COMPARATIVE ANALYSIS OF GENRES IN UZBEK AND ENGLISH SCIENTIFIC DISCOURSE

Zebuniso Abduganiyeva
PhD student, UZSWLU
https://orcid.org/0009-0002-0530-4743
za.abduganiyeva@uzswlu.uz
+998 99 254 51 22

Abstract. *This study presents a comparative analysis of genres in Uzbek and English scientific discourse, examining how both languages organize and structure academic communication through distinct yet overlapping conventions. Drawing on established frameworks from genre analysis, particularly Swales' move analysis and Hyland's metadiscourse theory, alongside detailed examination of Uzbek scientific texts, this research reveals both universal principles of scientific writing and culturally-specific variations. The analysis demonstrates that while both languages pursue similar epistemic goals through comparable genre systems, their realization strategies reflect distinct rhetorical traditions, with English favoring promotional rhetoric and explicit positioning within disciplinary conversations, while Uzbek maintains systematic organization, comprehensive proof requirements, and consistent formality. These findings contribute to understanding cross-linguistic patterns in academic discourse and offer practical implications for translation, pedagogy, and international academic collaboration.*

Keywords: *scientific discourse, genre, monographs, research articles, textbook, terminology, CARS model, metadiscourse, move analysis*

Introduction

The development of specialized registers for scientific communication represents a fundamental achievement in the functional evolution of any language, reflecting broader societal commitments to systematic knowledge production and transmission. Scientific discourse emerges through complex interactions between cognitive demands of disciplinary thinking, social practices of research communities, and linguistic resources available within particular languages. This evolutionary process produces distinctive genre systems—socially recognized ways of using language that serve specific communicative purposes within academic communities.

The comparative study of scientific discourse across languages provides crucial insights into how different cultures construct and transmit knowledge. As Swales (1990) established in his groundbreaking work on genre analysis, academic discourse communities develop specialized conventions that serve their particular communicative purposes. This comparative analysis examines how Uzbek and English scientific discourse communities

have evolved distinct yet functionally equivalent genre systems, each reflecting unique cultural values while pursuing universal scientific objectives.

The significance of this comparison extends beyond theoretical linguistics. In an era of increasing academic globalization, understanding how different linguistic traditions organize scientific knowledge becomes essential for effective international collaboration. While English has emerged as the dominant lingua franca of science, with approximately 80% of indexed journal articles now published in English (Hyland, 2015), national languages like Uzbek continue to play vital roles in local knowledge production and dissemination. This dual reality creates a compelling need to understand how scientific genres function across these linguistic boundaries.

Furthermore, the comparison between English and Uzbek scientific discourse offers particularly rich analytical terrain. English scientific writing, extensively studied by scholars such as Swales (1990, 2004), Hyland (2005, 2018), Bazerman (1988), and Myers (1990), has evolved over centuries through complex interactions between scientific revolution, institutional development, and rhetorical tradition. Uzbek scientific discourse, meanwhile, has undergone rapid modernization and standardization, developing comprehensive genre systems that both parallel and diverge from international models. This juxtaposition illuminates fundamental questions about universality and cultural specificity in academic communication.

The theoretical foundation for this analysis draws primarily from English for Specific Purposes (ESP) genre theory, which conceptualizes genres as socially recognized ways of using language for particular purposes (Swales, 1990). According to Swales' definition, a genre comprises a class of communicative events sharing common communicative purposes recognized by expert members of the parent discourse community. These purposes shape the schematic structure of the discourse and influence content and style choices. This framework proves particularly valuable for cross-linguistic comparison, as it focuses on functional rather than purely formal characteristics.

Building on Swales' foundation, Bhatia (1993, 2004) expanded genre analysis to include professional and academic contexts across cultures, arguing that while genres maintain "generic integrity" through core characteristics, they also display considerable variation across cultural contexts. This perspective becomes crucial when examining how Uzbek and English scientific communities adapt similar genres to their specific cultural and linguistic environments. The concept of genre chains and genre sets, developed by Bazerman (1994) and elaborated by Swales (2004), further enriches our understanding of how individual genres function within larger systems of academic communication.

The Architecture of Academic Genres

The genre systems of both Uzbek and English scientific discourse display remarkable structural parallels while manifesting distinct cultural orientations. Both languages organize academic communication through a hierarchy of genres serving different communicative purposes within the research and education cycle. However, the internal organization and

boundaries of these genres reflect different conceptualizations of knowledge construction and transmission.

In English academic discourse, genres form what Swales (2004) terms "genre networks," with fluid boundaries and increasing hybridization. The traditional research article, for instance, now appears in multiple variants: empirical studies following the IMRAD structure (Introduction, Methods, Results, and Discussion), theoretical papers, review articles, brief communications, and perspective pieces. Each variant serves specific communicative purposes while maintaining family resemblances. This proliferation reflects what Berkenkotter and Huckin (1995) identify as genre dynamism—the evolution of genres in response to changing social and technological contexts.

Uzbek scientific discourse, conversely, maintains more clearly delineated genre boundaries. The classification system identifies distinct categories: monografiyalar (monographs), ilmiy maqolalar (scientific articles), darsliklar va qo'llanmalar (textbooks and manuals), ilmiy-ommabop materials (popular science), and various subsidiary genres like tezislar (conference articles), ma'ruzalar (reports), and ensiklopedik maqolalar (encyclopedic articles). Each genre operates according to established conventions with less cross-genre borrowing than observed in contemporary English academic writing.

Research Genres: Monographs and Articles

The monograph genre illuminates fundamental differences in how both academic cultures conceptualize comprehensive scholarly treatment. In English academic tradition, particularly following the model established by university presses, monographs represent what Thompson (2005) calls "long-form arguments"—extended explorations of specific topics that advance original theoretical contributions. The typical English monograph structure, as analyzed by Swales and Feak (2012), includes extensive literature review positioning the work within ongoing scholarly conversations, development of theoretical frameworks, presentation of evidence or analysis, and synthesis leading to new insights.

Uzbek monographs (monografiyalar) demonstrate parallel yet distinct characteristics. These works pursue what the literature describes as "muammolarning biror muhim tomonini o'rganish" (studying important aspects of unresolved problems), but with stronger emphasis on systematic and exhaustive treatment. Where English monographs increasingly adopt narrative strategies and authorial presence—what Hyland (2001) terms "proximity positioning"—Uzbek monographs maintain consistent impersonality and formal register throughout. The requirement for "isbotlash" (proving) manifests in extensive exemplification, with each claim requiring multiple forms of validation through facts, laws, formulas, and empirical materials.

Research Articles: Structural Convergence and Rhetorical Divergence

The research article genre provides perhaps the clearest example of structural convergence alongside rhetorical divergence. Swales' (1990) CARS model (Create a Research Space) has become paradigmatic for understanding English research article introductions. This model identifies three essential moves: establishing a territory (claiming

centrality, making topic generalizations, reviewing previous research), establishing a niche (counter-claiming, indicating gaps, question-raising, continuing tradition), and occupying the niche (outlining purposes, announcing research, indicating structure, announcing findings).

English research articles have evolved considerably since Swales' initial formulation. As Hyland (2000) demonstrates, contemporary English scientific writing increasingly employs promotional strategies, with authors explicitly highlighting novelty, significance, and potential impact. The abstract has transformed from summary to what Berkenkotter and Huckin (1995) term "a promissory note," emphasizing what readers will gain from the article. This promotional rhetoric extends throughout the article, with discussion sections increasingly devoted to "selling" the research significance.

Uzbek research articles (ilmiy maqolalar) follow a tripartite structure of kirish (introduction), asosiy qism (main body), and xulosa (conclusion), which superficially parallels English conventions. However, the rhetorical realization differs significantly. Uzbek introductions employ formulaic expressions for establishing research territory, particularly phrases like "kam o'rganilganligi" (insufficiently studied), "e'tibordan chetda qolayotganligi" (remaining outside attention), or "ilmiy jihatdan etarli o'rganilmayotganligi" (not being adequately studied scientifically). These formulations serve similar functions to Swales' niche establishment but through more standardized linguistic means.

The main body (asosiy qism) in Uzbek articles prioritizes comprehensive coverage and systematic progression. Where English articles increasingly adopt what Myers (1990) calls "narrative of science"—presenting research as unfolding discovery—Uzbek articles maintain what might be termed "demonstration of science," systematically presenting evidence and proof. This difference reflects deeper epistemological orientations: English scientific discourse increasingly acknowledges research as socially constructed knowledge-making, while Uzbek discourse maintains stronger objectivist stance, presenting findings as discovered truths requiring thorough validation.

Educational Genres: Textbooks and Pedagogical Materials

The comparison of educational genres reveals how pedagogical traditions shape knowledge presentation. English textbooks, as analyzed by Myers (1992) and Hyland (2002), have evolved from authoritative knowledge transmission to what might be called "guided knowledge construction." Contemporary English textbooks employ multiple voices—authoritative exposition, conversational explanation, and interrogative engagement—creating what Lemke (1990) terms "heteroglossic" discourse. Features include direct address to readers, rhetorical questions, preview and review sections, and extensive scaffolding through examples and exercises.

The influence of constructivist pedagogy appears throughout English educational materials. As Biber et al. (2002) demonstrate in their corpus analysis, university textbooks increasingly incorporate narrative elements, case studies, and problem-based learning

scenarios. The traditional expository mode gives way to what Martin and Rose (2008) identify as multiple genre complexes within single textbooks: explanations, reports, procedures, and arguments interwoven to facilitate different learning styles.

Uzbek textbooks (darsliklar) and manuals (qo'llanmalar) maintain more consistent expository mode throughout. The progression from school to university textbooks involves primarily quantitative changes—increasing terminological density and complexity—rather than qualitative shifts in discourse mode. University-level texts begin with clear statements of the discipline's object and methods, as exemplified in the provided corpus: "Gidravlika suyuqliklarning muvozanat va harakat qonunlarini... o'rganish bilan shug'ullanadigan fandir" (Hydraulics is a science that studies the laws of equilibrium and motion of liquids).

This systematic approach extends to organizational structure. While English textbooks increasingly adopt flexible, modular organization allowing multiple pathways through material, Uzbek textbooks maintain linear progression from fundamental concepts to complex applications. Each section builds explicitly on previous material, with extensive cross-referencing ensuring comprehensive understanding. This reflects what might be termed a "building-block" epistemology, where knowledge accumulates systematically rather than being constructed through exploration.

Popular Science and Public Communication

The popular science genre reveals striking differences in how both cultures conceptualize public communication of science. English popular science writing, as studied by Myers (2003) and Moirand (2003), has evolved into a distinct genre characterized by narrative strategies, personal engagement, and entertainment value. Following what Fairclough (1995) terms "conversationalization of public discourse," English popular science freely incorporates journalistic techniques: attention-grabbing leads, human interest angles, dramatic tension, and colloquial language.

Calsamiglia and Van Dijk (2004) identify key features of English popular science discourse: reformulation of specialized knowledge through metaphor and analogy, narrative structuring of scientific discovery, personalization through scientist profiles, and contextualization through everyday applications. The boundary between education and entertainment becomes increasingly permeable, with popular science books adopting literary techniques and science journalism embracing storytelling.

Uzbek popular science (ilmiy-ommabop) maintains clearer generic boundaries. While serving similar popularization functions, these texts preserve formal register and systematic organization even when addressing general audiences. The Uzbek approach might be characterized as "simplified exposition" rather than "transformed narrative." Technical terms receive careful explanation through glossing and definition rather than metaphorical reformulation. The authorial voice remains authoritative and distant rather than conversational and engaging.

This difference reflects contrasting conceptualizations of the expert-public relationship. English popular science increasingly adopts what Luzón (2013) terms "democratization of

expertise," with scientists presented as accessible figures and readers positioned as potential participants in scientific dialogue. Uzbek popular science maintains clearer hierarchy, with experts transmitting established knowledge to recipients. The educational mission takes precedence over entertainment value, reflecting different cultural valuations of academic authority.

Conclusion

This comprehensive comparative analysis of Uzbek and English scientific discourse reveals both universal principles and culturally-specific variations in academic communication. While both languages have developed sophisticated genre systems serving similar functional purposes their realization strategies reflect distinct rhetorical traditions and cultural values.

English scientific discourse has evolved toward what might be characterized as competitive dialogue, with writers actively positioning research within ongoing conversations, employing promotional rhetoric, and engaging readers as evaluative participants. The influence of market forces on academic production has intensified these trends, creating discourse that simultaneously informs and persuades. The acceptance of narrative techniques, personal voice, and strategic informality reflects broader cultural shifts toward democratization of expertise and acknowledgment of knowledge as socially constructed.

Uzbek scientific discourse maintains what might be termed demonstrative exposition, prioritizing systematic organization, comprehensive proof, and objective presentation. The emphasis on logical consistency, exhaustive evidence, and formal register reflects cultural values of thoroughness, hierarchy, and respect for established knowledge. While interfacing with international scholarship, Uzbek academic discourse preserves distinct rhetorical traditions that serve local academic communities effectively.

These differences extend beyond surface features to fundamental epistemological orientations. English academic discourse increasingly acknowledges the rhetorical nature of scientific communication, embracing persuasion as legitimate scholarly practice. Uzbek academic discourse maintains stronger separation between objective knowledge and rhetorical presentation, viewing comprehensiveness and logical development as primary virtues.

Reference list

1)   Bazerman, C. (1994). Systems of genres and the enactment of social intentions. In A. Freedman & P. Medway (Eds.), Genre and the new rhetoric (pp. 79-101). Taylor & Francis.
2)   Bhatia, V. K. (1993). Analysing genre: Language use in professional settings. Longman.
3)   Bhatia, V. K. (2004). Worlds of written discourse: A genre-based view. Continuum.

4)   Biber, D., & Gray, B. (2016). Grammatical complexity in academic English: Linguistic change in writing. Cambridge University Press.

5)   Connor, U. (2011). Intercultural rhetoric in the writing classroom. University of Michigan Press.

6)   Fairclough, N. (1995). Media discourse. Edward Arnold.

7)   Hunston, S., & Thompson, G. (Eds.). (2000). Evaluation in text: Authorial stance and the construction of discourse. Oxford University Press.

8)   Hyland, K. (2000). Disciplinary discourses: Social interactions in academic writing. Longman.

9)   Hyland, K. (2001). Humble servants of the discipline? Self-mention in research articles. English for Specific Purposes, 20(3), 207-226.

10)   Hyland, K. (2002). Teaching and researching writing. Pearson Education.

11)   Hyland, K. (2004). Disciplinary discourses: Social interactions in academic writing. University of Michigan Press.

12)   Hyland, K. (2005). Metadiscourse: Exploring interaction in writing. Continuum.

13)   Hyland, K. (2017). Metadiscourse: What is it and where is it going? Journal of Pragmatics, 113, 16-29.

14)   Hyland, K. (2018). Metadiscourse: Exploring interaction in writing (2nd ed.). Bloomsbury.

15)   Kaplan, R. B. (1966). Cultural thought patterns in inter-cultural education. Language Learning, 16(1-2), 1-20.

16)   Martin, J. R., & Rose, D. (2008). Genre relations: Mapping culture. Equinox.

17)   Myers, G. (1992). Textbooks and the sociology of scientific knowledge. English for Specific Purposes, 11(1), 3-17.

18)   Myers, G. (2003). Discourse studies of scientific popularization: Questioning the boundaries. Discourse Studies, 5(2), 265-279.

19)   Samraj, B. (2002). Introductions in research articles: Variations across disciplines. English for Specific Purposes, 21(1), 1-17.

20)   Seoane, E. (2013). On the conventionalisation and loss of pragmatic function of the passive in Late Modern English scientific discourse. Journal of Historical Pragmatics, 14(1), 70-99.

21)   Swales, J. M. (1990). Genre analysis: English in academic and research settings. Cambridge University Press.

22)   Swales, J. M. (2004). Research genres: Explorations and applications. Cambridge University Press.

23)   Swales, J. M., & Feak, C. B. (2012). Academic writing for graduate students: Essential tasks and skills (3rd ed.). University of Michigan Press.

24)   Thompson, G. (2001). Interaction in academic writing: Learning to argue with the reader. Applied Linguistics, 22(1), 58-78.

25)   Thompson, P. (2005). Points of focus and position: Intertextual reference in PhD theses. Journal of English for Academic Purposes, 4(4), 307-323.

26)   Yang, R., & Allison, D. (2003). Research articles in applied linguistics: Moving from results to conclusions. English for Specific Purposes, 22(4), 365-385.