

SOCIOLINGUISTIC PRACTICES DURING AIR-RAID ALERTS: EVALUATING SHORT PROTOCOLS AND SAFETY MICRO- TEXTS

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Abstract

This study investigates the sociolinguistic practices that emerge among students and academic staff at a Ukrainian scientific and technical university during air-raid alert conditions, focusing on the linguistic properties of safety micro-texts and short communication protocols deployed under conditions of acute institutional disruption. Drawing on corpus-based discourse analysis and ethnographic classroom observation, the research documents systematic shifts in register, lexical density, and pragmatic function that characterise alert-period institutional communication. The analysis reveals that crisis conditions engender a distinctive communicative economy, marked by imperative constructions, telegraphic syntax, and heightened reliance on paralinguistic and visual semiotic resources. An additional investigative strand addresses students' adoption of AI-assisted language tools for autonomous study during alert periods and intervals of electricity disruption, yielding evidence of measurable gains in lexical retention and written communicative competence. The findings advance theoretical understandings of language resilience and adaptive discourse in civilian academic communities navigating the prolonged pressures of armed conflict.

Key words: sociolinguistics, air-raid alert, safety micro-texts, crisis discourse, AI-assisted language learning.

Анотація

Це дослідження присвячене вивченню соціолінгвістичних практик, що виникають серед студентів та науково-педагогічного персоналу українського науково-технічного університету в умовах повітряних тривог, зосереджуючись на лінгвістичних характеристиках захисних мікротекстів і коротких протоколів спілкування, що застосовуються в умовах гострих інституційних порушень. Спираючись на корпусний дискурс-аналіз та етнографічне спостереження в навчальних аудиторіях, дослідження фіксує системні зміни в реєстрі, лексичній цільності та прагматичній функції, що характеризують інституційну комунікацію під час тривоги. Аналіз виявляє, що кризові умови породжують самобутню комунікативну економію, позначену наказовими конструкціями, телеграфним синтаксисом і підвищеною залежністю від паралінгвістичних та візуальних семіотичних ресурсів. Додатковий напрям дослідження стосується використання студентами інструментів на основі штучного інтелекту для самостійного навчання під час тривоги та перебоїв електропостачання, що засвідчує вимірювані покращення у запам'ятовуванні лексики та письмовій комунікативній компетенції. Результати дослідження поглиблюють теоретичне розуміння мовної стійкості та адаптивного дискурсу в цивільних академічних спільнотах, що зазнають тривалого тиску збройного конфлікту.

Ключові слова: соціолінгвістика, повітряна тривога, захисні мікротексти, кризовий дискурс, навчання мов із підтримкою штучного інтелекту.

The prolonged armed conflict that has encompassed Ukraine since February 2022 has placed domestic higher education institutions in unprecedented operational conditions. Scientific and technical universities, faced with the simultaneous tasks of maintaining academic continuity, ensuring physical safety, and preserving the morale of scholarly communities, have been compelled to establish rapid, efficient, and linguistically precise regimes of crisis communication. Air-raid alerts – which in many Ukrainian cities recur several times a day and can last for hours – disrupt the conventional temporal and spatial architecture of university life: lectures are interrupted mid-delivery, laboratory sessions are suspended, and students and faculty are forced to relocate to designated shelters, often without access to electricity, stable internet connections, or standard educational infrastructure.

The linguistic practices emerging in this context – institutional safety announcements, micro-interactions within shelters, communication via mobile devices, and condensed written protocols displayed on university premises – form a distinctive and under-researched field of crisis sociolinguistics. Indeed, while sociolinguistics has traditionally studied the variability of language practices in relatively stable social contexts, we are presented with a radically unstable environment – one in which the human, pedagogical, and discursive are constantly reconfigured under the pressure of external and unpredictable circumstances. This scholarly inquiry explores these practices through the lived experience of participants in the educational

process at a Ukrainian scientific and technical university. The analysis focuses, firstly, on the lexical and pragmatic architecture of safety micro-texts and, secondly, on the communicative adaptations observed in pedagogical discourse during alerts. A further aspect of particular significance involves students' engagement with artificial intelligence tools during forced interruptions in formal learning and the implications of such engagement for linguistic development.

The sociolinguistics of crisis and emergency communication is attracting increasing scholarly attention, particularly following large-scale humanitarian and geopolitical upheavals. Blommaert and Rampton (2016), developing the conceptual framework of the sociolinguistics of mobility and superdiversity, argued that communication in disrupted, non-standard conditions foregrounds the indexical and pragmatic dimensions of language use – those which routine institutional discourse typically obscures. Coupland (2016), in turn, highlighted how stylistic and register variation intensifies under conditions of heightened social tension, when speakers and institutions turn to conventionalised, formulaic resources as communicative economy becomes a priority.

In the more specific field of institutional crisis communication, research indexed in Scopus and Web of Science – including the work of Sellnow and Seeger (2021) on effective crisis communication and the interdisciplinary output of Roitman (2022) on emergency language regimes – has repeatedly emphasised the paramount role of brevity, clarity, and directive speech acts in high-stakes safety contexts. More recent work by Godwin-Jones (2022, 2023), published in the journal *Language Learning & Technology* (WoS-indexed), has documented how disruptions to the educational process – specifically those caused by the COVID-19 pandemic – accelerated student engagement with AI-assisted language learning tools, yielding documented positive effects on lexical range and productive competence. These studies form the theoretical foundation upon which this research is built, adapting the existing conceptual apparatus to the unique wartime conditions in Ukraine.

Research

The safety micro-texts present in the university environment under study exhibit a set of systematic linguistic features that warrant close analytical scrutiny. At the lexical level, these texts demonstrate a marked preference for monosemic, high-frequency units and a near-total avoidance of technical or niche disciplinary terminology. Syntactically, they are characterised by pure imperative constructions ("Leave the classroom", "Evacuate immediately"), elliptical structures, and the systematic omission of discourse cohesive devices. From a pragmatic perspective, the illocutionary force of these texts is uniformly directive: they function as commands, prohibitions, or behavioural guidelines in time-critical circumstances. The paralinguistic dimensions of these micro-texts – their visual design, font size, placement, and the use of internationally recognised symbols and colour coding – form an integral semiotic layer that compensates for the lexical and syntactic compression of the verbal content.

The discourse of lecturers and administrators during alerts demonstrates a parallel set of adaptations. Classroom interactions, which prior to the alert were characterised by elaborate explanations, Q&A exchanges, and metacognitive commentary, rapidly contract into sequences dominated by directive and phatic speech acts. The phatic dimension deserves particular attention: conversation between lecturers and students in the shelter, as well as amongst students themselves, frequently shifts towards informal, solidarity-oriented registers intended to maintain affective cohesion and mitigate the anxiety generated by prolonged uncertainty. This oscillation between directive and solidarity-oriented registers is a defining feature of academic discourse during alerts.

However, linguistic behaviour is not limited solely to minimisation and compression: in situations of more prolonged sheltering, a reactivation of cognitively demanding registers is observed – informal discussions regarding academic problems, group task deliberations, and the exchange of language-learning advice. The shelter space, though deprived of standard technical equipment, paradoxically becomes a site for vibrant interpersonal interaction that formalised instruction does not always provide. This suggests that the crisis context not only disrupts but also, in certain dimensions, reconfigures the communicative space of the university.

Perhaps the most significant finding of this study concerns the patterns of language learning practiced by students during alerts and power outages. Deprived of access to traditional learning materials, library resources, and synchronous instruction, a significant proportion of university students turn to AI tools – specifically conversational AI platforms, AI-powered vocabulary applications, and automated writing feedback systems –

as primary means of maintaining continuity in their language training. Among the identified patterns, the use of AI for autonomous vocabulary work (synonym matching, context checking, consolidation through interactive exercises), for editing and refining personal written texts via automated feedback, and for simulating communicative interaction in the absence of a live speaking partner is particularly prominent.

Qualitative analysis of student reflective reports, supported by performance data collected before and after prolonged instructional breaks, indicates that such engagement correlates with statistically significant improvements in lexical acquisition, grammatical accuracy in writing, and self-assessed communicative confidence. These data suggest that conditions of institutional disruption can – paradoxically – catalyse a productive shift toward autonomous, AI-mediated language learning, with results that in several aspects complement and even exceed those achieved through traditional modes of instruction. This observation has profound implications for the professional practice of language educators in war and post-conflict contexts. The role of the educator, in conditions where formal classroom work is regularly and unpredictably suspended, inevitably extends to the design and recommendation of AI-supported autonomous learning pathways suitable for offline use, mobile devices, and limited connectivity.

Conclusion

The sociolinguistic landscape of a Ukrainian technical university under active conflict is marked by a series of communicative adaptations – within institutional safety discourse, pedagogical interaction, and students' autonomous language learning practices – which collectively attest to the resilience of language as a resource for coordination, solidarity, and intellectual engagement under extreme institutional pressure. Safety micro-texts and short protocols reveal a distinctive crisis register characterised by lexical simplicity, syntactic compression, and an unmarked directive illocutionary orientation.

Classroom and shelter discourse discloses a dynamic interplay between directive and solidarity-oriented registers, sensitive to the shifting affective and practical demands of alert conditions. Students' recourse to AI tools during interruptions in formal learning demonstrates not only adaptive ingenuity but also a quantifiable capacity for linguistic development outside the traditional educational framework. These results necessitate a rethinking of sociolinguistic theory to account for the communicative realities of prolonged armed conflict, as well as a renewed pedagogical commitment to the systematic, evidence-based integration of AI-assisted language learning into curricula designed for conditions of institutional instability. Further research should focus on longitudinal analysis of these practices, comparative coverage across different universities and disciplinary contexts, and the development of practical pedagogical recommendations for academic communities operating during or after armed conflict.

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