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DIDACTIC POTENTIAL AND LIMITATIONS OF GENERATIVE ARTIFICIAL INTELLIGENCE IN UNIVERSITY GERMAN LANGUAGE TEACHING: A COMPARISON OF GERMAN AS A FIRST AND SECOND/FOREIGN LANGUAGE

ДИДАКТИЧНИЙ ПОТЕНЦІАЛ І ОБМЕЖЕННЯ ГЕНЕРАТИВНОГО ШТУЧНОГО ІНТЕЛЕКТУ У ВИКЛАДАННІ НІМЕЦЬКОЇ МОВИ В УНІВЕРСИТЕТІ: ПОРІВНЯННЯ НІМЕЦЬКОЇ ЯК ПЕРШОЇ ТА ДРУГОЇ/ІНОЗЕМНОЇ МОВИ

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Ivan PAROVIAK



Ph.D. in Philology, Assistant, Department of Foreign Languages for Natural Sciences Faculties, Yuriy Fedkovych Chernivtsi National University, Chernivtsi, Ukraine.

✉ **E-mail:** *i.paroviak@chnu.edu.ua*
https://orcid.org/0000-0003-2377-7843

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ABSTRACT

Purpose. *The study aims to determine and systematize the didactic potential of generative artificial intelligence (GenAI) in university German language teaching and to compare its functions and limitations in teaching German as a first language and as a second/foreign language.*

Methodology. *The study employs qualitative didactic analysis and comparative analysis. The analytical material consists of self-developed, didactically modelled instructional scenarios representing typical university German language tasks. The examples cover grammar, vocabulary, writing, communication, stylistic revision, register differentiation, genre*

Мета. *Статтю присвячено визначенню та систематизації дидактичного потенціалу генеративного штучного інтелекту (GenAI) у викладанні німецької мови в університеті та порівнянню його функцій і обмежень у навчанні німецької як першої та другої/іноземної мови.*

Методологія. *Дослідження ґрунтується на якісному дидактичному та порівняльному аналізі. Матеріалом слугують самостійно розроблені дидактично змодельовані сценарії університетських мовних завдань, що охоплюють граматику, лексику, письмо, комунікацію, стилістичне редагування, диференціацію регістрів, жанрову*

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transformation, and critical analysis of AI-generated texts. No human participants or statistical procedures were involved.

Results. *The analysis demonstrates a functional asymmetry in the pedagogical use of GenAI. In second/foreign language teaching, GenAI primarily functions as linguistic scaffolding. It can provide contextualised grammar practice, lexical differentiation, corrective feedback, communicative simulation, and support for successive stages of writing. In first-language teaching, its dominant function shifts towards linguistic and metalinguistic reflection. GenAI can support academic writing, stylistic differentiation, register awareness, genre transformation, argumentation, and critical evaluation of alternative formulations and AI-generated texts. In both contexts, the pedagogical value of GenAI increases when learners evaluate, modify, and justify AI suggestions rather than merely reproduce generated content.*

Conclusions. *GenAI should not be treated as a uniform instructional technology whose functions remain identical across language-learning contexts. Its didactic value depends on the linguistic status of the target language and on the degree of learner agency built into the task. For second/foreign language instruction, GenAI is particularly valuable as a scaffold for language production and practice. For first-language instruction, it is more productive as an instrument of linguistic reflection, text development, and critical language awareness. Responsible implementation therefore requires teacher mediation, explicit task design, and activities that preserve the learner's role as the primary linguistic decision-maker.*

Keywords: *academic writing, AI literacy, learner autonomy, linguistic scaffolding, metalinguistic awareness, register awareness, task design.*

трансформацію та критичний аналіз текстів, згенерованих ШІ. Людські учасники та статистичні процедури не залучалися.

Результати. *Виявлено функціональну асиметрію дидактичного використання GenAI. У навчанні німецької як другої/іноземної мови GenAI передусім виконує функцію мовленнєвої опори: забезпечує контекстуалізоване граматичне тренування, лексичну диференціацію, моделювання речень, комунікативну симуляцію та поетапну підтримку письма. У навчанні німецької як першої мови його домінантна функція зміщується до мовної та метамовної рефлексії: академічного письма, стилістичної диференціації, усвідомлення регістру, жанрової трансформації, аргументації та критичного оцінювання альтернативних формулювань і текстів ШІ. В обох контекстах дидактична цінність GenAI зростає тоді, коли здобувачі освіти оцінюють, модифікують і обґрунтовують пропозиції ШІ, а не відтворюють їх.*

Висновки. *GenAI не слід розглядати як універсальну навчальну технологію з однаковою функцією в усіх мовно-освітніх контекстах. Його дидактична цінність залежить від мовного статусу здобувача, навчальної мети та рівня його агентності. Для німецької як другої/іноземної мови особливо продуктивною є функція мовленнєвої опори, тоді як для німецької як першої мови – інструмент мовної та метамовної рефлексії. Відповідальне використання потребує педагогічного посередництва, чіткої постановки завдань і збереження здобувача як основного суб'єкта мовного рішення.*

Key words: *академічне письмо, ШІ грамотність, автономія здобувача освіти, мовленнєва підтримка, метамовна обізнаність, усвідомлення регістру, проєктування завдань.*

INTRODUCTION

Generative artificial intelligence (GenAI) has rapidly entered educational contexts and created new possibilities for language teaching and learning. Systems capable of generating, transforming, correcting, and explaining language can now participate in activities traditionally performed by teachers, textbooks, reference works, or language-learning software. In university language education, these capabilities are particularly relevant because students can interact with GenAI through natural language, request explanations, compare formulations, simulate conversations, and revise texts through successive stages. The pedagogical contribution of GenAI is shaped by the way students engage with it within a particular learning activity. The same system may support learning effectively when it is used as part of a structured task that requires learners to

assess, modify, and justify AI-generated suggestions (Kasneci et al., 2023; Kohnke et al., 2023; Zou et al., 2023; Gulich & Chetveryk, 2025).

Recent scholarship has increasingly examined not only the quality of AI-generated language but also the learning processes that emerge when students work with such systems. This shift has brought greater attention to learner participation, writing processes, revision practices, autonomy, and critical AI literacy. In German as a foreign language, collaborative writing, text revision, and learner–AI interaction have received particular attention (Michel et al., 2025; Akan, 2025; Wendt et al., 2023; Damiazzi & Morf, 2025). From this perspective, GenAI can serve as a pedagogical assistant in university German instruction, provided that students retain responsibility for linguistic decisions and critically assess the system's output (Adams, 2025).

Research on German as a foreign language also highlights the potential of AI for adaptive linguistic support. AI systems can produce alternative formulations, explain linguistic features, and respond to learner input. Recent work * has demonstrated the relevance of AI-supported differentiation and personalisation in German as a foreign language through differentiated reading instruction (Tonenchuk, 2026). Other studies address vocabulary development, text comprehension, and writing support (Mykolaichuk & Babych, 2025; Schulz & Gunkel, 2025; Mikheeva, 2025). At the same time, the literature identifies significant limitations. AI-generated responses may contain inaccurate information or linguistically inappropriate formulations. Learners may accept suggestions without evaluation, outsource substantial parts of their writing, or become dependent on automated feedback. These risks make AI literacy, teacher mediation, and explicit task design central to responsible AI use (Münch-Manková et al., 2025).

These issues become particularly important when first-language and second/foreign-language education are distinguished. In second-/foreign-language instruction, learners normally require systematic support in grammatical accuracy, lexical range, sentence formation, communicative competence, and confidence in language production. In first-language instruction, university teaching may focus more strongly on academic writing, stylistic differentiation, genre competence, argumentation, textual coherence, register, precision, and conscious control of linguistic choices. This orientation is also reflected in current German-language discussion of AI-supported German teaching, where competence-oriented use models emphasise writing, reflection, and differentiated linguistic activity rather than unrestricted text generation (Fürstenberg & Müller, 2024). However, the comparison of GenAI's potential functions in first-language and second/foreign-language German teaching appears to remain insufficiently systematised.

The present study conceptualises GenAI not as a single-purpose technology but as a flexible didactic resource whose function depends on learners' linguistic status, instructional objectives, and degree of learner participation. Two broad orientations can be distinguished. The first is *linguistic scaffolding*, which includes grammar explanations, lexical suggestions, sentence modelling, communicative simulation, and staged feedback. The second is *metalinguistic and textual reflection*, which involves stylistic revision, register differentiation, genre transformation, argumentation, and critical analysis of AI-generated language. These orientations should not be treated as mutually exclusive categories. Rather, they form a continuum: advanced second-language learners may require substantial metalinguistic reflection, while first-language students may also benefit from AI-supported linguistic modelling. The research question is: How does the didactic function of generative artificial intelligence differ between university teaching of German as a first language and German as a second/foreign language?

METHODOLOGY

The study adopts a qualitative comparative-didactic approach. It does not measure the statistical effectiveness of GenAI through an intervention involving students. The analytical material consists of self-developed, didactically modelled examples of university-level German-language learning tasks. These examples represent situations in which a student interacts with a generative AI system and are not presented as empirical observations. They cover grammatical accuracy, lexical differentiation, communicative interaction, written production, text revision, stylistic development, register differentiation, genre transformation, and critical analysis of AI-generated language.

The examples were organised into two contexts: German as a first language (DaE), with emphasis on academic writing, stylistic differentiation, textual precision, register awareness, genre competence, argumentation, and metalinguistic reflection; and German as a second/foreign language (DaZ/DaF), with emphasis on grammatical development, vocabulary expansion, sentence formation, communicative practice, writing development, and controlled language production. The examples were constructed by identifying university-level learning objectives, translating them into AI-supported tasks, specifying the expected learner activity following AI support, and comparing the scenarios according to their pedagogical function. The central construction principle was that the learner should remain an active participant in the learning process.

Accordingly, the scenarios privilege sequences such as *learner production → AI support → learner evaluation → learner revision* or *justification* rather than complete text generation by the AI system.

The analysis was based on four criteria: the function of GenAI; the degree of learner agency; the type of linguistic activity; and the correspondence between AI support and the learning objective. The identified functions included linguistic scaffolding, language-production support, text development, metalinguistic reflection, and critical AI literacy. Learner agency was considered in terms of the extent to which students produced language independently, used AI-generated suggestions as support, evaluated those suggestions, and justified or revised the resulting text. Linguistic activities included grammatical, lexical, communicative, writing, stylistic, genre-related, argumentative, and metalinguistic activities.

No human participants were involved; therefore, a Participants subsection and statistical analysis are not applicable. The study does not measure changes in proficiency, motivation, achievement, or attitudes. The modelled examples cannot establish the effectiveness of particular AI tools under controlled conditions. Moreover, GenAI systems are dynamic and may produce different responses to identical prompts. The analysis is consequently intended to illustrate pedagogical principles rather than provide reproducible measures of AI-system performance.

RESULTS

– GenAI-supported grammar and vocabulary tasks

The following examples are didactically modelled rather than drawn from learner corpora. The first group concerns grammatical and lexical activities. A typical task begins with *"Wenn ich mehr Zeit habe, ich würde öfter Deutsch lernen."* Instead of requesting only a correction, the learner asks why *"hätte"* is required and then produces *"Wenn ich*

mehr Zeit hätte, würde ich öfter Deutsch lernen." The sequence combines identification, explanation, correction, and further practice.

Lexical differentiation can be organised similarly. From *"Das Studium ist gut",* GenAI can generate context-dependent alternatives such as "interessant," "anspruchsvoll," or *"effektiv organisiert."* The learner selects the appropriate expression and explains the semantic difference. This shifts vocabulary work towards contextual lexical selection (Lang et al., 2025; Mykolaichuk & Babych, 2025).

– **Writing support**

A modelled writing task begins with *"Viele Studenten benutzen soziale Medien jeden Tag. Das ist gut für die Kommunikation, aber es gibt auch Probleme. Die Studenten können nicht konzentrieren und sie verlieren viel Zeit."* Rather than requesting a complete correction, the learner asks the system to identify grammatical and lexical problems. The learner then produces *"Die Studenten können sich nicht konzentrieren und verlieren viel Zeit."* A subsequent prompt may request academic alternatives.

A second scenario begins with *"Online-Unterricht ist praktisch. Man kann von zu Hause lernen. Aber manchmal gibt es technische Probleme."* Here, GenAI is asked to pose questions for text expansion without generating the text itself. The learner incorporates the answers into the developing text. Thus, AI functions as support for the writing process rather than as a substitute for learner production (Michel et al., 2025; Akan, 2025; Mikheeva, 2025; Redmann, 2024).

– **Communicative and interactive tasks**

GenAI can simulate a conversational partner and provide opportunities for repeated target-language production. One modelled prompt asks the system to discuss *"Studieren und Arbeiten neben dem Studium,"* pose one question at a time, and postpone correction until after the learner's response. Another scenario simulates an employee of a university examination office and requires the learner to use a polite but natural register. Prompt design can regulate the number of questions, feedback timing, role, and linguistic level. Such activities correspond to current approaches to AI-supported language learning and university GFL practice (Adams, 2025).

– **Stylistic and genre-oriented tasks for German as a first language**

In first-language German instruction, the scenarios place greater emphasis on stylistic differentiation, academic writing, genre competence, and conscious linguistic choice. Consider *"Die Universität sollte mehr Sachen machen, damit die Studenten besser mit digitalen Medien umgehen können."* A possible academic reformulation is *"Die Universität sollte gezielte Maßnahmen entwickeln, um die digitalen Kompetenzen der Studierenden zu fördern."* Learners can analyse lexical precision, nominal choice, syntactic condensation, and register.

Genre differentiation can likewise be practised by transforming *"Die Universität führt ab dem nächsten Semester neue digitale Prüfungsformen ein"* into official, student-oriented, and academic versions. The task is to identify linguistic features appropriate to each genre. GenAI may also provide possible lines of argument without generating complete paragraphs, leaving students responsible for developing the argument (Redmann, 2024; Wendt et al., 2023).

– **AI-generated texts as objects of linguistic analysis**

AI output can itself become an object of linguistic analysis. Consider *"Die Digitalisierung ist ein sehr wichtiger und guter Bestandteil der modernen Universität. Sie bietet viele*

Vorteile und ist für alle Studenten sehr nützlich." Learners can identify repetition, vague expressions, generalisations, and insufficient specification, and then compare the text with a more precise version. The focus is therefore on evaluating lexical and syntactic choices rather than merely correcting errors. This task type supports critical engagement with AI-generated language (Ziaja, 2024).

– **Comparative results**

The comparison indicates a difference in the dominant instructional function assigned to GenAI. In German as a second/foreign language, the scenarios primarily involve linguistic scaffolding through grammatical explanation, lexical differentiation, sentence modelling, communicative simulation, and staged writing support. In German as a first language, they more often emphasise stylistic and metalinguistic reflection, including register, genre, academic formulation, argumentation, and critical evaluation.

The same AI function can therefore acquire different instructional meanings depending on the learning context. Across both contexts, the scenarios consistently position learners as evaluators and revisers of AI-generated material rather than passive recipients of generated output.

– **Detailed analysis of the modelled scenarios**

A closer comparison of the scenarios shows that their didactic value depends on the linguistic operation that remains with the learner after AI assistance. The modelled tasks follow a recurrent sequence: learner input, AI support, learner processing, and revised or newly produced language. The system may identify a problem, explain a rule, offer alternatives, ask questions, simulate an interaction, or provide a text for analysis. In each case, however, the learning function is determined by what the student must do with the generated material. If the interaction ends with a ready-made answer, the learner's linguistic contribution is limited. If the student has to select, reconstruct, compare, justify, or independently reformulate the material, the AI response becomes an intermediate stage of learning.

The grammar scenario demonstrates this principle particularly clearly. The initial sentence *"Wenn ich mehr Zeit habe, ich würde öfter Deutsch lernen"* can be corrected automatically, but the task becomes more productive when the learner asks GenAI to identify the grammatical problem and explain why *"hätte"* is required without supplying the final sentence. The learner then reconstructs *"Wenn ich mehr Zeit hätte, würde ich öfter Deutsch lernen"* and produces an analogous example. Thus, the scenario combines noticing, metalinguistic explanation, independent correction, and transfer. The same pattern can be applied to other university-level grammar topics, such as word order, modal verbs, passive constructions, or the use of prepositions. The relevant result is therefore not the correction itself but the redistribution of grammatical work between system and learner.

– **Vocabulary, writing, and communicative scenarios**

The vocabulary scenario demonstrates that GenAI can extend lexical work from word retrieval to contextual choice. From *"Das Studium ist gut,"* the system may propose *"interessant," "anspruchsvoll,"* or *"effektiv organisiert."* These expressions are not interchangeable: each highlights a different aspect of the study experience. The learner therefore has to identify the context in which a particular expression is semantically appropriate and explain the difference. This procedure makes lexical precision, register, and communicative intention explicit and corresponds to research emphasising AI-

supported vocabulary development and contextualised language practice (Lang et al., 2025; Mykolaichuk & Babych, 2025).

The writing scenarios produce a comparable shift from correction to process support. In *"Viele Studenten benutzen soziale Medien jeden Tag. Das ist gut für die Kommunikation, aber es gibt auch Probleme. Die Studenten können nicht konzentrieren und sie verlieren viel Zeit,"* the learner can ask the system to mark grammatical and lexical problems without rewriting the passage. The learner then identifies the missing reflexive pronoun and produces *"Die Studenten können sich nicht konzentrieren und verlieren viel Zeit."* In the second writing scenario, based on online teaching, GenAI is asked to formulate questions that stimulate expansion rather than generate the paragraph itself. The resulting interaction supports planning and development while preserving the student's authorship of the text. Such staged assistance is consistent with research on collaborative writing and revision in German as a foreign language (Michel et al., 2025; Akan, 2025; Redmann, 2024).

The communicative scenarios add an interactional dimension. When the system is instructed to discuss *"Studieren und Arbeiten neben dem Studium"*, ask one question at a time, and postpone correction until the learner has answered, prompt design regulates both the quantity of interaction and the timing of feedback. The examination-office scenario additionally introduces role and register: the learner must communicate politely and appropriately in an institutional context. The modelled result is a production–feedback–reformulation cycle rather than simple conversation. This makes GenAI potentially useful for repeated practice, while the need for authentic human interaction remains unchanged.

– **Stylistic and genre-oriented scenarios in first-language German**

The scenarios for German as a first language demonstrate a different dominant use of GenAI. The sentence *"Die Universität sollte mehr Sachen machen, damit die Studenten besser mit digitalen Medien umgehen können"* is understandable, but it contains lexical and stylistic choices that are weak for academic discourse. The alternative *"Die Universität sollte gezielte Maßnahmen entwickeln, um die digitalen Kompetenzen der Studierenden zu fördern"* provides a basis for analysis of lexical precision, nominal choice, syntactic condensation, and register. The learner can compare the versions, identify the changes, and explain which formulation is more suitable for a particular communicative situation.

Genre transformation makes the reflective function more explicit. The statement *"Die Universität führt ab dem nächsten Semester neue digitale Prüfungsformen ein"* can serve as a common semantic basis for an official announcement, a message addressed to students, and an academic formulation. The task is not simply to obtain three AI-generated texts but to determine how audience and genre influence vocabulary, syntax, explicitness, and degree of formality. GenAI can provide alternatives, but the learner remains responsible for identifying the relevant genre features and producing or revising the final version. This corresponds to process-oriented and genre-based approaches in AI-supported German writing (Redmann, 2024; Wendt et al., 2023).

The AI-generated-text scenario extends this principle further. The formulation *"Die Digitalisierung ist ein sehr wichtiger und guter Bestandteil der modernen Universität. Sie bietet viele Vorteile und ist für alle Studenten sehr nützlich"* can be presented as an object of linguistic analysis. Students can mark vague expressions, repetition, generalisations, and insufficient specification and then compare the passage with a more precise version. The central operation is therefore evaluation rather than correction. Such use is particularly relevant to critical AI literacy because fluent machine-

generated language may still be semantically imprecise or stylistically inappropriate (Warschauer et al., 2023; Mah et al., 2023; Ziaja, 2024).

– **Cross-scenario comparison of learner activity**

The comparison of the modelled scenarios reveals four recurring distributions of linguistic work. First, GenAI can diagnose a problem while the learner performs the correction. Second, it can generate alternatives while the learner selects and justifies one. Third, it can provide questions or prompts while the learner develops the text. Fourth, it can generate a complete text that the learner subsequently evaluates as a linguistic object. These configurations differ not in the availability of AI but in the amount and type of responsibility retained by the learner.

This distribution helps explain the functional asymmetry between German as a second/foreign language and German as a first language. In DaF/DaZ scenarios, GenAI most often operates as linguistic scaffolding: it explains grammar, expands lexical options, models sentence patterns, supports writing, and simulates communication. In DaE scenarios, the same generative capacity more often becomes a resource for linguistic and metalinguistic reflection: students compare registers, analyse genre, refine academic formulations, and evaluate machine-generated language. The distinction is functional rather than absolute. Advanced second-language learners may also need stylistic and metalinguistic tasks, while first-language students may benefit from targeted modelling.

A further result concerns prompt constraints. “Correct my text” delegates the diagnostic and corrective operation to AI, whereas “identify three problems but do not correct them” leaves the correction to the learner. Similarly, “write a paragraph about online learning” delegates textual production, while “ask me five questions that will help me develop my paragraph” preserves it. Prompt design therefore becomes part of didactic design. The decisive criterion is the distribution of linguistic work: the more clearly the task specifies what the learner must formulate, evaluate, explain, or defend independently, the more visible the educational contribution of the interaction becomes.

Overall, the scenarios support the conclusion that GenAI should be integrated into a learning sequence rather than treated as an independent source of finished answers. The most clearly agency-oriented configurations retain learner activity before, during, and after AI assistance. This finding also clarifies the role of teacher mediation: the teacher defines the learning objective, selects the appropriate level of assistance, establishes the limits of acceptable delegation, and provides criteria for evaluating generated language. The scenarios consequently illustrate pedagogical potential rather than measurable learning effectiveness; they show how tasks can be designed, not how much proficiency students would gain from them.

DISCUSSION

The results suggest that the didactic function of GenAI differs according to the linguistic context in which it is used. In German as a second/foreign language, GenAI is particularly relevant as a form of linguistic scaffolding It can support grammatical explanation, lexical selection, sentence construction, writing, and simulated communication. This process-oriented use corresponds to current research on collaborative writing and university GFL instruction (Michel et al., 2025; Akan, 2025; Adams, 2025).

In German as a first language, the emphasis shifts towards linguistic and metalinguistic reflection. The central issue is not necessarily the production of a grammatically acceptable sentence but the selection of an appropriate linguistic form for a particular

genre, register, audience, or communicative purpose. GenAI can therefore provide alternative formulations that serve as material for comparison and evaluation. This interpretation is consistent with competence-oriented approaches to AI-supported German teaching that emphasise writing, reflection, and differentiated linguistic activity (Fürstenberg & Müller, 2024; Günay & Baum, 2025).

– **The asymmetry between first- and second/foreign-language contexts**

The comparison indicates a functional asymmetry rather than a strict division between two learner types. In DaF/DaZ, the dominant sequence can be represented as *linguistic difficulty → AI scaffolding → learner production → evaluation → further production*. In DaE, it can more often be described as *linguistic choice → AI alternatives → comparison → evaluation → justification → revision*. The distinction therefore concerns the dominant pedagogical orientation, not a fixed developmental hierarchy.

This finding also suggests that linguistic status should be considered alongside proficiency, task type, and learning objective. A proficient second-language learner may benefit from stylistic and genre-oriented reflection, while a first-language learner may require linguistic modelling when working with an unfamiliar academic or specialised register. GenAI should consequently be selected according to the linguistic operation that the task is intended to develop.

– **Learner agency and the distribution of linguistic work**

The results underline the importance of maintaining learner responsibility for linguistic decisions. A distinction can be made between substitution, supplementation, and reflection. Substitution occurs when AI performs the central linguistic operation and the learner accepts the result. Supplementation occurs when AI provides limited assistance while the learner performs the main operation. Reflection occurs when AI output becomes an object of comparison, evaluation, justification, or revision.

This distinction is particularly relevant to writing. A prompt such as “Schreibe einen akademischen Text über soziale Medien” delegates the central writing operation to AI. By contrast, “Hilf mir, meinen eigenen Aufsatz über soziale Medien zu verbessern. Identifiziere drei unklare Stellen und gib Hinweise, ohne den Text neu zu schreiben” keeps the main linguistic work with the learner. Such process-oriented use is compatible with approaches that treat AI as support for writing rather than as a replacement for learner production (Redmann, 2024; Wendt et al., 2023).

– **Limitations and teacher mediation**

The pedagogical value of GenAI is constrained by the reliability and contextual appropriateness of its output. AI-generated language may be grammatically acceptable but semantically imprecise, pragmatically inappropriate, or unsuitable for a particular genre. This creates particular difficulties when learners lack the linguistic competence required to evaluate the output independently (Lang et al., 2025; Ziaja, 2024). Excessive reliance on automatic reformulation may also reduce opportunities for independent linguistic decision-making.

Teacher mediation therefore remains important. Teachers determine the learning objective, define the permitted degree of AI assistance, and establish criteria for evaluating generated language. Responsible implementation also requires attention to academic integrity, authorship, privacy, transparency, and assessment (Derakhshan & Alrabai, 2026; Münch-Manková et al., 2025).

– **Implications for teaching and assessment**

The findings have direct implications for task and assessment design. AI-supported activities should specify what the learner must independently formulate, evaluate, explain, or revise. Instead of unrestricted generation, teachers can use constrained prompts such as “identify the problem but do not correct it,” “offer two alternatives and explain their register,” or “ask questions that help me expand the paragraph.” Such constraints determine the distribution of linguistic work between the learner and the AI system.

Assessment should likewise distinguish between the final product and the learning process. Students can be asked to retain an initial version, document selected AI suggestions, and briefly explain which suggestions they accepted, modified, or rejected. This makes linguistic decision-making more visible and provides evidence of the learner's contribution. For DaF/DaZ, assessment can emphasise independent language production following targeted scaffolding; for DaE, it can additionally emphasise register, genre, precision, and stylistic justification.

The comparison also supports integrating AI literacy with language literacy. Learners need to evaluate not only whether an AI-generated formulation is fluent but also whether it is accurate, contextually appropriate, sufficiently precise, and suitable for the intended audience. In this sense, critical evaluation of AI output becomes part of language learning rather than a separate technical skill.

CONCLUSIONS

– **Limitations and research perspectives**

The study is limited by its qualitative and conceptual character. The examples are didactically modelled and are not derived from a controlled intervention or learner corpus. They therefore illustrate potential pedagogical functions and instructional conditions rather than demonstrate measurable learning effects. Future empirical research should compare learners of German as a first and second/foreign language and examine outcomes such as writing quality, grammatical development, lexical development, register awareness, learner autonomy, and AI literacy.

Overall, the findings support a differentiated, task-oriented approach to GenAI in university German teaching. For DaF/DaZ, greater emphasis can be placed on controlled scaffolding and guided production; for DaE, AI can more frequently serve as a resource for stylistic comparison, genre transformation, academic writing, and metalinguistic reflection. In both contexts, the learning objective should precede the choice of AI function, and the learner should remain the primary linguistic decision-maker.

CONFLICT OF INTEREST

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