khoja Akhmet Yassawi International

Kazakh-Turkish University,
Republic of Kazakhstan, Turkestan;

²Kazakh National Women's Teacher Training University,
Republic of Kazakhstan, Almaty;

⁴International University of Tourism and Hospitality,
Republic of Kazakhstan, Turkestan.

¹ORCID: <https://orcid.org/0000-0002-3509-2158>

²ORCID: <https://orcid.org/0000-0002-1891-2134>

³ORCID: <https://orcid.org/0000-0002-1950-8686>

⁴ORCID: <https://orcid.org/0000-0003-4609-1035>

*e-mail: gulnara.meirbekova@ayu.edu.kz

IMPACT OF SCIENTIFIC DISCOURSE TRAINING ON FUTURE PHILOLOGIST-TEACHERS' SPEECH CULTURE

This article examines the impact of scientific discourse on shaping the professional speech culture of future philologist-teachers by considering its role as a specialized, semantically rich language that fosters essential communication skills. The research goal was to reveal the main characteristics of oral and written scientific discourse facilitating professional speech culture and empirically investigate the effectiveness of teaching students these discourse conventions in improving academic speaking and writing skills. The research methodology was a theoretical, descriptive, and comparative analysis of scientific discourse, as well as a pre-test/post-test experimental design with a control group in the Professional Speech Culture course with a total of 40 students: 20 in the control group and 20 in the experimental group. The students were required to produce an abstract-style written discourse piece and an oral mini-report before and after instruction in both groups. The students' performance was rated using an analytic rubric on six

criteria: terminology, organization, clarity/precision, argumentation, academic register, referencing/intertextuality. The results revealed that discourse instruction has a greater and more consistent impact on students' improvement than regular instruction, especially in clarity/precision, academic register, referencing/intertextuality. Overall, students' mastery of oral and written scientific discourse helps them achieve clarity, precision, and argumentation in communication, which are essential in professional communication, and provides guidelines for improving academic training for future philologist-teachers.

Keywords: professional speech culture, scientific discourse, academic discourse, future philologist-teachers, scientific communication.

Introduction

In today's academic and professional world, the ability to communicate effectively and professionally has become an indispensable skill for philologist-teachers. Culture of speech that contains exact style of language, precise purpose for conversing and adherence to societal standards is needed for every and all professional spheres. These skills are essential for philologist-teachers to meet the requirements of their field, communicate clearly, and have a significant impact, whether they are working in research, teaching, or literary criticism.

Professional communication is essential for successful practice, involving both spoken and written forms of interaction. Among other things, normativity, linguistic variety, functional styles, and semantic richness are important aspects of speech culture. These qualities are supported by A. Ksenofontova, who identifies professional speech culture as deliberate choosing and usage of any language tools that assist efficient exchange of information [1, p. 35].

O.B. Sirotnina makes a distinction between defining speech culture as a teacher's mastery of speech – the ability to choose the best linguistic resources for a particular communicative situation – and seeing it as adherence to literary language rules [2, p. 315]. According to this viewpoint, speech culture encompasses an individual's ability to effectively apply a wide range of linguistic means in communication, including the capacity to generate new knowledge on a subject.

An essential element of a professional culture is speech culture, and its high level of development is crucial for establishing effective and productive interaction [3, p. 75]. The content of speech culture includes not only a deep understanding and confident mastery of the modern language system but also the ability to carry out scientifically informed and reasoned speech activities based on these factors. Mastering an advanced level of speech culture enables the philologist-teacher

to influence the interlocutor in a positive way, fostering their personal development and assisting in the successful resolution of educational tasks.

Speech culture, understood as the ethical and goal-oriented mastery of language norms and communicative effectiveness, becomes fully professional only when future philologist-teachers can operate confidently within scientific discourse – the mode of speech that demands precision, logical coherence, evidence-based argumentation, and responsible attribution. In this way, scientific discourse is not distinct from speech culture, but rather one of its most advanced forms. It teaches educators how to convert complicated information into understandable, convincing, and academically acceptable communication, which is crucial for both communicating science and completing actual educational assignments.

In today's dynamic academic and professional environment, effective science communication is vital. It serves as the link between researchers and broader audiences, transforming specialized scientific discourse into clear, accessible language [4].

Scientific discourse is a semantically dense specialized language [5, p. 16] since it includes argumentation that offers logical interpretations of empirical data, scientists employ language in a precise manner to convey their findings, formulate arguments and plausible explanations, exchange ideas, and derive conclusions [6, p. 457].

The primary objective of scientific discourse is to generate new knowledge about a subject or phenomenon, expressed verbally and governed by the communicative principles of scientific exchange – logical structuring, validation of truth or falsehood in statements, and a high level of abstraction regarding the subject matter [7, p. 57].

Science communication spans a wide range of interactions, from public-facing activities – such as science popularization, enhancing public understanding, and outreach – to exchanges among experts within scientific communities [4]. The nature of science communication ensures not only that scientific knowledge is disseminated and demystified for broader audiences but also that it is critically examined and advanced within expert communities, ultimately strengthening both societal understanding and the integrity of the scientific enterprise.

A proficient philologist-teacher is anticipated to be a comprehensive professional – exhibiting not only extensive academic knowledge, practical skills, and experiential insight – but also adeptly utilizing scholarly terminology; teaching skills; demonstrating an understanding of global history, culture, and regional studies; applying diverse stylistic techniques in literary composition; executing comparative and analytical examinations of linguistic components; identifying principal ideas and themes; correlating facts, events, and concepts; investigating cultural and historical

data pertaining to various nations; formulating outlines to reconstruct read or auditory material; and producing clear and effective notes [8, p. 230].

Since professional speech culture encompasses scientific discourse, and given that philologist-teachers often engage in research and academic communication, the purpose of this article is to explore how scientific discourse contributes to the development of professional speech culture among future philologist-teachers. Mastering scientific discourse is a fundamental aspect of a philologist-teachers' professional competence, as it enables them to articulate research findings, construct well-reasoned arguments, and engage in scholarly discussions with clarity and precision. As scientific discourse is an integral component of professional speech culture and plays a crucial role in the academic and research activities of philologist-teachers, this study seeks to answer the following question: How does scientific discourse influence the development of professional speech culture among future philologist-teachers?

Materials and methods

This study employed a two-component design combining (1) a theoretical discourse analysis of scientific/academic communication and (2) a classroom-based quasi-experimental intervention that tested whether explicit instruction in scientific discourse conventions improves elements of future philologist-teachers' professional speech culture. The integration of these components allowed the study to connect conceptual characteristics of scientific discourse with observable changes in students' written and oral academic performance.

Theoretical analysis was used to synthesize existing conceptual frameworks of scientific and academic discourse.

Descriptive analysis was used to catalog the distinctive features and structures of scientific discourse in its various forms.

Comparative analysis was used to reveal how different discourse types contribute to the development of professional speech culture.

The research materials comprise a curated selection of seminal publications – monographs, textbooks, dissertations, and peer-reviewed journal articles from domestic and foreign outlets indexed in international databases.

Classroom experiment: participants and context

Forty third-year philology undergraduates (10 male and 30 female) voluntarily participated in the study. The experiment was conducted as a regular classroom activity during the Professional Speech Culture course, in which all participants were enrolled. The assignments and educational activities were finished on schedule and in accordance with the course learning objectives. All student work samples were anonymized before being scored and analyzed, and participation was entirely voluntary.

Within the same course environment, the cohort was divided into two groups: a control group ($n = 20$) and an experimental group ($n = 20$). Both groups were evaluated at pre-test and post-test. The control group adhered to the standard curriculum, while the experimental group engaged in the same foundational coursework, augmented by additional structured training in the conventions of scientific discourse. Both groups took the same tests at two different times: once at the start of the lesson (pre-test) and once at the end (post-test).

At pre-test, each student produced two work samples on a course-relevant academic topic:

(1) a short written scientific text in an abstract-like format, and

(2) a brief oral academic mini-report on the same (or a closely related) topic.

To make sure the grading was fair for everyone, the oral mini-report was audio-recorded.

Using a regular word processor, students wrote the abstract. A smartphone's voice recorder captured their spoken report. They sent both the text and audio files together in an email. To keep the grading consistent, all audio files were saved.

Between pre-test and post-test, the control group continued with routine course activities. A different set of students went through special lessons aimed at key parts of science communication: logical organization, precision of formulation, terminology use, argumentation, academic style, and responsible referencing. These sessions included hands-on practice along with instructor comments. After getting feedback, students went back to edit their written drafts. They also practiced speaking the material out loud, working on being clear and using an appropriate academic tone.

The experimental group's standard Professional Speech Culture curriculum included an additional module. This module focused on discourse and aimed to clarify scientific discourse conventions. These conventions were intended to be applicable to both written and oral forms of communication. The intervention did not introduce any new topics. The study looked at how students organize, build, and support academic ideas, and how well they maintain a proper academic tone when moving from writing to speaking.

Data analysis

Quantitative analysis was conducted to investigate group performance at baseline and post-instruction. For each criterion in the rubric and overall rubric scores, descriptive statistics (means and standard deviations) were calculated for both pre- and post-test measures. Three types of group differences were examined: baseline equivalence (pre-test only), end-of-cycle performance (post-test only), and gain scores ($\Delta = \text{post} - \text{pre}$). Between-group differences were assessed using Welch's t-tests. To examine change within each group, pre- and post-test scores

for each group were compared across criterion-level ratings and overall rubric scores. When gain scores lacked variance (i.e., all students improved equally across a criterion), results were presented descriptively along with appropriate significance tests. Effect sizes for gain differences were estimated using Hedges' *g*. Statistical significance was interpreted using conventional thresholds ($p < .05$).

The instruction followed a steady order: first analyzing the model, then practicing with guidance, next creating on your own, and finally getting feedback and making improvements. At the beginning, students were given the analytic rubric and its six criteria – terminology accuracy, logical organization, clarity and precision, argumentation, academic register, and intertextuality or referencing. This rubric was used both to assess their work and to help them learn better. To help with writing and practicing, students used simple tools that matched the rubric. These included a checklist for common problems and fixes, a quick outline for writing an abstract, and a list of phrases to connect ideas smoothly. In class, students looked at good and not-so-good examples of abstracts and mini-reports. They figured out what makes them strong or weak by checking things like using clear words instead of unclear ones, having a clear structure instead of missing one, making backed-up claims instead of unsupported ones, using proper language instead of casual talk, and giving proper credit instead of leaving it out. After that, specific rewriting tasks were done at the sentence and paragraph levels to enhance accuracy, flow, word choice, and the strength of arguments.

For the written part students did a two-step process to write their work. They wrote a draft then they got feedback based on a list of standards and after that they wrote a second draft. The feedback they got was specific. It mentioned to them exactly what they needed to work on to make their writing better.

For the speaking part students made a plan, for what they wanted to say. This plan included what they wanted to talk about, what they wanted to achieve, the points they wanted to make examples to support, what they were saying and a conclusion to sum it all up. Then they practiced their presentation making sure it was organized clear and used the right words and tone before they recorded it and turned it in. Written texts and audio files were submitted by email under anonymized identifiers, and recordings were retained to ensure consistent scoring.

At post-test, both groups completed parallel written and oral tasks comparable in complexity to the pre-test tasks.

Work samples (written texts and oral recordings) were rated on a 5-point scale for each criterion. To strengthen reliability, a subset of work samples was scored independently by two raters (teaching staff); disagreements were resolved through discussion to refine descriptor interpretation. The rubric criteria and performance descriptors are presented in Table 1.

Table 1 – Analytic Rubric Criteria and Performance Descriptors for Assessing Students' Written Abstracts and Oral Mini-Reports (5-point scale)

Criterion	1 (Very low)	2 (Low)	3 (Satisfactory)	4 (Good)	5 (Excellent)
1. Terminology accuracy and appropriateness	Frequent misuse of terms; meanings distorted	Several wrong/unclear terms; inconsistent usage	Mostly correct terms; occasional imprecision	Accurate and consistent terminology	Precise, consistent, context-appropriate terminology throughout
2. Logical organization and coherence	No clear structure; ideas disconnected	Weak structure; limited linking between ideas	Basic structure present; some logical gaps	Clear structure; mostly smooth progression	Strong structure; fully coherent, well-signposted reasoning
3. Clarity and precision of formulation	Vague wording; ambiguous statements	Often unclear; overly general or repetitive	Generally clear; some vague formulations remain	Clear, concise; minor issues only	Highly clear and precise; formulations are concise and unambiguous
4. Argumentation quality	Claims without support; no justification	Minimal support; reasoning is weak	Some support; reasoning is partially developed	Well-supported claims; reasoning is mostly convincing	Strong, well-justified arguments; evidence/examples used appropriately
5. Academic style markers (register control)	Colloquial tone; subjective/expressive language dominates	Mixed register; frequent non-academic phrasing	Mostly academic tone; occasional informal wording	Consistent academic register; appropriate objectivity	Fully academic style; controlled, objective, discipline-appropriate language
6. Intertextuality and referencing behavior	No attribution where needed; unclear borrowing	Rare/incorrect attribution; weak paraphrase	Basic attribution/paraphrase; some inaccuracies	Correct attribution; responsible paraphrase mostly consistent	Accurate, responsible attribution and paraphrase; sources integrated appropriately

Each student's written work and oral mini-report were graded using six criteria on a scale of 1 to 5 (total score range: 6–30). Higher scores indicate a stronger command of scientific discourse conventions and a higher level of professional speech culture in an academic setting.

A number of criteria are outlined in scholarly works for distinguishing between different types of discourse. These criteria include the form in which information is presented, the intended audience, the number of participants, the domain of human activity, the nature of communicative needs, the types of relationships between participants, and the mode of information delivery. The contrast between spoken and written modes is a crucial component in the classification of discourse.

The simultaneous occurrence of speaking, hearing, and comprehending is one characteristic that sets spoken discourse apart [9, p. 22]. Face-to-face contact between the speaker and the listener in a common time and location is another characteristic of spoken discourse; the use of first- and second-person pronouns indicates that both parties are involved in a particular context or circumstance. Along with using gestures and other nonverbal communication, it also expresses the feelings and ideas of the people involved [10, p. 22]. With the act of writing occurring in a different setting, at a different time, and in a different location than the reader's engagement and interpretation of the content, written discourse, as opposed to spoken discourse, conveys information through the relationship between the author, the reader, and the written text [11, p. 191].

It's also critical to note that multimodality – the simultaneous use of spoken and written forms – is a prevalent feature of modern communication. This makes it possible to identify a hybrid type that combines elements of written and spoken discourse.

The difference between person-centered (personal) and status-centered (institutional) discourse is an essential criterion for classification, as all discourse emerges from the social context in which it is created and is influenced by the communication traditions of a specific linguistic culture [12, p. 10]. Personal speech, which can be broadly divided into two categories – everyday and existential – includes conversations between intimate friends or family members. Conversely, the definition of institutional discourse is “a conventional, culturally determined, and norm-governed form of speech interaction between individuals who assume specific status roles within a structured social system designed to fulfill particular societal functions” [13, p. 46]. Institutional discourse encompasses a variety of types, such as political, diplomatic, educational, legal, military, scientific, religious, administrative, sports, mass media, medical, business, advertising, and theatrical discourse.

In this study we concentrated on scientific discourse, as it defines the fundamental components of scientific communication, which in turn aids philology students in their professional pursuits.

Within the broader system of discourse types, scientific discourse holds a distinct position, characterized by unique categorical features that set it apart. Every scientific work is an extension, elucidation, or critique of preexisting concepts while engaging in discourse with other scholars, according to researchers who have studied scientific writing. Within the broader framework of specialized and general scientific communication, a scientific text is inherently linked to other scientific publications, forming a microtext [14, p. 72].

Scientific discourse represents a structured approach to speech activity in the realm of science, where content takes precedence over form, serving as the primary and dominant factor in communication. Its key expressive characteristics include generalization, precision, logical coherence, and impersonality. The author's creative autonomy is constrained by established conventions, requiring clarity in referencing external sources. The intertextual tools employed in scientific literature are strictly regulated, with explicit markers such as quotations, footnotes, references, and source attributions ensuring transparency and academic integrity [12, p. 11].

Since language serves as the main medium for disseminating scientific knowledge, science and language are inextricably intertwined as ways of understanding the world. As a result, no scientific idea or theory can exist or be completely understood outside of its linguistic context. The method by which information is produced is essentially formed by scientific discourse, which articulates new knowledge inside a text while also supporting it with logical argumentation and related reasoning. The connection between scientific discourse and scientific style – a specific register of communication characterized by objectivity, clarity, and precision is a crucial component. Various written formats, such as research articles, dissertations, monographs, abstracts, reviews, and summaries, as well as oral formats, such as lectures, conference presentations, and reports, are examples of how scientific discourse appears from a genre perspective.

Numerous studies assess scientific discourse as either educational-pedagogical, solely scientific, or a combination of the two. D. R. Drozdova highlights that academic discourse is a wide category, encompassing subtypes like scientific, pedagogical, didactic, and educational discourse, with the teacher's goals determining how these subtypes are combined. L. V. Kulikova describes academic discourse as a structured mode of communication that integrates both linguistic and non-linguistic components. It also accounts for the status-role dynamics among key participants, such as students in higher education and scholars as researchers and/or educators, while incorporating a specialized set of symbols relevant to the profession [15, p. 298].

I. E. Shpenyuk offers a comprehensive definition of scientific and academic discourse, describing it as «a process and outcome of communication in higher education aimed at transmitting professional knowledge, setting the foundation for understanding reality, and preparing highly qualified specialists». Additionally, it is a distinctive form of communication in which the speaker intentionally influences the listener's cognitive framework to enhance their core professional knowledge and mental abilities [16, p. 135].

Results and Discussion

As professionals who are actively engaged in research, philologist-teachers are required to present the results of their scholarly investigations in forms such as scientific articles, conference presentations, and academic discussions. Scientific discourse serves as the primary medium for communicating these findings, characterized by its semantic density, adherence to linguistic norms, and specialized language aimed at rationally explaining empirical data.

Moreover, scientific discourse embodies the culmination of the research process, reflecting the philologist-teachers' ability to construct coherent arguments, share ideas, and draw conclusions that contribute to their field. By mastering scientific discourse, philologist-teachers demonstrate their capacity to effectively convey complex ideas, influence the cognitive sphere of their audience, and advance the collective knowledge of their discipline. Therefore, scientific discourse is not only a vital aspect of their professional speech culture but also a fundamental tool for fulfilling their academic and professional responsibilities.

Scientific discourse is characterized by two primary traits: communicative and cognitive. The cognitive component is exemplified by reasoning, which is a structured sequence of speech and thought processes aimed at addressing a meaningful question. Cognitive discourse leads to various analytical actions, such as classification, prediction, explaining facts based on hypotheses, and confirming or disproving these hypotheses. The subject-oriented nature of scientific discourse, primarily expressed through internal and external debates as a form of speech interaction, clearly reflects its communicative aspect. Internal dialogue entails the author analyzing their own reasoning and findings critically while taking into account different interpretations. Conversely, external communication is a means of intellectual influence in which the sender aims to change the recipient's knowledge, transform their scientific viewpoints, and preserve the values of scholarly debate. Some of the discourse parameters that form the component matrix of scientific discourse are as follows:

- Subjective: The people or organizations listening to the scientific discussion.
- Ontological: Discourse objects' various forms and modes of existence.
- Subject-related: The information pertaining to the knowledge items.

– Logical-methodological: The structures and techniques, such as justification techniques and explanation types, that are employed in speech to accomplish scientific-cognitive objectives.

– Linguistic-pragmatic: The organization, techniques, expressive instruments, communication scenarios, and stylistic elements of speech that are employed in scientific communication.

– Problematic: Determining and articulating the issue and its goals.

– Level-based: The differentiation between meta-discourse and subject-related discourse.

– Teleological: The process of generating new knowledge, applying preexisting knowledge to novel fields of study and real-world problems, and providing information and assessment in the framework of scientific communication [17, p. 18]. Overall, scientific discourse is a form of communication where a person not only presents knowledge but also builds and tests reasoning and influences others through evidence-based, logically organized, academically styled speech.

Research and academic-science activities are supported by the unique scientific style of scientific discourse, which is essential for fostering communication within the scientific community. The stylistic identity of this style is greatly influenced by the frequency of use of particular linguistic elements that are present at different levels. The following are essential components of the scientific discourse style: words that have a functional-stylistic connection to scientific terminology; morphological patterns commonly found in scientific writing; frequent syntactic patterns in literature pertaining to science; neutral linguistic units that are utilized throughout all styles, which are known as inter-stylistic components; Units that are stylistically neutral and mostly utilized in scientific discourse. The scientific style is shaped by extralinguistic and stylistic elements in addition to linguistic ones. These include scientific issues and specialist subject matter; conceptualization, abstraction, and generalization of knowledge; clarity of structure and logic; and accuracy, objectivity, and reliance on evidence when drawing conclusions. The scientific style is shaped by extralinguistic and stylistic elements in addition to linguistic ones. These include scientific issues and specialist subject matter; conceptualization, abstraction, and generalization of knowledge; clarity of structure and logic; and accuracy, objectivity, and reliance on evidence when drawing conclusions, density of facts and clarity of speech; statements' completeness and neutral tone; alignment between the reader's and the author's conceptual framework; statements' nominative nature, with a focus on classification and definition; semantic depth and active analytical participation; a communication-focused approach that supports practical goals; coherence and textual integrity are essential characteristics of scientific communication [18, p. 25].

Scientific discourse is realized in two modes – written (e.g., abstracts, articles, reports) and oral (e.g., presentations, seminars, academic talks) – each shaped by its own communicative conditions and linguistic conventions.

Effective scientific texts do more than accurately depict external realities; they also project the author's stance on the topics at hand and persuade expert readers of the significance and value of the research presented [19, p. 110].

Written scientific discourse is based on the content of scientific texts, which are strongly related to their situational setting. The fundamental components of a particular scientific paper are shaped by this context in accordance with the communicative-pragmatic and cognitive objectives of the author with respect to the reader. Therefore, a scientific statement presents a reasonably comprehensive body of scientific knowledge and is the result of a scholar's cognitive-discursive work. It is achieved by combining general linguistic components with unique stylistic methods, and it is methodically structured in accordance with the author's conceptual framework [20, p. 135].

A key component of scientific discourse is oral communication, thus the capacity to convey the same information vocally is as crucial. People can make sure they successfully communicate their scientific findings in a variety of formats by combining their writing and spoken communication skills, which promotes a more thorough and flexible approach to professional communication. Professional scientific communication conducted orally maintains topic alignment with written scientific literature while bringing scientific speech closer to conversational discourse.

The development of speech culture and communicative competence in future philologist-teachers refers to the creation and application of a structured system aimed at delivering educational services that meet the quality standards expected by potential employers. This approach ensures the planning, attainment, and continuous improvement of both the quality of the educational process and its outcomes [9, p. 230]. For students studying philology, grasping scientific discourse is a crucial skill in the context of contemporary education. Students gain vital skills that are essential to the successful development of their professional culture through the process of writing and presenting a scientific report in front of an audience.

The theoretical analysis presented above demonstrates that scientific discourse is not only a functional style but also a communicative-cognitive mechanism that shapes clarity, precision, logical argumentation, register control, and intertextuality – core qualities that constitute professional speech culture in academic and pedagogical contexts. However, an important methodological question follows from these findings: do these discourse qualities develop spontaneously through general coursework, or do they require explicit, structured instruction to become stable professional skills?

To answer this question the study added a classroom project to the talk about ideas. This project was part of the Professional Speech Culture class. The study looked at how students use skills like using the right words organizing their thoughts being precise making good arguments using the right language, for school and giving credit to others. The study wanted to see if teaching these skills on purpose would really help students do better when they write and talk about things. Therefore, the Results and discussion section proceeds from conceptual generalizations to experimental verification through a pre-test/post-test comparison of control and experimental groups.

The next section presents the pre-test/post-test comparison results and discusses how scientific discourse shapes the professional speech culture of future philologist-teachers. We also compared gain scores (Δ) for each criterion because post-test means by themselves do not indicate how much each group improved. This method directly examines whether the experimental condition outperformed regular instruction in terms of long-term progress. Table 2 consolidates the key descriptive information – pre-test, post-test, and gain values – into a single integrated format aligned with the analytic rubric criteria.

Table 2 – Pre-test and Post-test Descriptive Statistics and Gain Scores (Δ) by Criterion: Control vs. Experimental Groups

Criterion	Control Pre M (SD)	Control Post M (SD)	Δ Control	Experimental Pre M (SD)	Experimental Post M (SD)	Δ	Between-group p (Δ)
Terminology accuracy and appropriateness	2.70 (1.13)	3.05 (0.89)	+0.35	2.80 (1.06)	3.75 (0.97)	+0.95	< .01
Logical organization and coherence	2.80 (1.06)	3.25 (1.02)	+0.45	2.70 (1.13)	3.65 (1.04)	+0.95	< .01
Clarity and precision of formulation	2.65 (0.93)	2.90 (0.85)	+0.25	2.55 (0.94)	3.55 (0.94)	+1.00	< .001

Criterion	Control Pre M (SD)	Control Post M (SD)	Δ Control	Experimental Pre M (SD)	Experimental Post M (SD)	Δ	Between-group p (A)
Argumentation quality	2.55 (0.94)	3.15 (0.93)	+0.60	2.80 (0.95)	3.75 (0.85)	+0.95	< .01
Academic style markers (register control)	2.65 (1.09)	3.00 (0.79)	+0.35	2.70 (0.98)	3.70 (0.98)	+1.00	< .001
Intertextuality and referencing behavior	2.70 (0.98)	2.70 (1.08)	+0.00	2.50 (1.00)	3.50 (1.00)	+1.00	< .001

Table 2 shows us the picture of how things changed across the six criteria. The control group got a little better with changes ranging from no change all to a small improvement of +0.60. On the hand the experimental group did a lot better and made more consistent progress with changes ranging from +0.95 to +1.00 across all the criteria. One thing that really stands out is that the control group did not get better at referencing and connecting to other texts with no change at all. The experimental group however got a lot better at this with an improvement of +1.00. The experimental group and the control group had different results especially when it comes to the experimental group and the control groups performance, in referencing and intertextuality. This difference is conceptually important, because intertextuality and responsible attribution are hallmark features of scientific discourse and often require explicit instruction rather than emerging automatically from general speaking and writing practice.

In addition to criterion-level results, a total rubric score (sum across six criteria; range 6–30) provides a compact indicator of overall scientific discourse performance. As shown in Table 3, the experimental group achieved a larger increase in the total rubric score (sum of six criteria, 6–30 range) from pre-test to post-test than the control group, indicating broader overall improvement in scientific discourse performance.

Table 3 – Total score table (sum of 6 criteria, range 6–30)

Criterion	Control Pre M (SD)	Control Post M (SD)	Δ Control M (SD)	Experi- mental Pre M (SD)	Experi- mental Post M (SD)	Δ Experi- mental M (SD)	Be- tween- group p (Δ)
Total score (C1–C6 sum)	16.05 (5.48)	18.05 (5.21)	+2.00 (0.65)	16.05 (5.41)	21.90 (5.15)	+5.85 (0.49)	< .001

Table 3 shows that both groups started at the same overall level at pre-test (equal mean total scores), but the experimental group achieved a markedly higher post-test total and a substantially larger mean gain. This total-score pattern aligns with the criterion-level findings: discourse-focused instruction appears to accelerate development not only in one isolated skill, but across multiple interrelated aspects of scientific discourse that together constitute professional speech culture in academic communication.

Conclusion

The development of a professional speech culture is an essential component of a philologist-teachers' academic and professional training, and scientific discourse plays a crucial role in shaping this skill. As future researchers, educators, and linguistic experts, philology students must master the norms, structure, and communicative strategies of scientific discourse to effectively engage in academic discussions, present research findings, and contribute to the advancement of their field.

This study has demonstrated both theoretically and empirically that scientific discourse, characterized by precision, logical structuring, and adherence to linguistic and communicative norms, fosters the intellectual and communicative competencies necessary for professional speech culture. The classroom experiment confirmed that explicit, discourse-focused instruction leads to greater and more consistent improvement in students' academic performance than routine course practice alone. In particular, the experimental group showed stronger gains in terminology use, clarity and precision, argumentation, academic register control, and referencing/intertextuality, indicating that these core elements of scientific discourse benefit from targeted teaching, guided practice, and feedback-supported revision.

Furthermore, scientific discourse serves as a medium for cognitive development, allowing students to engage in critical thinking, argumentation, and knowledge synthesis. The integration of both oral and written scientific communication in instruction strengthens students' ability to transfer discourse conventions across formats, which is essential for professional work in research and pedagogy.

In conclusion, scientific discourse is an indispensable element in the formation of a philologist-teachers' professional speech culture. Its mastery enables philologist-teachers to navigate the academic and professional landscape with confidence, ensuring that their contributions to linguistic research, education, and literary analysis are both meaningful and impactful. At the same time, the findings should be interpreted with consideration of the study context. Future research may expand the sample, extend the instructional period, and examine the sustainability of gains across different academic tasks and genres.

References

- 1 **Ксенофонтова, А. Н.** Речевая культура – основа речевой деятельности школьников. – Оренбург. 1999. – 48 с.
- 2 **Лихачев, Б. Т.** Педагогика. – М. : Юрайт, 2001. – 523 с.
- 3 **Сыздыкова, Р.** Тілдік норма және оның қалыптануы (кодификациясы). – Алматы : Ел-шежіре, 2014. – 292 б.
- 4 **Phogat, P., Rab, S., Wan, M.** Science communication in the digital age: trends, gaps, and interdisciplinary opportunities // *Information Services and Use*. – 2025. – Vol. 0, Is. 0. – <https://doi.org/10.1177/18758789251342896>.
- 5 **Marshall, D., Case, J. M.** Discourse in the learning of physics: the design of an introductory physics curriculum // *African Journal of Research in MST Education*. – 2010. – Vol. 14, No. 2. – P. 15–27. – <https://doi.org/10.1080/10288457.2010.10740679>.
- 6 **Krajcik, J. S., Sutherland, L. M.** Supporting students in developing literacy in science // *Science*. – 2010. – Vol. 328, No. 5977. – P. 456–459. – <https://doi.org/10.1126/science.1182593>.
- 7 **Карасик, В. И.** О категориях дискурса // Тверской лингвистический меридиан: сборник статей. – Тверь : Изд-во ТвГУ, 2006. – С. 57–68.
- 8 **Chala, A., Demchenko, N., Panchenko, V., Bakhmat, L., Krekhno, T.** Forming speech and communicative competency of future philologists // *Revista Românească pentru Educație Multidimensională*. – 2021. – Vol. 13, № 3. – P. 225–245.
- 9 **Цымбал, А. Ю.** Интонационно-стилистические и коммуникативно-прагматические характеристики устных презентаций: дис. ... канд. филол. наук. – Иваново, 2015. – 220 с.
- 10 **Кутузов, А. Б.** Модель функционирования терминологического сленгизма в дискурсе сетевых форумов: дис. ... канд. филол. наук. – Тюмень, 2006. – 170 с.
- 11 **Кипкаева, В. С.** Уровни восприятия и понимания письменного дискурса // *Проблемы управления*. – 2008. – № 1. – С. 190–194.

12 **Карасик, В. И.** О типах дискурса // Языковая личность: институциональный и персональный дискурс: сб. науч. тр. – Волгоград : Перемена, 2000. – С. 5–20.

13 **Бурмакина, Н. Г.** Академический дискурс в теории институциональных дискурсов // Язык. Культура. Общество. – 2010. – Вып. 2. – С. 45–50.

14 **Гальперин, И. Р.** Текст как объект лингвистического исследования. – М. : Наука, 1981. – 138 с.

15 **Куликова, Л. В.** Коммуникативный стиль в межкультурной парадигме. – Красноярск : Изд-во КГПУ, 2006. – 392 с.

16 **Шпенюк, И. Е.** Научно-академический дискурс как институциональный тип дискурса // Известия Гомельского государственного университета. Серия «Гуманитарные науки». – 2016. – № 4. – С. 132–137.

17 **Кротков, Е. А., Зуев, К. А.** Проблема типов научного дискурса // Гуманитарные науки. – 2012. – № 4. – С. 16–26.

18 **Ракитина С. В.** Когнитивно-дискурсивное пространство научного текста : дис. ... д-ра филол. наук. – Волгоград, 2007. – 542 с.

19 **Crosthwaite, P., Cheung, L., Jiang, F.** Writing with attitude: stance expression in learner and professional dentistry research reports // English for Specific Purposes. – 2017. – Vol. 46. – P. 107–123.

20 **Мальчевская, Т. Н.** Научный текст как объект исследования при разработке стилистических проблем теории речевой коммуникации // Чтение, перевод, устная речь. – М. : 1977. – С. 3–12.

References

1 **Ksenofontova, A. N.** Rechevaia kul'tura –osnova rechevoi deiatel'nosti shkol'nikov [Speech culture is the foundation of schoolchildren's speech activity] [Text]. – Orenburg : 1999. – 48 p.

2 **Likhachev, B. T.** Pedagogika [Pedagogy] [Text]. – Moscow : Yurayt, 2001. – 523 p.

3 **Syzdykova, R.** Tildik norma zhane onyn qalyptanuy (kodifikatsiyasy) [Linguistic norm and its formation (codification)] [Text]. – Almaty : El-shezhire, 2014. – 292 p.

4 **Phogat, P., Rab, S., Wan, M.** Science communication in the digital age: trends, gaps, and interdisciplinary opportunities // Information Services and Use. – 2025. – Vol. 0, Is. 0. – <https://doi.org/10.1177/18758789251342896>.

5 **Marshall, D., Case, J. M.** Discourse in the learning of physics: the design of an introductory physics curriculum // African Journal of Research in MST

Education. –2010. –Vol. 14, No. 2. – P. 15–27. – <https://doi.org/10.1080/10288457.2010.10740679>.

6 **Krajcik, J. S., Sutherland, L. M.** Supporting students in developing literacy in science // Science. –2010. –Vol. 328, No. 5977. –P. 456–459. – <https://doi.org/10.1126/science.1182593>.

7 **Karasik, V. I.** O kategoriiakh diskursa [On the categories of discourse] [Text] // Tverskoi lingvisticheskii meridian: sbornik statei. –Tver : Izd-vo TvGU, 2006. –P. 57–68.

8 **Chala, A., Demchenko, N., Panchenko, V., Bakhmat, L., Krekhno, T.** Forming speech and communicative competency of future philologists // Revista Românească pentru Educație Multidimensională. –2021. –Vol. 13, No. 3. –P. 225–245.

9 **Tsybal, A. Iu.** Intonatsionno-stilisticheskie i kommunikativno-pragmaticheskie kharakteristiki ustnykh prezentatsii: dis. ... kand. filol. nauk [Intonational-stylistic and communicative-pragmatic characteristics of oral presentations: dissertation for the degree of Candidate of Philological Sciences] [Text]. –Ivanovo, 2015. –220 p.

10 **Kutuzov, A. B.** Model' funktsionirovaniia terminologicheskogo slengizma v diskurse setevykh forumov: dis. ... kand. filol. nauk [Model of the functioning of a terminological slangism in the discourse of online forums: dissertation for the degree of Candidate of Philological Sciences] [Text]. –Tiumen', 2006. –170 p.

11 **Kipkaeva, V. S.** Urovni vospriiatiia i ponimaniia pis'mennogo diskursa [Levels of perception and understanding of written discourse] [Text] // Problemy upravleniia. –2008. –No. 1. – P. 190–194.

12 **Karasik, V. I.** O tipakh diskursa [On the types of discourse] [Text] // Iazykovaia lichnost': institutsional'nyi i personal'nyi diskurs: sb. nauch. – Volgograd: Peremena, 2000. –P. 5–20.

13 **Burmakina, N. G.** Akademicheskii diskurs v teorii institutsional'nykh diskursov [Academic discourse in the theory of institutional discourses] [Text] // Iazyk. Kul'tura. Obshchestvo. –2010. –Vyp. 2. –P. 45–50.

14 **Gal'perin, I. R.** Tekst kak ob'ekt lingvisticheskogo issledovaniia [Text as an object of linguistic research] [Text]. –Moscow : Nauka, 1981. –138 p.

15 **Kulikova, L. V.** Kommunikativnyi stil' v mezhkul'turnoi paradigme [Communicative style in the intercultural paradigm] [Text]. –Krasnoarsk : Izd-vo KGPU, 2006. –392 p.

16 **Shpeniuk, I. E.** Nauchno-akademicheskii diskurs kak institutsional'nyi tip diskursa [Scientific-academic discourse as an institutional type of discourse] [Text] // Izvestiia Gomel'skogo gosudarstvennogo universiteta. Seriia «Gumanitarnye nauki». –2016. – No. 4. –P. 132–137.

17 **Krotkov, E. A., Zuev, K. A.** Problema tipov nauchnogo diskursa [The problem of types of scientific discourse] [Text]// Gumanitarnye nauki. – 2012. –No. 4. –P. 16–26.

18 **Rakitina, S. V.** Kognitivno-diskursivnoe prostranstvo nauchnogo teksta: dis. ... d-ra filol. nauk [Cognitive-discursive space of the scientific text: dissertation for the degree of Doctor of Philological Sciences] [Text]. –Volgograd, 2007. –542 p.

19 **Crosthwaite, P., Cheung, L., Jiang, F.** Writing with attitude: stance expression in learner and professional dentistry research reports // English for Specific Purposes. –2017. –Vol. 46. – P. 107–123.

20 **Mal'chevskaya, T. N.** Nauchnyi tekst kak ob'ekt issledovaniya pri razrabotke stilisticheskikh problem teorii rechevoi kommunikatsii [Scientific text as an object of study in developing stylistic issues in the theory of speech communication] [Text] // Chtenie, perevod, ustnaya rech'. – Moscow, 1977. – P. 3–12.

Received 30.01.26.

Received in revised form 26.05.26.

Accepted for publication 03.08.26.

**Г. Қ. Мейірбекова¹, Ж. Н. Сүлейменова²,*

Г. Қ. Жылқыбай³, А. Қ. Мейірбеков⁴

^{1,3}Қожа Ахмет Ясауи атындағы Халықаралық қазақ-түрік университеті,
Қазақстан Республикасы, Түркістан қ.;

²Қазақ ұлттық қыздар педагогикалық университеті,
Қазақстан Республикасы, Алматы қ.;

⁴Халықаралық туризм және меймандостық университеті,
Қазақстан Республикасы, Түркістан қ.

30.01.26 ж. баспаға түсті.

26.05.26 ж. түзетулерімен түсті.

03.08.26 ж. басып шығаруға қабылданды.

ҒЫЛЫМИ ДИСКУРСҒЫ ОҚЫТУДЫҢ БОЛАШАҚ ФИЛОЛОГ-ОҚЫТУШЫЛАРДЫҢ СӨЙЛЕУ МӘДЕНИЕТІНЕ ӘСЕРІ

Бұл мақалада болашақ филолог-мұғалімдердің кәсіби сөйлеу мәдениетін қалыптастыруға ғылыми дискурстың әсерін және оның маңызды коммуникациялық дағдыларды дамытатын мамандандырылған, семантикалық тұрғыдан бай тіл ретінде қарастырады. Зерттеу мақсаты кәсіби сөйлеу мәдениетін

жеңілдететін ауызша және жазбаша ғылыми дискурстың негізгі сипаттамаларын ашу және студенттерге академиялық сөйлеу және жазу дағдыларын жетілдірудегі осы дискурс конвенцияларын оқытудың тиімділігін эмпирикалық түрде зерттеу болды. Зерттеу әдіснамасы ғылыми дискурстың теориялық, сипаттамалық және салыстырмалы талдауы, сондай-ақ "Кәсіби сөйлеу мәдениеті" курсына бағытталған және эксперименттік топпен тестке дейінгі/тестілеуден кейінгі эксперименттік жобалау болды, барлығы 40 студент: бақылау тобында 20 және эксперименттік топта 20 студент. Студенттер екі топта да оқыту алдында және кейін аңдапта ретінде жазбаша дискурс бойынша және қысқаша ауызша есеп ретінде ауызша дискурс бойынша тапсырмалар орындады. Студенттердің жұмысы алты критерий бойынша аналитикалық рубрика арқылы бағаланды: терминология, ұйымдастыру, анықтық/дәлдік, дәлелдеу, академиялық тізім, сілтеме/интермәтінділік. Нәтижелер дискурс бойынша оқыту студенттердің дамуына әдеттегі оқытуға қарағанда, әсіресе анықтық/дәлдік, академиялық тізім, сілтеме/мәтінаралық байланыс тұрғысынан көбірек және тұрақты әсер ететінін көрсетті. Жалпы алғанда, студенттердің ауызша және жазбаша ғылыми дискурсты меңгеруі оларға кәсіби қарым-қатынаста маңызды болып табылатын қарым-қатынаста анықтыққа, дәлдікке және дәлелдеуге қол жеткізуге көмектеседі және болашақ филолог мұғалімдер үшін академиялық дайындықты жақсарту бойынша нұсқаулықтар береді.

Кілтті сөздер: кәсіби сөйлеу мәдениеті, ғылыми дискурс, академиялық дискурс, болашақ филолог- мұғалімдер, ғылыми коммуникация.

*Г. К. Мейірбекова¹, Ж. Н. Сулейменова²,

Г. К. Жылкыбай³, А. Қ. Мейірбеков⁴

^{1,3}Международный казахско-турецкий университет имени Ходжи Ахмеда Ясави, Республика Казахстан, г. Туркестан;

²Казахский национальный женский педагогический университет, Республика Казахстан, г. Алматы;

⁴Международный университет туризма и гостеприимства, Республика Казахстан, г. Туркестан.

30.01.26 ж. баспаға түсті.

26.05.26 ж. түзетулерімен түсті.

03.08.26 ж. басып шығаруға қабылданды.

ВЛИЯНИЕ ОБУЧЕНИЯ НАУЧНОМУ ДИСКУРСУ НА РЕЧЕВУЮ КУЛЬТУРУ БУДУЩИХ ФИЛОЛОГОВ-ПРЕПОДАВАТЕЛЕЙ

В данной статье рассматривается влияние научного дискурса на формирование профессиональной речевой культуры будущих филологов-преподавателей, анализируется его роль как специализированного, семантически богатого языка, способствующего развитию необходимых коммуникативных навыков. Цель исследования заключалась в выявлении основных характеристик устного и письменного научного дискурса, способствующих формированию профессиональной речевой культуры, и эмпирическом исследовании эффективности обучения студентов этим дискурсивным конвенциям в улучшении навыков академической устной и письменной речи. Методология исследования включала теоретический, описательный и сравнительный анализ научного дискурса, а также экспериментальную схему с предварительным и последующим тестированием с контрольной и экспериментальной группой в курсе «Профессиональная речевая культура», состоящую из 40 студентов: 20 в контрольной группе и 20 в экспериментальной группе. Студенты должны были подготовить письменный дискурсивный текст в виде аннотации и устный мини-отчет до и после обучения в обеих группах. Результаты работы студентов оценивались с использованием аналитической рубрики по шести критериям: терминология, организация, ясность/точность, аргументация, академический регистр, ссылки/интертекстуальность. Результаты показали, что обучение навыкам устной и письменной научной речи оказывает большее и более устойчивое влияние на улучшение успеваемости студентов, чем обычное обучение, особенно в таких аспектах, как ясность/точность, академический стиль, ссылки/интертекстуальность. В целом, освоение студентами устной и письменной научной речи помогает им достичь ясности, точности и аргументации в общении, что крайне важно в профессиональной коммуникации, и предоставляет рекомендации по улучшению академической подготовки будущих филологов.

Ключевые слова: профессиональная речевая культура, научный дискурс, академический дискурс, будущие филологи-учители, научная коммуникация.

Теруге 03.08.2026 ж. жіберілді. Басуға 14.09.2026 ж. қол қойылды.

Электронды баспа

6,45 МБ

Шартты баспа табағы 49,9

Компьютерде беттеген З. Ж. Шокубаева

Корректорлар: А. Р. Омарова, Д. А. Қожас

Тапсырыс № 4597

Сдано в набор 03.08.2026 г. Подписано в печать 14.09.2026 г.

Электронное издание

6,45 МБ, Усл.п.л. 49,9.

Компьютерная верстка З. Ж. Шокубаева

Корректоры: А. Р. Омарова, Д. А. Қожас

Заказ № 4597

«Toraighyrov University» баспасынан басылып шығарылған

Торайғыров университеті

140008, Павлодар қ., Ломов к., 64, 133 каб.

«Toraighyrov University» баспасы

Торайғыров университеті

140008, Павлодар қ., Ломов к., 64, 133 каб.

8 (7182) 67-36-69

e-mail: kereku@tou.edu.kz

www.pedagogic-vestnik.tou.edu.kz