



## Workplace-Oriented German Training for Engineers: A Needs-Based Practice Report from a Multinational Company

Irini Zourlantoni

STATIKS IKE, Greece

RADIN Planungsgesellschaft Tragwerke mbH, Germany

### Abstract

*Teaching German in a highly specialised civil engineering environment quickly showed that grammar and textbooks alone were not enough. The civil engineers needed to explain technical processes, discuss reports, solve problems, and communicate professionally between Germany and Greece. This required a more flexible and workplace-oriented approach to language teaching. This paper reflects on a longitudinal language training program developed and continuously adapted between 2022 and 2026 at STATIKS IKE in Thessaloniki, Greece and RADIN Planungsgesellschaft Tragwerke mbH in Lippstadt, Germany. Both companies operate within the same transnational engineering environment under shared management. The program originally began with nineteen participants and continues today with a core group of nine civil engineers. This development reflects both professional mobility within the company and the personal and professional development of the participants over time. The learners ranged from A1 to C2 levels and were organised into six individual level groups as well as three broader groups (A1–B1, B2–C1, and C2). The groups attended weekly ninety-minute lessons, mainly in person and, when necessary, online. One of the central pedagogical challenges throughout the program was the gap between receptive understanding and active communication. Many engineers were able to read and understand German technical documentation quite fluently but experienced difficulties when they had to explain the same content independently in speaking or writing. Addressing this gap required more than traditional communicative exercises. Over time, the program developed into a more dynamic and adaptive teaching process that continuously changed in response to the learners' professional realities, communication challenges, and workplace situations. The development of the program was therefore not linear, but shaped by ongoing reflection, experimentation, and adaptation. The training gradually combined task-based and needs-based approaches, authentic professional materials including reinforcement plans (Bewehrungspläne) and soil reports (Bodengutachten), case-based learning, intercultural reflection and, authentic professional and everyday communication in an increasingly AI-influenced workplace environment shaped by fast daily communication. The findings suggest that effective language training in technical contexts requires continuous adaptation, genuine engagement with the learners' professional environment, and a willingness on the part of the educator to learn alongside the discipline being taught.*

**Keywords:** *Languages for Specific Purposes (LSP), workplace-oriented language training, task-based learning, intercultural communication, adaptive language teaching, engineers*

### 1. Introduction

General German language instruction alone often does not prepare engineers sufficiently for the communication demands of a technical multinational workplace. That observation may sound obvious, yet many language programs for professional contexts still begin with general linguistic frameworks, as I initially did myself, before gradually introducing professional content. In practice, this often produces learners who can discuss grammar but struggle to lead a technical meeting or explain complex professional problems independently [1, 6]. The program described in this paper did not begin as a specialised engineering language course. Like many DaF programs, it initially followed more traditional general language teaching approaches and materials from established DaF publishers. Over time, however, the professional realities of the engineers increasingly shaped the direction of the training and gradually transformed it into a more workplace-oriented and adaptive form of language instruction, particularly at the B2–C1 levels, while the lower A1–B1 levels remained more strongly connected to general DaF instruction. STATIKS IKE in Thessaloniki, Greece, and RADIN Planungsgesellschaft Tragwerke mbH in Lippstadt, Germany, do not function as two separate companies in partnership, but as part of the same transnational engineering environment under shared management. The Greek engineers work on German projects, read German technical documentation, communicate with German



clients, and, for those who travel to Lippstadt, often work for extended periods in an entirely German-speaking professional environment. Their need for German is therefore immediate and directly connected to their daily professional responsibilities [2, 3, 27]. I began working with this cohort in September 2022 with a group of nineteen participants ranging from complete beginners at A1 to learners at C1 level. The reduction from nineteen to nine participants over four years reflected professional mobility, including career changes and relocation. Since September 2025, the program has also included two C2-level civil engineers, one of whom is a company director within the firm. The participants were divided into two broader level groups, A1–B2 and B2–C1, while the C2 participants attended lessons together with the advanced group. Each group met once a week for ninety minutes, almost always in person. This choice was deliberate, as many of the communicative tasks that proved most valuable in this context involved spontaneous technical explanations, simulated professional meetings, and forms of interaction that required participants to think and speak simultaneously [4, 5]. At the same time, remote teaching also became part of the program when necessary. In this particular context, online lessons proved to be similarly effective, mainly because the participants were already accustomed to close professional collaboration, regular communication, and highly interactive lesson formats. Workplace communication problems frequently became teaching material themselves. A site report that used unfamiliar terminology. An AI-generated translation that had caused a professional misunderstanding. Over time, the engineering workplace itself increasingly became part of the curriculum, which made the training both more demanding and, in many cases, more effective [5, 6, 11]. Several participants undertook external German courses alongside the in-company training, pursued formal language certifications, and completed immersive work placements at the Lippstadt office for two weeks to three months [6, 15].

## **2. Theoretical Background**

### ***2.1 Languages for Specific Purposes (LSP) and Needs Analysis***

The theoretical foundation of this program is situated within Languages for Specific Purposes (LSP), an approach based on the idea that language learning becomes more effective when it is closely connected to the real communication demands of a specific professional context [6, 10]. In structural engineering, communicative competence has a very practical meaning: the ability to read and critically assess a soil report, explain the implications of a foundation calculation to a non-specialist client, or lead a technical meeting in which questions of safety, responsibility, and project cost are discussed simultaneously [2, 3]. General linguistic competence is necessary for this, but on its own it is often not enough. Needs analysis became a central component of the program. One of the most important lessons this teaching experience revealed was that workplace needs cannot be analysed once at the beginning of a course and then treated as fixed. Professional communication practices and workplace priorities change continuously. The communicative challenges engineers faced in 2022 were not identical to those they encountered in 2025, particularly given the growing presence of generative AI in workplace communication during that period [5, 12]. For this reason, needs analysis became part of the weekly rhythm of instruction. Participants were regularly encouraged to bring current workplace communication problems and ongoing projects into the classroom, transforming professional difficulties into teaching material and creating a continuous feedback process between the engineering workplace and the language learning environment [5, 11]. Over time, this also contributed to a more adaptive form of language teaching in which workplace realities increasingly shaped lesson content and communicative priorities.

### ***2.2 Task-Based Language Teaching, Scaffolding and Writing-To-Learn***

Task-Based Language Teaching (TBLT) became one of the main methodological approaches of the program and was closely connected to the idea that language learning develops most effectively through active participation and meaningful interaction rather than passive reception [4]. A recurring challenge throughout the program was the gap between receptive understanding and productive communication. Many participants were able to understand highly complex technical information but struggled to explain it independently in German. Over time, the program therefore increasingly adopted an output-oriented perspective, encouraging learners not only to process technical language but to actively use it in professional interaction. This distinction became particularly important in workplace-related situations. When an engineer practised explaining a structural problem not as an isolated grammar exercise but as part of a simulated professional interaction, participants often became noticeably more engaged and



personally invested in the activity. In this sense, TBLT was also closely connected to scaffolding practices inspired by Vygotsky's zone of proximal development, the idea that learners progress most effectively when support is carefully adjusted to their current abilities and gradually reduced as confidence and competence grow [19]. Particular importance was also given to recurring professional expressions and formulaic language, since fluent workplace communication often depends less on isolated vocabulary knowledge than on the ability to retrieve and adapt functional linguistic patterns quickly and appropriately. Writing was integrated within a combined Speaking-to-Learn and Writing-to-Learn framework, where speaking and writing were treated not simply as a product to be evaluated but as a process that helped learners organise technical knowledge and reflect on their professional communication [1]. Engineers speaking and writing technical summaries in German were not only practising vocabulary and grammar.

### ***2.3 Intercultural Competence, Translanguaging and Critical AI Literacy***

Effective communication in German-Greek professional contexts requires intercultural competence alongside linguistic proficiency, a point strongly supported in the literature and repeatedly confirmed throughout this program in practice [7, 13, 14]. The differences between German and Greek professional communication cultures extend beyond grammar and vocabulary. Questions of directness, structure, and professional tone often influenced how technical communication was perceived [7]. For this reason, intercultural elements were regularly integrated into the lessons through workplace communication, current German topics and news, authentic materials, and discussions about regional language use and dialects. These aspects helped participants develop not only linguistic competence, but also a broader understanding of professional and cultural communication in German-speaking environments. At the foundational levels, Greek often became an important support tool within the learning process. It was used to clarify difficult grammatical structures, explain technical terminology, and discuss complex communication situations that would otherwise have remained unclear. Especially in high-pressure professional contexts, the strategic use of the learners' first language often reduced insecurity and helped participants process technical information more confidently [15, 16, 28]. This approach also reflects a broader shift away from older monolingual teaching models that viewed the first language mainly as interference. In practice, many participants were able to understand and discuss complex technical content more effectively when they could draw on both Greek and German as part of the learning process. The growing use of generative AI in professional communication gradually became relevant for the program, even though it had not originally been part of the teaching design. By 2023, several participants were already using AI tools for translation, emails, and workplace communication support. In some cases, the results were useful. In others, the generated texts sounded fluent but contained misleading technical terminology, inappropriate register, or factually incorrect information. As a result, AI-generated communication increasingly became part of classroom discussion. Participants compared AI-generated texts with authentic workplace communication, reflected on linguistic and technical differences, and discussed how experienced professionals would formulate similar content more appropriately. In this way, the growing presence of AI also reinforced the importance of authentic professional communication, professional language awareness, and critical reflection within the learning process [8, 9, 23].

Taken together, these theoretical perspectives helped shape a teaching approach that developed gradually in response to the communicative realities of the engineering workplace rather than through a strictly fixed curriculum.

## **3. Methodology**

### ***3.1 An Adaptive, Needs-Driven Framework***

The methodology of this program was not fixed at the outset. It evolved through continuous contact with a specific professional environment and changed, sometimes quite substantially, as workplace demands changed and as I learned, occasionally through mistakes, what actually worked with this particular group [5, 11]. The foundational levels (A1 to B2) required a strong emphasis on linguistic stability through vocabulary development, grammatical consolidation, guided production, and scaffolding strategies that provided structured support which was gradually reduced as learners became more independent [19]. At this stage, Greek was used strategically as a cognitive bridge, consistent with current translanguaging research [15, 16]. The advanced group (B2 to C1, together with two C2 participants) required a noticeably different approach focused more strongly on discourse competence: the ability to sustain



extended technical explanations, structure complex arguments under pressure, and communicate clearly and professionally in demanding workplace situations rather than simply producing grammatically correct language [1, 6].

### **3.2 Task-Based Activities, Case-Based Learning and Writing**

Task-based activities formed the methodological core of the program and included technical explanations, professional text analysis, phone-call simulations, structured oral presentations, and workplace-related writing tasks. In many cases, participants first presented technical topics in Greek before gradually transferring the content into German in more extended form, a strategy that allowed them to build on existing professional expertise instead of developing technical communication entirely from the beginning [15]. At advanced levels, podcast-style recordings were also introduced as an experimental but highly successful activity format. They required participants to produce extended monologic speech without conversational support and therefore simulated professional situations such as technical phone calls, project explanations, or solo client presentations quite closely [24, 25]. Case-based learning was, in my experience, one of the most effective methodologies at advanced levels and also one of the most demanding to prepare. Realistic engineering scenarios, including a simulation involving structural damage discovered after project completion, required participants to identify technical causes, assess professional responsibilities, formulate possible solutions, and communicate decisions to different stakeholders. These tasks could not be completed through linguistic fluency alone. They required the integration of technical judgement, professional ethics, and communicative precision, precisely the kind of integrated competence professional language education should aim to develop [20, 21]. Intercultural reflection and discussion were integrated throughout the program, not as isolated topics but as natural dimensions of the professional communication situations participants encountered in their daily work [7, 8, 9, 13, 14, 23]. Collaborative discussion and peer reflection also played an important role, particularly during simulations and case-based activities where participants evaluated different communicative strategies together. Recurring communicative patterns and professional expressions were recycled regularly throughout the lessons in order to strengthen fluency and communicative confidence.

## **4. Implementation**

### **4.1 Curricular Flexibility and Authentic Materials**

The implementation rested on a particular understanding of what a language classroom can be in a professional context: not a protected space separated from working life, but a space where the communicative challenges of the engineering workplace are brought in, examined, and worked through in the target language [5, 11]. Lesson content emerged from the intersection of published DaF materials and the participants' immediate professional realities, an approach that required constant adaptation but ensured that what happened in the classroom remained connected to what mattered outside it [1, 6]. Authentic documents were central throughout the program. Real reinforcement plans (Bewehrungspläne), soil reports (Bodengutachten), technical specifications, workplace emails, and project-related documents, not only textbook approximations, were used at every level, adapted in complexity for foundational learners and used as discourse models for advanced participants [17]. Case studies with historical and cultural depth, including the structural restoration of the Pergamon Museum in Berlin and bridge engineering projects, connected technical vocabulary to real engineering decisions and gave participants a broader sense of German engineering culture beyond their immediate professional context [7]. Current German topics and professional communication practices were also integrated regularly into the lessons in order to connect technical language learning with wider cultural and workplace realities. Several participants undertook work placements at the Lippstadt office during this period, and the communicative gains from those immersive experiences were often more significant than what equivalent classroom time alone could produce [6, 15].

### **4.2 Differentiation, Challenges and AI Literacy in Practice**

The differentiation between level groups involved far more than differences in vocabulary difficulty. At the foundational levels, the main priority was building enough linguistic confidence and stability for professional communication to develop gradually over time. This required scaffolding strategies, guided production, strategic translanguaging, and, above all, patience with the slower progress that adult



learners under considerable professional pressure do not always find easy [15, 16, 19]. At advanced levels, the focus shifted more strongly toward discourse competence: sustained explanation, structured argumentation, and spontaneous professional interaction in technically demanding situations. Some participants also attended external German courses and pursued formal certifications alongside the in-company training, which often accelerated their development beyond what weekly ninety-minute sessions alone could realistically achieve. It would be misleading to present the implementation of this program as entirely smooth. Participants often arrived at lessons before or after full working days, concentration was sometimes limited, motivation changed over the course of the four years, and some participants were openly critical of aspects of the training at different points. Learning to distinguish between criticism that required genuine changes in the teaching approach and frustration that mainly required acknowledgement was one of the more demanding professional challenges this program presented for me as an educator [17, 18]. Some participants regularly used AI-supported translation and writing tools in their daily work, which occasionally influenced written tasks, emails, and classroom discussions. [8, 9, 23, 26].

## **5. Results**

### ***5.1 Communicative Development and Speaking Confidence***

The most significant development across the four years was the gradual shift from passive understanding to more active and confident communication in German, a development that was difficult to measure formally but became increasingly visible in the way participants engaged with professional communication over time. Engineers who had initially avoided speaking German spontaneously, often preferring to communicate more carefully through writing, gradually became more willing and eventually more comfortable communicating in real-time workplace situations. This development did not follow a linear path. There were periods of visible progress, longer plateaus, and phases in which professional stress or workload noticeably affected participation and confidence. At the same time, there were also moments in which participants suddenly demonstrated communicative abilities that had clearly been developing gradually over a longer period of time [1, 6]. Systematic vocabulary recycling and the repeated use of functional expressions (Redemittel) provided participants with reliable linguistic tools for professional interaction: how to open a technical discussion or disagree in ways that German professional culture often perceives as direct rather than confrontational [22]. Participants also developed a growing awareness of how German professional writing differs from Greek or English professional communication styles [1, 7]. Speaking confidence developed most noticeably during authentic workplace-related tasks, presentations, and case-based simulations, which reflects findings from TBLT research on the relationship between authentic tasks and productive fluency [4, 24, 25].

### ***5.2 Intercultural Awareness, AI Literacy and the Limits of Progress***

Intercultural development was generally slower and more difficult to observe than linguistic progress, but its professional impact was often equally important. Over time, participants developed a growing understanding of how German professional communication and workplace culture function in practice, particularly regarding directness, structure, and professional interaction. The goal was not to imitate German communication styles completely, but to understand them well enough to navigate workplace situations more confidently and appropriately [7, 13, 14]. This development required time and continuous exposure to authentic communication situations, workplace discussions, and intercultural reflection throughout the program. In many cases, participants gradually became more aware of how small differences in phrasing, tone, or communicative structure could influence professional interactions in German-speaking work environments. The growing use of AI-supported translation and writing tools in the participants' professional environment also became increasingly visible throughout the program and occasionally influenced written tasks and emails. At the same time, the limitations of the program should also be acknowledged openly. Progress was not uniform across participants, motivation changed over time, and sustaining long-term engagement alongside demanding professional responsibilities remained challenging throughout the four-year period. In addition, the absence of formal outcome measurement remains one of the limitations of this practice-based account [17, 18].

## **6. Discussion and Conclusion**

### ***6.1 Authenticity, Educator Development and the Changing Role of the Language Teacher***



The primary conclusion of this paper is one with important implications for language teacher education: teaching professional language effectively requires genuine engagement with the professional field itself. I do not come from an engineering background. Yet over the course of four years I read about bridge construction, worked with real Bewehrungspläne, and tried to understand the Eurocodes well enough to recognise why they matter to the people I teach. This investment, something no DaF teacher training program formally prepared me for and nobody explicitly required of me, was, in my experience, one of the main factors that transformed the program from a general language course into training that connected more directly to the participants' professional realities [6, 7, 17]. At the same time, this long-term collaboration also changed my own understanding of language teaching. Over the years, I developed a much deeper awareness of the communicative pressures, workplace realities, and professional ways of thinking that shape engineering environments. The program therefore became not only a long-term process of professional and linguistic development for the participants, but also a continuous process of professional and interdisciplinary learning for me as an educator.

The classroom that developed through this process was not simply a protected space for language practice, but increasingly a space connected to real professional communication and workplace problem-solving. Authentic documents, realistic case studies, workplace communication, and professional challenges became central parts of the learning process rather than additional illustrative material [4, 17]. In this context, authenticity was not simply a teaching strategy but an important condition for relevance and engagement. When participants worked with real reinforcement plans instead of simplified textbook examples or discussed communication situations closely connected to their daily professional reality, the relationship between language learning and professional action became more immediate, practical, and meaningful [1, 6]. The experiences described in this paper also point toward a broader shift in the role of the language educator in professional contexts. In increasingly multilingual, interdisciplinary, and AI-influenced workplaces, language teaching can no longer be separated easily from intercultural communication, workplace interaction, and profession-specific communication practices. As a result, the role of the language teacher becomes more adaptive, interdisciplinary, and more directly connected to real professional environments than traditional language teaching models often assume. In many cases, language educators increasingly act not only as teachers of grammar and vocabulary, but also as mediators between language, professional communication, and workplace culture.

## **6.2 Future Perspectives and Professional Outlook**

Future research could examine more systematically how long-term workplace-oriented language programs influence professional communication, intercultural competence, and communicative confidence in multilingual technical environments. It may also be valuable to explore more closely how language educators themselves develop professionally through sustained engagement with highly specialised professional fields [8, 15, 18]. The experiences described in this paper suggest that workplace-oriented language teaching will likely become increasingly interdisciplinary, adaptive, and closely connected to authentic professional communication in the future. In multilingual and technologically evolving workplaces, professional language education may require stronger collaboration between language educators, subject specialists, and workplace institutions in order to respond effectively to changing communicative demands. The long-term nature of this program also highlighted the importance of continuity, trust, and sustained collaboration in adult professional language learning. Over several years, participants not only developed linguistic competence, but also greater communicative confidence, intercultural awareness, and familiarity with German-speaking professional environments. At the same time, the program continuously expanded my own understanding of workplace communication, engineering culture, and interdisciplinary language teaching practice.

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AI-supported tools were used exclusively for language correction, proofreading, and stylistic refinement during the preparation of this paper. All pedagogical observations, professional experiences, classroom examples, interpretations, and conclusions are based entirely on the author's own long-term teaching practice at STATIKS IKE and RADIN Planungsgesellschaft Tragwerke mbH. The author reviewed and revised all AI-assisted suggestions and takes full responsibility for the content of this paper.



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