

To be or not to be an expert?

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A technical writer works as a bridge between technical knowledge and clear communication. It is one's every day's challenge to find the perfect balance between expertise and accessibility. So as much as it is important to deeply know and understand a domain to make sure of the content's accuracy, this deep knowledge can also affect it negatively. This phenomenon is known as the curse of knowledge. This article explores the different perspectives on communicating complex concepts depending on the technical writer's status - apprentice or expert. Through a literature review and an analysis of professional practices, we highlight the importance of collaboration between experts and writers, as well as the major role of user orientation in the transmission of knowledge. The goal is to offer strategies to improve mediation between technical complexity and user understanding, but also to understand to what extent does a technical writer need to be an expert in one's domain.

Keywords: technical writing, expert, subject-matter expertise, curse of knowledge, user-centered communication, knowledge transfer

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Introduction

According to Steven Pinker in *The Sense of Style*, the more you know, the less clearly you write. It is the curse of knowledge. An experiment conducted by Steven Pinker on young children is rather relevant: he hands them a box of candy, and they expect to find candy inside the box. But instead of candy, they find pencils inside of it. They then believe that other children entering the lab will already think they will find pencils inside the box. They assume everyone knows what they know which means they cannot separate their own knowledge from someone else's perspective. If asked again, compared to other children, they will say that they expect to find pencils inside the box. This shows that they have already overwritten their memory with the new knowledge and cannot recall their earlier belief. Pinker explains that although children eventually grow out of the most obvious mistakes caused by this cognitive limitation, adults still struggle with a subtler version of it. We tend to assume that other people understand our words, have the same abilities as we do, and are familiar with facts we think are common knowledge. Therefore, what he means by 'curse of knowledge' is that experts usually assume that everybody has their level of knowledge in a domain. Therefore, when they write something, they write with their own jargon. This can be a problem for the readers.

But what is even an expert? An expert is someone very knowledgeable about or skillful in a particular area. The word 'expert' comes from the Latin *expertus*, which means 'to try' – a reminder that expertise is not born but built through experience, trials and errors. This origin highlights a central tension in human communication: even experts, shaped by experience, may forget what it is like *not* to know.

Therefore, the question we are addressing in this article is: **How does one's domain's expertise influence the clarity, accessibility, and overall effectiveness of technical writing?** More specifically, we aim to explore whether professional technical writers and apprentices face different challenges when communicating complex information to non-expert audiences. We believe they better understand the balance between technical accuracy and user-centered communication. Their insight will help us examine how domain expertise shapes the way technical information is communicated.

Methods

This section first explains our methodological choices before presenting participant demographics. To carry out our research project effectively, we had to begin the process entirely from scratch. This meant taking a step back. We had to thoughtfully consider what kind of information we needed, what kind of insights would be most valuable to our study, and which specific audience we wanted to hear from. We understood early on that collecting diverse perspectives was essential, particularly from individuals at different stages in their careers as technical writers. Doing so we could compare perspectives from beginners and experienced technical writers. As a result, we identified two primary target groups: apprentices in technical writing, and experienced,

or senior technical writers. We believed that comparing the viewpoints of these two distinct groups could yield meaningful contrasts and patterns that would enrich our understanding of the profession and its development. We also thought of interviewing a third group focusing on the technical writers switching domains regularly (from medical to energy, or software to electronics for example). Unfortunately this group proved difficult to identify, and we had no answers for the latter.

Initially, our plan was to conduct interviews with representatives from both groups. We were excited by the idea of collecting detailed, nuanced responses through live conversations, which we hoped would allow us to explore topics in depth and ask follow-up questions. However, as we moved forward with organizing these interviews, it became increasingly clear that this method presented several significant challenges. One of the main difficulties was logistical: our team consisted of just two people, and due to various scheduling constraints, we struggled to find sufficient face-to-face time to conduct interviews. Additionally, we encountered obstacles in recruiting enough technical writers who were both willing and available to participate in the interview process. This is understandable, as interviews tend to be time-consuming and can demand a level of commitment that not everyone is able or willing to give.

Faced with these practical limitations, we decided to shift our approach and opt for a more flexible and scalable data collection method. We chose to design and distribute an online survey. This method would allow respondents to participate at their own convenience and required significantly less coordination on our part. To reach as wide an audience as possible, we shared the survey on multiple social media platforms, encouraging both direct contacts and the broader community to take part. We hoped that this more accessible format would help us gather a greater number of responses and allow for a broader sampling of perspectives. Our efforts were further boosted thanks to the support of one of our professors who kindly shared the survey within her own professional network, particularly targeting former students of the Multilingual Technical Communication program. As a result of this outreach, we received 11 additional responses, which added valuable results to our data set.

Results

This section presents our findings, beginning with general demographics, then examining differences between senior and apprentice respondents. The deep analysis of the results we obtain is crucial to study our problematic.

1. General Findings

We start this results analysis by analyzing the questions common to all participants, regardless of their profile.

The first question we asked our participants concerns the domain of the company they produce documentation for.

Table 1: Answers to the three common questions. Survey on 15 respondents. August 2025.

Company's domain	Role	Status
Document engineering service provision	Owner's representative agent, technical writer, and tool trainer	Senior
Hydrogen	Technical writer	Apprentice
Technical writing service company	Team leader / technical writer	Senior
Document engineering	Technical writer	Senior
Payroll software	Technical writer	Senior
Aeronautics	Technical writer	Senior
Aeronautics	Project management	Senior
Technical writing service provision	Technical writer	Apprentice
Invoicing and purchasing, healthcare, HR	Technical writer	Apprentice
Document engineering	Operations director	Senior
Human resources and payroll	Head of Product Knowledge Team	Senior
Automobile	Project manager	Senior
Aeronautics	Documentation consultant	Senior
Software publisher	Technical writer	Apprentice
Energy	Technical writer	Senior

As displayed in *table 1*, the domains our participants work in are various:

- 3 in aeronautics,
- 1 in the car industry,
- 1 in energy,
- 1 in invoicing and purchasing,
- 1 in hydrogen,
- 2 in document engineering,
- 1 in payroll software,
- 1 in software development,
- 3 in technical writing services,
- 1 in human resources.

All in all, 11 different roles for 15 individuals, which indicates a high diversity and no single dominant industry. It also suggests that technical writers' expertise applies in both industrial and digital contexts.

It is important for us to be aware of the variety of these domains, and we must take this information into consideration through the analyzing process of our participants' answers. As their results show that technical writers operate in diverse environments, their domain-specific knowledge may vary significantly. This diversity may influence the factors we consider in this study (documentation styles, tools, user expectations). Hence, various domains often mean various professional activities, which can highly influence the participants' perspectives and opinions.

As we can see, as technical writers, our respondents have very various profiles and roles in their team. The results also reflect a broad spectrum of responsibilities, including:

- Project management,
- Supervision,
- Documentation consulting,
- Operations,
- Systems management.

These results mean that technical writers work in rather close collaboration with cross-functional teams, including decision-makers and domain experts. They do not operate in isolation.

Moving onto the next question, this time focusing on the status.

As we can see, most respondents identify as seniors in their field (73.3%) whereas the rest of the respondents identify as apprentices (26.7%). Notably, no respondents selected the option 'In domain transition', which may reflect either the specialized nature of the sample or a limited representation of career-changers in this population. These results show that most of our participants have a high level of professional experience, which provides a strong foundation for analyzing established technical communication practices. But early-career professionals are also present in our results. This gives us a more comprehensive understanding of current dynamics in technical communication teams.

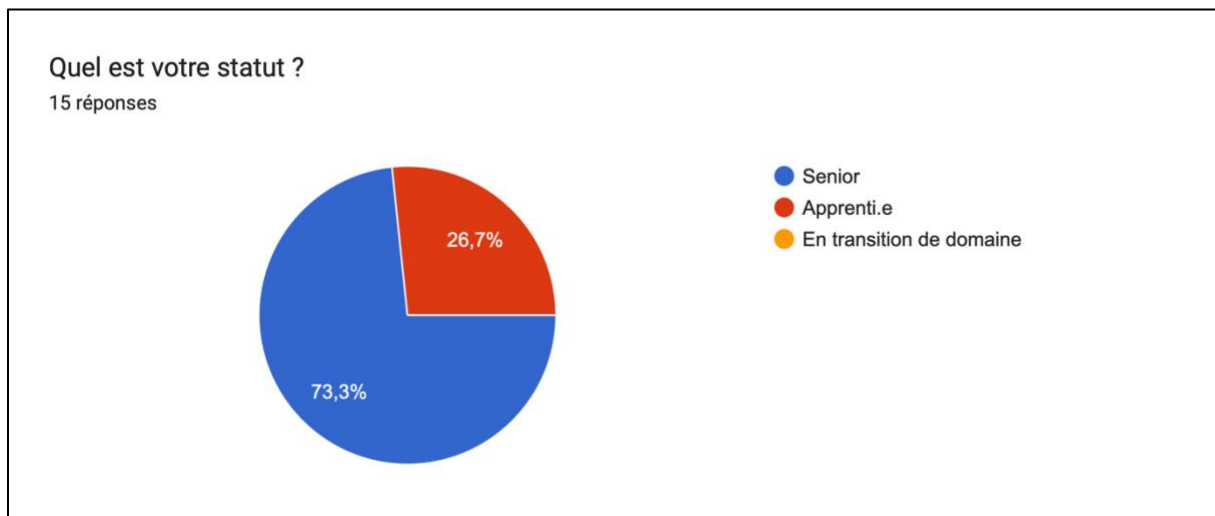


Figure 1: What is your status? General. Survey on 15 respondents, June 2025.

This distribution is especially useful for our research because it gives us a mix of viewpoints. Most participants are experienced professionals, which means we get a good picture of how things are usually done in the field. At the same time, having a few apprentices in the sample helps bring in fresh perspectives from people who are just starting out. Since most respondents are seniors, though, the results might reflect more traditional or established practices.

We can also notice the absence of answers for technical writers in transition, as mentioned earlier.

2. Senior Technical Writers

Firstly, we will be focusing on the senior-level results analysis by analyzing the answers to a fundamental question: ‘Do you consider yourself an expert?’.



Figure 2: Expertise consideration, Senior. Survey on 11 respondents, June 2025.

The answers we observe are various, implying once more that this point is rather subjective. Nevertheless, one answer is more dominant than the others: ‘No’ (45.5%). Almost half of the participants answered no, meaning almost half of the participants do not consider themselves an expert. The second, less dominant answer but more dominant than the three remaining, is ‘Yes’ (27.3%). Which means that almost one third of the participants do consider themselves experts. Finally, three other minor answers are:

- I have a good command of my subjects without being an expert (9.1%),
- Technical writing expert yes (9.1%),
- I consider myself an expert in written messages and information structuring (9.1%).

These results reflect that among the expert technical writers’ respondents, almost half of them do not consider themselves experts in their domain, despite their experience and long-term professionalism. This means that, even if you are working in the same field for a long time as a technical writer, it does not necessarily mean you feel an expert in it.

But since almost one third of the respondents do consider themselves experts, it really varies and depends on more various criteria. It can be the size of the technical writer’s team, the role in it, the tools used, the frequency of exchanges with experts, etc. Some respondents do consider themselves experts, but experts in technical writing, not in the domain. Others also consider that they master the subjects of the domain very well, but not well enough to call themselves experts.

The answers are varied enough so that we can confidently say that the expertise consideration is a rather subjective topic which depends on how well you take ownership of a subject. Therefore, working a lot in the same field as a technical writer does not necessarily make you an expert, or at least does not necessarily make you *feel* like an expert.



Figure 3 Expertise role in technical writing, Senior. Survey on 11 respondents, June 2025.:

When it comes to the question focusing on whether a technical writer should be an expert in one's writing domain or not, the answer (seniors and apprentices) is unanimous: 15 out of 15 responded 'No'. But this answer can be looked at with a different eye since an 'expert' is hard to define. It also depends on which 'field' we are referring to: technical writing, or the field in which the technical writer writes the most? We can wonder what the answers would have been if technical writers had been asked if they considered themselves experts in technical writing. Then, differences might have emerged between Senior and Apprentice profiles.



Figure 4: Expertise role in technical writing, Apprentice. Survey on 4 respondents, June 2025.

When asked about how long a technical writer needs to invest in to become fully operational with a new specialized field, the range of results was rather wide.

Out of 11 Senior profiles, the answers oscillated between 1 and 8 months. For many respondents (6) this question is influenced by the type of subject they would need to master, as well as how long the deadline would be. Indeed, the time needed will highly fluctuate depending on the field's complexity, technicality and the initial level of knowledge of the technical writer. There is a clear correlation between the level of technicality in a field and the time one would need to understand it just enough to be able to write clear and precise documentation.

Of course we can find exceptions to this, as a technical writer does not need to reach the same level of expertise as an engineer to document a topic. One of the most important steps for a technical writer is to gather information and as simple as it seems, it is a skill that needs to be learned and trained.

The chart on *figure 5* illustrates the responses of senior technical writers when asked to rate the importance of collaborating with subject matter experts during the technical writing process. Out of 11 respondents, the majority (54.5%) rated this collaboration as extremely important (5 out of 5), while 27.3% rated it a 4, and 18.2% a 3. Notably, no participants rated the importance below 3, indicating a strong consensus on the essential role of domain experts in ensuring the quality and accuracy of technical documentation.

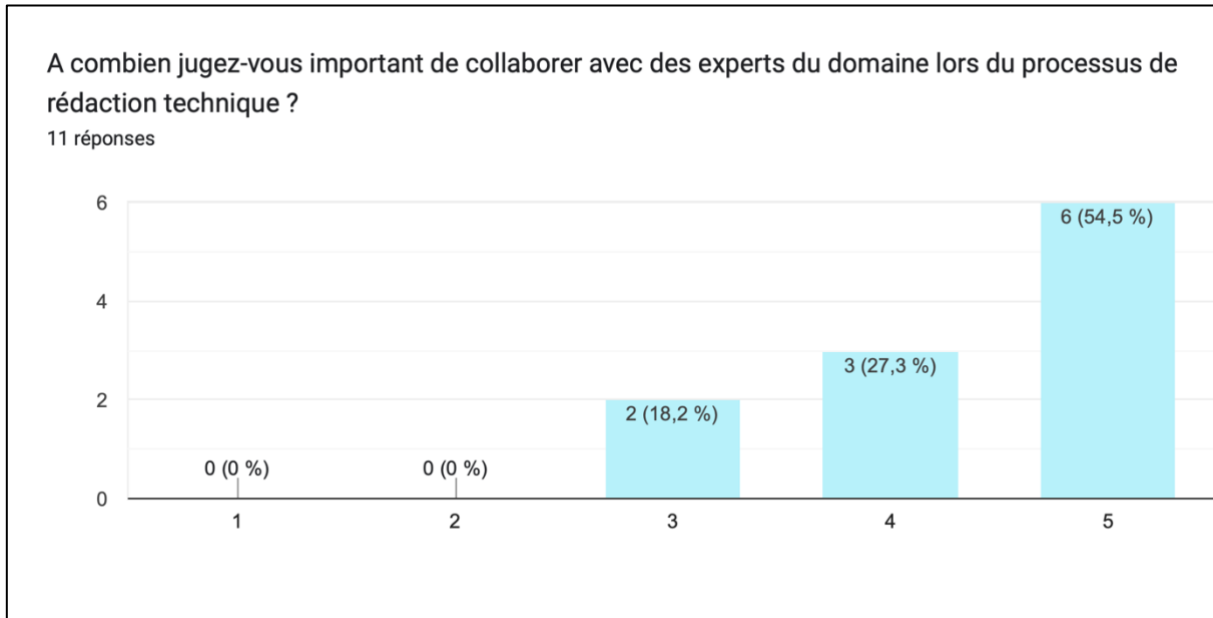


Figure 5: Collaboration with experts, Senior. Survey on 11 respondents, June 2025.

To better understand how senior writers navigate situations where such expert input is unavailable or insufficient, we will also analyse their open-ended responses.

The answers provided by senior technical writers reveal a set of adaptive and resourceful strategies grounded in both individual initiative and collaborative problem-solving. A recurring theme among the participants is the reliance on existing documentation and self-directed research as a primary fallback, suggesting a high level of autonomy and domain familiarity. One respondent described their method as ‘either by searching for the available documentation, or by asking questions. If not, write down your questions, formulate hypotheses and present them at the meeting to check that they are valid or to obtain the answers’. This answer reflects a structured and hypothesis-driven approach to bridging knowledge gaps.

Many technical writers emphasized iterative processes, where incomplete understanding is documented and later refined through further interactions. For instance, another participant noted ‘I document what I've understood and usually ask a colleague for an outside perspective. This cross-fertilization is very helpful in identifying questions I wouldn't have thought of on my own’. This practice demonstrates how experienced technical writers use peer insight to uncover blind spots and enhance the completeness of their understanding.

Proactive communication also featured prominently, particularly through tactful persistence or live conversations with experts. This highlights the value

placed on synchronous communication to resolve ambiguities more efficiently than through asynchronous channels.

Time constraints and deliverables also influence how senior technical writers respond to unavailable expertise. As one respondent wrote: 'According to deadlines, I deliver a version as is with the information gathered, even if it's incomplete, and notify them of any missing information'. This reflects a pragmatic balance between ideal documentation practices and the realities of production schedules. Overall, the variety and nuance in these responses suggest that domain expertise enables senior technical writers to remain flexible and solution-oriented; To do so, they use a combination of analytical reasoning, peer collaboration, strategic communication, and deadline management to maintain documentation quality even in suboptimal conditions.

The answers to the question '*How do you adapt technical content to make it understandable to a non-expert audience?*' highlight a set of recurrent practices among senior technical writers aimed at increasing clarity and accessibility for novice users. A consistent theme across responses is the careful simplification of language and structure. This combination of linguistic clarity and visual support is frequently cited to make content more digestible. Equally important is the effort to adopt the perspective of the intended audience. Several technical writers emphasized testing their own understanding as a proxy for accessibility. For example, one respondent explained, 'I'm the first naive person to spend time on the text. If I can understand it, that's already a first step towards popularization! If not, I'll need a glossary and a progressive tree structure to present the subject'. This reflective, self-testing method positions the technical writer as a stand-in for the end-user, reinforcing an empathetic approach to content creation. Others also mentioned asking their colleagues to take part in the proof-reading process so that they can bring new perspectives.

Lastly, a strong commitment to consistency and usability appears in responses that refer to established editorial standards. These various approaches reflect the combined use of linguistic, pedagogical, and user-testing strategies in adapting complex content to a broader, less specialized audience.

3. Apprentice Technical Writers

We had very few answers (4) for the apprentices, but we thought it was interesting to analyze them as it remains a representative sample of technical writers in apprenticeships.

For the first question (common to both groups), which asked about technical writers' perception of themselves as experts, the responses were noticeably different. On one hand, the senior technical writers gave varied answers; on the other, the apprentice technical writers unanimously stated that they do not consider themselves experts. But what does this mean, and how can it be explained? Is it a matter of lacking experience or confidence in their abilities? Or perhaps the clarity of their response stems from the fact that, due to their limited experience, apprentices tend to focus primarily on the subject matter they are documenting rather than on their own area of expertise: namely, technical writing itself. This, however, remains a hypothesis that would need to be tested through a broader survey conducted with a larger and more diverse audience.

When asked how they approach unfamiliar technical subjects, apprentice technical writers consistently described a strong reliance on questioning, documentation review, and hands-on experimentation. All four respondents emphasized the importance of asking questions, both to clarify information and to actively engage with the material. This reveals the importance of interpersonal communication in their learning process.

Compared to the strategies used by senior technical writers, the approaches of apprentices appear more exploratory and reactive. While experienced technical writers often described initiating hypothesis-driven analysis, triangulating peer perspectives, or independently drafting preliminary content based on incomplete knowledge, apprentices leaned more heavily on absorbing existing resources and reiterative testing. For example, one apprentice simply stated, 'Test the tool/product again and again' reflecting a hands-on, trial-and-error learning style. Similarly, reading documentation before approaching experts was common, but typically positioned as a precursor to asking questions rather than a method of deeper interpretation. This contrast suggests that while senior technical writers often synthesize and reframe information autonomously, apprentices are more likely to depend on external guidance and iterative exposure to build their technical understanding.

The responses from apprentice technical writers regarding how they adapt content for non-expert audiences emphasize foundational principles of clarity, simplification, and visual support. Several mention following established technical writing practices to ensure information is transcribed clearly and concisely, suggesting that their approach is still closely guided by formal instruction or learned frameworks. Language adaptation is also central, with a conscious effort to reduce or eliminate technical jargon and, in some cases, to favour more conversational or accessible vocabulary. Visual tools (diagrams, images, and graphs) are seen as effective supports to enhance comprehension,

and analogies are mentioned as a means of making abstract or complex concepts more relatable, depending on the audience.

In comparison, senior technical writers demonstrate more nuanced and targeted adaptation strategies. While apprentices tend to apply general rules uniformly, experienced technical writers focus on tailoring the content structure, clarifying expert assumptions, and actively testing documentation against novice perspectives. This reflects a shift from rule-following to strategic user-centred thinking that comes with deeper domain familiarity and experience.

When faced with contradictory or incomplete information from experts, apprentice technical writers primarily rely on direct clarification through persistent questioning and confrontation. Their typical approach involves asking further questions until the issue is resolved, openly pointing out inconsistencies between experts, and seeking confirmation by cross-checking with existing documentation or consulting additional experts. This method reflects a practical and determined effort to eliminate ambiguity, but it also underscores their dependence on external validation rather than autonomous resolution. In contrast to senior technical writers, apprentices tend to prioritize immediate resolution through direct engagement, revealing a more reactive and less interpretive stance in handling conflicting information.

The results presented in *figure 6* draw an interesting parallel with those we mentioned at the start of this section (on considering oneself an expert). Although none of our apprentice participants consider themselves an expert, 3 out of 4 nevertheless feel justified in questioning or even reformulating what an expert says. This also highlights what was mentioned earlier in this analysis: here there is a clear parallel between the writing domain and the expert in that domain.

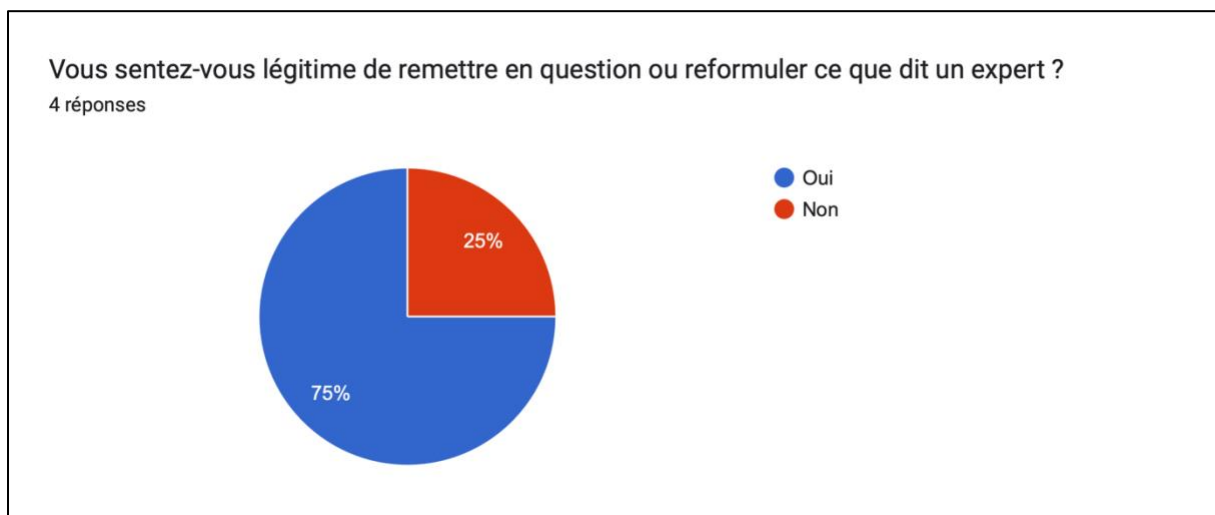


Figure 6: Legitimacy, Apprentice. Survey on 4 respondents, June 2025.

Discussion

The results of our study reveal a crucial distinction between domain expertise and technical writing expertise. When asked whether they considered themselves experts, respondents gave context-sensitive answers that underscored how subjective the notion of expertise is. Experience did not automatically equate to a sense of authority: confidence, team dynamics, and scope of responsibilities all played a role. All apprentices answered ‘no’ citing a lack of experience, while some senior technical writers answered ‘yes’, though not necessarily because of deep domain knowledge. Rather, they framed their expertise as a familiarity with navigating complexity and managing communication effectively. Strikingly, all participants (regardless of experience) agreed that technical writers do not need to be subject-matter experts to perform well. This unanimous view underscores a shared understanding of technical writing as a discipline rooted in communication, mediation, and simplification, not domain mastery. Instead, success lies in bridging complexity and user understanding, echoing ISO/IEC/IEEE 26514 standards, which emphasize structuring, audience analysis, and usability in documentation.

It is important to acknowledge that this study is subject to certain limitations. The small sample size, especially the low number of apprentices and absence of career-transition profiles, restricts the generalizability of our results. In addition, relying on self-reported survey data may have introduced subjectivity. Future research with larger, more diverse samples and complementary interviews would help refine these findings.

This insight has important implications for the clarity and accessibility of technical content. While domain knowledge may offer technical precision, it can also cloud the ability to explain concepts clearly, particularly to non-expert users. Warren (2022) found that subject-matter experts often struggle to present their own research clearly, burdened by implicit assumptions and insider knowledge. In contrast, technical writers, by standing slightly outside the domain, can reshape complexity into digestible, structured content. Our findings support this: experienced technical writers described iterative methods as key to producing clear documentation. Their effectiveness did not come from knowing everything, but from knowing how to learn and explain efficiently. This reflects Cao et al.'s (2020) work on AI tools that ‘translate’ expert-level writing into accessible formats, reinforcing the idea that clarity comes from perspective, not just expertise.

Our findings echo those of Lorber (2025), who emphasizes that technical writers do not need to become subject matter experts themselves but rather succeed by asking the right questions and collaborating closely with experts. This parallel reinforces our conclusions by showing that the challenges we identified—formulating pertinent questions, building legitimacy, and practicing active listening—are not isolated struggles but reflect a broader professional reality. While Lorber highlights the complementary relationship between technical writers’ communication skills and the deep expertise of SMEs, our study adds practical insights into how novices develop questioning

strategies and interpersonal competencies in real workplace contexts. Together, these perspectives underscore that communication skills—curiosity, active listening, and the ability to translate complexity—are central to technical communication practice today.

Ultimately, domain expertise can support technical writing, but it is the ability to communicate across boundaries that most strongly determines its success.

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A student in her final year of the CTM master's program at Université Paris Cité, her eclectic background led her to discover technical writing. Her apprenticeship with IGDoc, as a technical writing service provider, enabled her to reinforce her jack-of-all-trades talent thanks to the wide range of fields she discovered there, as well as the varied projects she was able to contribute to. Passionate about psychology, she is particularly interested in cognitive biases in technical and UX writing.

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After graduating from the Sorbonne University with a bachelor's degree in Foreign Applied Languages, she applied for the Multilingual Technical Communication's Master's degree at the Paris-Cité University and graduated in 2025. During that year, she worked as an apprentice technical writer at Cegedim Business Services, producing documentation on HR and payroll software and therefore improving her writing and technical skills. Fascinated by Technical Communication, she hopes to build a strong professional profile in that field.