TRANSKRIPT | Beyond Grammar: Why Engineers Need Technical English to Get the Job Done (#133 Paul Talbot)

Bella Kitzwögerer: In the Technikum podcast, we don't just talk about technology, we actually live it. Join us to discover how science, technology and innovation are shaping our future. In technical degree programs English is often treated as a side subject, yet real engineering practice tells a different story.
Communication is central to how engineering work actually gets done. In this episode, we talk to Paul Talbot, senior lecturer and researcher UAS Technikum Wien, about why English needs to be rethought in technical education not as a standalone language skill, but as a tool for collaboration, decision making and coordination. Following Paul Talbot's Ars Docendi Award 2025 for the course Technical English, we explore how relevance improves motivation and study ability, and how universities of applied sciences can better prepare students for real professional communication in engineering contexts.
Hi Paul, welcome to the podcast Paul!

Paul Talbot: Hi! Thanks for having me.

Bella Kitzwögerer: You have your lecture called Technical English. Yet many students sit in this course and already think, hey, I can speak, I can understand, I can write English. Why am I even here? What is your course about and why is it relevant?

Paul Talbot: I adapted or re-adapted the Technical English course now in 2023, to make it a course that dealt with three main problems. The first being the interdisciplinarity of degree programs. Here we have thirteen different bachelor programs, thirteen very different areas with thirteen sets of technologies that are relevant to students in different ways. With this interdisciplinarity, we also have varying levels of language proficiency. So, people come to this university largely with a high level of language proficiency, particularly in terms of informal conversation, informal communication. People tend to be very, very talkative - not everyone. And the third thing is student motivation. Particularly where students come here and they feel like their communicative competencies are very high because they do a lot of gaming in English, or they have a lot of international friends, and they watch a lot of international media. And of course, with the growing relevance of generative AI, people perhaps think, well, why do I need to learn a language? Why do I need to learn to write when it can be done for me?
These were issues that we were facing. While all students are working towards common learning outcomes, that's really important. What we did was adapt the course content to the technologies and terminologies of each different program. We created self-study

materials that allowed us to introduce subject specific texts and subject specific vocabulary that are different for each of the different study programs and then allow writing and discussion tasks to build on those during the classroom sessions. One of the benefits of that for teachers is that language teachers and communication teachers are very rarely disciplinary experts. I could be teaching on five different degree programs here. I'm neither a biomedical expert. Neither am I a renewable energy expert. Neither am I expert on robotics. But I need to be able to engage with the students on those topics in the same way and in a way that they're going to learn. So by giving the students self-study work, texts, giving them vocabulary that is really specific to their study area in a way. They're also learning something about their field as well makes it motivating for the students. But it also means that when we come to the classroom, I can focus on developing the writing skills, developing the communication skills that allow the students then to take what they've learned and express it, write about it and communicate with each other. That's where the activities of the language teacher can focus on what they can do in terms of teaching language and communication, while the students have the sense of autonomy in learning the specific vocabulary, engaging in text types and in information about the technologies that interest them.

Bella Kitzwögerer: In the bigger picture. You prepare them for their professional way afterwards?

Paul Talbot: We would like to think so. Of course, technology develops really quickly, so whatever we work with our students on in the first semester, we can't guarantee that these are going to be exactly the same topics that they're going to be addressing in their future careers. Of course, we work closely with the individual study program directors to look at what topics could be most relevant. Now this could be topics that are relevant for the industry as a whole. It could, however, be topics that maybe the students are going to be faced with in the second, third, fourth semester of their studies. And with most scientific literature being in English, it's quite good that the students are prepared, at least in advance, for some of the terminology and some of the concepts that they're going to be faced with further on in their studies. We would hope that the skills that they develop within the English language and communication instruction are still going to be relevant. But I think that that's more going to be on the basis of the text types, the discourse management, the ability for them to communicate, across disciplines, the ability to communicate technical items and technical terminology and technical concepts with non-experts in English in an international context. Those are the skills that they're definitely going to need, whether they're going to need exactly the same vocabulary five, six, ten, fifteen years later, of course, I can't know. What is good is that the content that they're working with is something that they are interested in. And as long as we can generate that interest and that relevance, then that encourages motivation.

Bella Kitzwögerer: Makes sense! Congratulations on winning the Ars Docendi Award of 2025. Um, can you tell me a bit more about it?

Paul Talbot: Thank you! The Ars Docendi Award is the “Staatspreis” for “Gute Lehrer” in Austria. I received the runner up prize, the “Anerkennung” Prize, for the recognition award for the category of “Improvements in Teaching and study ability”. It was a huge honor, of course, to win this award. And it was amazing to be recognized, particularly within an engineering University for the work that we do in non-engineering topics. That was extremely gratifying for me and I think for all of us - the people working in my competence field and all of the lecturers working on this particular course. For me, it was almost a strange experience because I got an award for something that for me came as second nature. So when I started here, I saw that there were certain deficits in the course as it was. I experienced through my own teaching here that the students were not necessarily engaging in the work, that they didn't find it overly relevant. And for me, it was the natural thing to say, okay, here's a problem, I want to solve it. And I had a lot of fun solving that. And for me, I'm a very big picture person. And so what I could kind of see in front of me was this unfinished jigsaw piece. And all I really did was then try and find all these jigsaw parts and put them together in a way that then made sense. That could be used and utilized across these different study programs. I got a lot of personal satisfaction from putting the course together. The fact that that was then acknowledged at an institutional and even at a national level was, of course, extremely gratifying. I would have done it without the incentive of the award as well.

Bella Kitzwögerer: You just said that it was not as relevant for the students as other courses were. Speaking of relevance, why is relevance important?

Paul Talbot: Nobody wants to learn something, or nobody is going to engage in something if they don't see it as relevant. Particularly in a University of applied science setting. Students come to an institution like this with very clear career goals in mind. They come here for practical applications. They come here because it is connected to industry. It's connected to practice. And so I think we have to be extra careful. We have to pay extra attention to highlight the bridge between what students are learning in the classroom and the kind of work they're going to be doing in industry, in the workplace. Without that bridge, I imagine it becomes very demotivating. That was the experience that I had, perhaps on former iterations of this course where, for example, biomedical engineers are dealing with texts about Bitcoin or about blockchain, and it's quite difficult to generate that motivation and highlight that relevance when the bridge between the academy and the profession, the bridge between learning and practice, it's quite difficult to demonstrate that bridge.

Bella Kitzwögerer: What does it mean for you to learn and teach English? And how did you move beyond this speaking, writing, listening, reading system?

Paul Talbot: I talked on a previous podcast episode a couple of years ago here, that there was a move within the language teaching world away from the traditional speaking, reading, writing, listening framework to a more granular approach that looked at real applications of these skills. Writing what for whom. Listening under what circumstances. Speaking with which audiences. This provides a really, really useful guideline for developing courses and developing curricula. A good example of that would be some of the master courses that I have developed and some of the master courses that I am developing where I'm moving away from the idea that we need to write a particular type of text - we need to write an essay, we need to write a report, we need to write an email, a memo. Those are, of course, important. It's important that students know how these text types look. But more importantly, looking at some of the competencies that are involved in developing those types of texts. The way students can mediate knowledge, this is one of the competencies within the Common European Framework of Reference for languages - how students can mediate knowledge, how they can link their current communication to previous knowledge, how they can help other people to understand complex ideas, how they can explicitly connect ideas to what other people already know. So really looking at audience context, or it could be about helping them to break down complicated information. It could be about helping them to produce arguments that are extremely precise, that they can express ideas that are accurate, that are nuanced, that are qualified. All of these things go above and beyond is this text written grammatically correct with correctly spelled words with a wide lexical range, whatever it might be. It really goes into the process of how am I using English? How am I using it in order to get the job done? This is something that is extremely relevant. Also, theoretically, there's a field of applied linguistics, um, called English as a lingua franca or ELF. And this really highlights the fact that the vast majority of communication in English internationally is between people who don't have English as a first language. So why should our students when they go out into the world of work prioritize grammatical accuracy, which of course can be very easily corrected by artificial intelligence tools? For many years it's been possible to address these with simple spell-checking tools. Being able to write or produce accurate language is a great skill to have, but whether it's the most important skill in the workplace is perhaps questionable.
What is important is when you're an Austrian and you're talking in English with somebody from Turkey, from China, from India, from Iceland, wherever. That you're able to get the job done, that you're able to communicate in a way that is effective, that ensures everything is understood, that ensures that you understand what the other person is talking about, ensures that the message is put across correctly, and it ensures that the task at hand isn't going to be complicated. We did some research here on a European funded project, ECHO-GT, which focused on looking at how communication is situated in engineering tasks. One of the key items that came up was this interdisciplinarity or necessity to communicate ideas across different levels of expertise, across different levels

of authority and across different stakeholders. One of the issues that came up was things being lost in translation.
Let's say I'm working on a building project. And I'm communicating something with the architect. The architect is talking to the client, who perhaps has other expectations as the architect himself. The architects then in between these two ideas. Even in a first language setting that provides quite a complex communication dynamic. If you add the extra level of communicating across linguistic boundaries and perhaps across cultural boundaries, this becomes a potential disaster.

Bella Kitzwögerer: By that, you already answered why good grammar and language skills and language levels often are not enough in professional life. Can you give us another example where English worked particularly well in a project because of this way of going beyond.

Paul Talbot: I think in a context where we're teaching these skills, it's always easier to identify what goes wrong and to correct it, rather than being aware of where things go right. I think that perhaps that's also something to learn from, that when communication really works, that we pay attention to that and not just look at where communication breaks down. I suppose you could say that communication works in any instance where it doesn't break down. But to be able to highlight a specific situation or a specific project where good communication has prevented things from going wrong, I guess you could say, any project where things haven't gone wrong, you can put it down to the fact that something was communicated well somewhere along the line.

Bella Kitzwögerer: So you would say we will learn from negative examples from that.

Paul Talbot: I think that we can always learn from negative examples. Hopefully we can avoid negative examples. That's perhaps one reason why being able to practice and develop these skills in an applied education environment like this. It is extremely useful, largely because if we can get students to really reflect on what those problems are, what those problems could be, and we allow them to make those mistakes in a safe setting. Then these mistakes are perhaps going to be less prolific in the workplace - one would hope. I see this a lot with one of the courses. I teach professional writing skills at master level, and particularly this year we had some really interesting feedback after the lesson. The lesson finished at eleven o'clock in the morning on a Saturday, and one of the students stayed with us until half past twelve, like another hour and a half, just talking about what they feel they've learned and how they weren't expecting that and how relevant they feel that is to their career and how relevant that is to their life and how these kind of skills shouldn't just be left to the end of the master's degree, but as something that they could have really benefited from much earlier in their education.
If we can see that students are being able to reflect on why communication works and why communication doesn't work, and that the student is able to reflect on that, then that is a

huge success regardless of an exam result. That itself is a huge success, and it's something that we should certainly pay more attention to throughout the educational journey and not just at individual isolated points.

Bella Kitzwögerer: What are other benefits of this approach of teaching English?

Paul Talbot: I think that by framing English as communication in an international context, we can actually look at specific situations where communication is occurring in an international context and develop the skills associated around that. One example of that would be a master course that I'm currently developing, which is going to focus on how students can link their research, their master thesis research, their scientific interests to more policy relevant problems. How they can frame their scientific goals, their scientific objectives in terms of policy relevant problems. How they can frame those for policy makers. And in that case, they're not just practicing English, but they're practicing core scientific skills. They're having to produce concise problem statements. They have to have clear thesis logic. They have to develop claims and reasons and assumptions. They have to select evidence and synthesize it. They have to fit their framing to a specific audience. It also involves them identifying stakeholders, identifying policy stages and touchpoints and indicators and assumptions. All of these things are perhaps activities that they wouldn't necessarily be exposed to in purely technical subjects. I think that one of the huge advantages of focusing on English as international communication in international science and engineering tasks is that we get to expose students to this stuff that happens outside of the disciplines. We get to expose them to stuff that they wouldn't usually come into contact with. We get to develop skills that are beyond language, beyond linguistic skills, and looking at how they can apply themselves as engineers on a global scale, with English as a tool in the background. That is something that I find really motivating and exciting as a teacher and as a course developer.

Bella Kitzwögerer: Paul, now, I'm also very curious about your course and I wish I could take part in it, because I think it's not only important for technical jobs, because I think it’s not only important for technical jobs, but for any profession to improve communication skills. If students learn that early on, it's amazing. To finish up: in your opinion, what should students absolutely understand about English and communication before entering professional life?

Paul Talbot: Well, one thing I always say to the students at the beginning of the course is: “Don't be scared of imperfection. It's absolutely okay to make formal mistakes. It's absolutely okay to have an accent. It's absolutely okay to occasionally pronounce something that is not the correct pronunciation, as long as it doesn't lead to miscommunication or misunderstanding.”
I think perhaps for students coming through a secondary education system which focuses on highlighting what they've done wrong the whole time - which I think is common in the

school system here - to a situation where they're being told, it doesn't matter if you're doing it formally wrong. What's important is that you're able to get your message across and you're able to get the job done, and you're able to do this effectively. That's a confidence boost. I think that when students go into the workplace, they should definitely go from the perspective that it doesn't matter if I'm not talking like a native speaker. What's important is that I have the confidence to get my ideas across, that I have the confidence to collaborate and to produce knowledge in collaboration and coordination with other people. That's super, super important.

Bella Kitzwögerer: Sometimes it really feels that way, doesn't it? When you focus too much on the language and on avoiding mistakes, you create a kind of mental barrier for yourself – and that can really get in the way of effective communication.

Paul Talbot: Yes, and I think that if we look at pedagogical theories in second language acquisition, task-based learning has been around for quite a long time. And task-based learning really focuses on what is the non-linguistic task that I'm trying to fulfill, and how can I use my linguistic resources to fulfill that task. And in an applied setting, that is essentially what we should be doing all the time. It should be about getting a job done, evaluating how well I can use language to do that, evaluating how I can cooperate with others in that language to do that, evaluating how well I can interpret other information, that I can read complex texts and translate that information well, and then look at perhaps what went wrong, look at what went well. And that's the learning outcome, that the task is achieved successfully. And so, task-based learning is one thing that is really, really central to everything that I do and the courses that I develop. They all have a strong task-based learning dimension. Because essentially that's how we learn.

Bella Kitzwögerer: I'm sure by having said all that, people got an idea about the relevance of this topic and of your course and your lecture. Thank you so much for being in this episode.

Paul Talbot: Thank you very much for having me again.

Bella Kitzwögerer: Thank you for listening, and we're happy to have you for our next episode.