

Teaching ESP in Higher Education: Examples from Evidence-Based Practice

8th Austrian UAS Language Instructors' Conference Proceedings

Edited by

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About the conference proceedings

This volume contains contributions for the 8th Austrian UAS Language Instructors' Conference 'Teaching ESP in Higher Education: Examples from Evidence-Based Practice', held at the FH JOANNEUM University of Applied Sciences in Graz on 20 and 21 May 2016. This conference was jointly organized by a group of in-service language instructors and primarily aimed at encouraging professional exchange between ESP experts and practitioners across a variety of institutions. It followed the 7th Austrian UAS Language Instructors' Conference held in Vienna in May 2014 in a series of national events initiated in Vorarlberg in 2001 to provide ESP instructors with a platform to share latest developments in their field.

The keynote speeches were held by Sarah Mercer, Armin Berger and David Newby, internationally recognized researchers and practitioners in the fields of language learner psychology, language testing and assessment, second language acquisition and language learning didactics. In addition, the conference organizers were delighted to welcome Sarah Breslin, Director of the European Centre of Modern Languages (ECML), located in Graz, who gave some insights into the role and work of this institution.

Altogether, 25 talks, four workshops and seven poster presentations were held by speakers from all over the world to share their expertise and experience. Thirteen of these talks, workshops and poster presentations are presented in the present conference proceedings.

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Introduction: English for specific purposes in higher education

Tanja Psonder, Annette Casey, Dietmar Tatzl

FH JOANNEUM University of Applied Sciences

The university of applied sciences sector in Austria is characterised by multi-disciplinary degree programmes that combine traditional academic fields with a view to catering for rather specialised workplaces and professional profiles. Degree programmes at universities of applied sciences are further distinct from most other university curricula in that they incorporate obligatory English language courses for all students. In this way, students are enculturated into global career-field communication through specialised English language teaching.

English for specific purposes (ESP)

Since the 1960s, English for specific purposes (ESP) has occupied a unique place in English foreign language teaching. In general, ESP courses are influenced by a vast number of specific disciplines which are united by one thread, which is the English language. Strevens (1988) clearly defined the meaning of ESP, splitting it into “absolute” and “variable” characteristics (cited in Dudley-Evans & St John, 1998, p. 3). This description of ESP was redefined and further developed by Dudley-Evans and St John (1998). According to them, *absolute* characteristics include that:

- ESP is designed to meet specific needs of the learner;
- ESP makes use of the underlying methodology and activities of the disciplines it serves;
- ESP is centred on the language (grammar, lexis, register), skills, discourse and genres appropriate to these activities. (pp. 4–5)

In contrast, they enumerate the following *variable* characteristics:

- ESP may be related to or designed for specific disciplines;
- ESP may use, in specific teaching situations, a different methodology from that of general English;
- ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation. It could, however, be used for learners at secondary school level;

- ESP is generally designed for intermediate or advanced students. Most ESP courses assume basic knowledge of the language system, but it can be used with beginners. (p. 5)

Dudley-Evans and St John's (1998) definition differs from Hutchinson and Waters' (1987, p. 14), who described ESP as a language teaching approach in which an awareness and understanding of language *learning* must be placed in the foreground. In any case, ESP in general rests on the four pillars of content, learner needs, course design and language skills. They form the scaffolding which subsequently has to be filled with tailor-made variables.

Teaching ESP at universities of applied sciences

The main goal of teaching ESP at universities of applied sciences is to enable students to carry out work-related tasks in English once they enter their chosen professions. At universities of applied sciences, English language instruction is, for the most part, fully integrated into the curricula of the individual degree programmes (Tatzl *et al.*, 2012). This means that English is taught in the form of language courses focussing on domain-relevant content in combination with the acquisition of communicative skills. Nonetheless, particularly at postgraduate level, the instruction methods may differ in that in some degree programmes English is used as a medium of instruction in content courses with or without accompanying language teaching units. At all events, ESP practitioners at tertiary institutions are confronted with learners from diverse educational backgrounds, with different degrees of professional experience, with different language levels and with differing demands on the courses. One common factor that embraces ESP teaching, however, is that the students are considered to be working in a target-discourse community, which requires them to read and write documents, manuals, technical specifications and articles but also to communicate orally with other people in their job. Hence, the command of the four skills is essential for the learners. Equally essential are a sound command of general English and the mastery of domain-specific vocabulary to ensure effective and efficient communication.

The roles of the ESP practitioner

The roles of the ESP practitioner are manifold, ranging from teacher to course and materials designer, collaborator, evaluator and beyond. In the role of course designer, for example, it has to be taken into consideration that the students at this stage are not experts in their domain but, doubtlessly, are able to contribute content to the teaching (Tatzl, 2015). Hence, it is paramount that the ESP practitioner collaborates with the students and the content teachers to draw on their knowledge where such cooperation is feasible (Tatzl, 2015). This leads to a different form of teaching which dissolves the traditional role of the teacher and transfers him or her into the role of a researcher and evaluator that conducts interviews with specialists, analyzes the language that is required in the particular profession and, above all, shows interest in the discipline. Further, the ESP practitioner is required to navigate the dichotomy of exposing students to the target language in an artificial setting such as the classroom whilst simulating a life-like environment to foster motivation at the same time. This interweaving of language, subject-specific content and methodology is one of the great challenges faced by professionals working in this field of education.

An overview of the contributions

The ESP practitioners who contributed papers to this volume represent the diversity of roles and facets pertaining to this vibrant and ever-changing field. The thematic areas addressed encompass learner motivation, assessment, vocabulary, feedback and other relevant aspects, and the content communities involved are equally numerous.

The first paper, by **Natasha Doshi**, describes a work-in-progress study which gives insight into an intercultural approach partly carried out via online collaboration among Austrian and Finnish students in a project management course also aiming at linguistic and personal development.

In her article, **Diane Shooman** describes the haptic-spatial experiences gained by engineering students sent out to the city and nature, which are expressed in self-determined formats in first-person direct discourse in English.

Hans Platzer and **Désirée Verdonk** address the issue of vocabulary size in relation to text comprehension. In particular, they discuss the impact of domain-related terminology in combination with a basic knowledge of 5000 word families from general English on the ability to read and understand medical science journals.

In a similar vein, **Birgit Phillips** and **Petra Kletzenbauer** analyse the acquisition of specialised vocabulary as a central role in an ESP language learning setting and pay special attention to the role of collocations in enhancing students' communicative proficiency. Additionally, they present some practical techniques to move students beyond the *intermediate plateau*.

Karin Richter focusses on the question of how English-medium instruction (EMI) in higher education can have an effect on pronunciation. Student cohorts taught by qualified NSE instructors were analysed to find out to what extent the teaching resulted in a reduced foreign accent of the learners.

Andrea Kulmhofer, **Alia Moser** and **Petra Kletzenbauer** analyse the relation between content, feedback and assessment procedures in academic writing. They postulate a particular focus on assessment and feedback as the main medium to raise the students' awareness that writing is a process that can only develop significantly through constant engagement.

Similarly, **Rufat Osmani** examines whether performance-based assessment directs the students to a higher level of authentic creativity and thinking or not. Additionally, he explores to what extent performance-based assessment results can be used in tailor-made feedback to eliminate previously identified weaknesses.

Slavica Čepon describes a study to determine the causes of speaking anxiety among business English students in higher education in the Balkans. The study is based on in-depth, semi-structured interviews with both teachers and students at various faculties of economics in six neighbouring Balkan countries. The paper explores a range of potential causes for speaking anxiety, from learner-induced and classroom-related factors to skill-specific and culture-imposed influences.

Najma Janjua focusses on the area of pronunciation and communicative confidence, in particular on strategies which can be employed to help minimise L1 interference in Japanese learners of ESP enrolled in a health sciences degree programme. She provides not only the theoretical background that led to the development of an effective pronunciation practice guide (PPG) but also describes how it can be used in the classroom.

Ulrike Poelzl-Hobusch and **Eva Goldgruber** address the challenges in terms of e-didactics of a blended ESP course. They argue that the careful selection of ICT tools is paramount when employing them in interactive public speaking skills sessions. In their paper, they

provide insight into the course format, communication, learning objectives, tasks and the assessment of learning outcomes.

Dietmar Tatzl, Simone Sporer-Fellner, Adrian Millward-Sadler and Annette Casey undertook a quantitative analysis of the English language use and the needs of automotive and aeronautical engineering students during their obligatory work placements. The study provided insight into the most difficult skills, sub-skills and communicative events encountered by the respondents in the sample.

With a different career field but a similar needs portfolio in their article, **Christian Lutsch, Alexander Stockl and Marianne Witzko** address the clear need to develop content-based course materials in English to train students for international job placements in culinary arts and restaurant skills.

Finally, **Nadežda Stojković** looks closely into student motivation in ESP teaching and into online communication. In her paper, she raises the question whether ESP can be seen as an ontological skill or not.

The editors of this proceedings volume hope that it will inspire ESP practitioners in their teaching, in their materials development and during their future careers.

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English for intercultural awareness – A practical approach

Natasha Doshi

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1 Introduction

Internationalisation has become an integral part across university campuses around the globe. Besides the mobility of students, lecturers and administrative staff, the implementation of international projects is often encouraged as another tool to increase the internationalisation level within HEIs and the intercultural profile of graduates (de Wit, 2013 & EUA, 2013). This aspect is both a great contribution and also a challenge for the English classroom, where such projects can be beneficial for all parties involved. This article is a work-in-progress study that aims to explore some possibilities of enriching individual English courses by providing local students the chance to cooperate with either students from another linguistic and cultural background using English as a lingua franca or completing real-life-tasks with the opportunity of receiving direct feedback (Marsh, 2002).

2 Method

When starting co-operation with either colleagues from the same or from a partner university, the first item on the agenda is fully understanding your partner and their curricula and syllabi. One way to get to know how the partner operates is to visit each other's classroom (either in person or virtually), and one simple means for international cooperation is to arrange EU-funded teacher exchanges.

With JAMK University of Applied Sciences a partner was found that shared some common interests. The university is located in Jyväskylä (Central Finland) and has 8,000 students and over 30 degree programmes. However, JAMK has only one compulsory English course for all degree students at undergraduate level, which is rather different from the English curriculum at VUAS (Vorarlberg University of Applied Sciences), where – depending on the degree

programme – students have between 4 to 6 semesters of compulsory English content-based courses (in addition to the many courses using English as the language of instruction).

Local cooperation can also be very beneficial in this context. Due to the fact that most part-time students are not in the position to go on longer exchange periods, a means of integrating this international dimension was investigated and developed. Discussing and exploring ideas with colleagues from other disciplines was an important step in the process of finding a course, in which combining different subject areas with intercultural aspects made sense. The Project Management course seemed ideal for this first activity and thus the lecturers of the two different courses teamed up to develop a joint assignment.

3 Aims and goals

The aims that were hoped to be achieved via a collaboration at both local and international levels, were to increase the intercultural awareness of students on different levels: besides studying the theories of intercultural communication, students should also get a chance to work in intercultural teams and experience the challenges and demands of working with people of a different cultural and linguistic background. Thus, students can learn from each other, experience new teaching and learning styles and reflect on their own behaviour in new situations.

3.1 International collaboration

Since the first pilot project in fall 2012, online projects have been organized on an annual basis between VUAS and JAMK.

In the first project, 18 postgraduate students from VUAS of the elective course “Intercultural Communication” and 18 engineering students (Information and Communication Technology, 2nd year) from JAMK participated. As a pre-assignment, the Austrian students had to research the Finnish culture. For this, they just received an email with a short description of the task and the contact details of the Finnish partners. At this stage, the students had never met their lecturer and had not spent any time in class. In most cases, the VUAS-students sent emails to the JAMK-students with questions about Finnish culture, which then were either discussed via email or Skype. The aim of this activity was to reflect on communication styles

and stereotypes, which was then done together in class when students at VUAS met for their elective course (block-seminar).

The evaluation of this pilot project, which was carried out on both sides in the form of questionnaires and interviews, showed that students were faced with the following challenges:

- Students' levels of language skills were very heterogeneous;
- Students' age levels were different: undergraduate and postgraduate students, full-time and part-time students, mature students;
- Students represented different cultures. At VUAS Austrian, German, French, Indian, US-Austrian, Russian, Czech-German students participated whereas the students at JAMK were Finnish;
- Actual contact with a "stranger" and not being sure of what to say or do when contact has been established caused anxiety;
- Skype conversation was considered stressful and students were shy and nervous,
- Understanding the task and reflecting on its outcome was challenging.

However, the outcomes were mostly positive. The students enjoyed the task and were eager to discuss intercultural issues. Some students mentioned that they had a two-hour talk on Skype. The students became more aware of differences in communication styles and the taught theory was applied in practice, which served as an ideal basis for discussing the topic intercultural communication. They enjoyed the authenticity of the situation and appreciated the opportunity to use the language in a natural context with peers in another country.

There were also negative comments: Skype was regarded as scary and intimidating and many students mentioned that emails would have been easier.

Since this pilot study the involved lecturers – after their reflection and evaluation period – implemented some major changes, such as longer preparation and planning time (due to e.g. different academic calendars), more support and coaching of students (due to differences in working styles, communication styles, time-management, etc.) and more reflection time in class.

The most recent project, which was implemented in fall 2015, focused on stereotypes: the core question was "How do stereotypes influence my behaviour?" This time the teams had more in common as all students were enrolled in an electrical engineering programme (at undergraduate level). Both teams were given a short introduction to the activity and received guidance on how to get in touch with their partner students, how to write an email, how to handle the task, which was announced at the beginning of the course with information on the given time-frame. The teachers offered students continuous support if needed.

This time the outcomes at VUAS were very positive. According to the feedback given in surveys and in direct form in class, the students were motivated to complete the task and showed great interest in Finland and its people. The task was clear, it was a helpful activity, easy to manage and not too time-consuming. There were some concerns such as self-confidence issues, e.g. “Will they know who I am?”, “What shall I write in this first email?”, “I need to check them on Facebook first” or “Can you (teacher) check my work first?”. However, the findings of this online activity were a great basis for the topic of stereotypes and the reflection really helped the students to understand the concept and the influence on their daily behaviour and way of communicating.

The outcomes at JAMK were also rather positive, which was demonstrated in their written evaluation. The Finnish students were more concerned than the Austrian students about receiving an answer or not understanding their Austrian partner. The timetable was critical since the Finnish students’ course started much earlier and the activity was interrupted by their fall break, which led to some misunderstanding and frustration on both sides. But, due to the reflection in class, this was actually another aspect of intercultural awareness in practice as it helped them to better understand the challenges of international teams, which can arise on operational level.

3.2 Local cooperation

The second approach was based on collaboration of content-courses within the same university: the first pilot-project took place in fall 2013, and was a joint activity between the compulsory courses Project Management (3 ECTS) and Intercultural Awareness (2 ECTS). The students involved were in their third semester of their part-time studies Industrial Engineering and the assignment was to produce an educational movie on a given topic of Project Management. In order to make this already challenging task even more demanding, the groups had to integrate intercultural issues in their movie projects.

In the course “Intercultural Awareness” we discussed some of the main theories of intercultural communication such as Bennett’s developmental model of intercultural sensitivity or Pederson’s model of culture shock. In some seminars, we focused on e.g. cultural diversity, communication styles, intercultural adaptation, verbal and non-verbal communication as well as the studies of Hall, Hofstede and Trompenaars. This helped them to

identify themes, which they could use for their story/plot development. Due to the fact that certain elements needed to be included (assignment Project Management), I coached them mostly in the field of screen-writing (character and plot development, creating dialogues, etc.). The topics that we had discussed on a more theoretical basis (e.g. stereotypes, language barriers, cultural misunderstandings, etc.) were then put into practice and experienced within the groups.

One group developed the story of an international team of engineers working on the technical development of a F1 racing car. The characters, which were jointly developed, were based not only on some common stereotypes, but also on personal experience of the team-members. This led to interesting reflections within the seminar and helped them to understand the topic of stereotypes on a different level. They also hired some international actors (e.g. a male researcher from India and a marketing professional from England), which again led to interesting situations such as cultural misunderstandings, moments of (cultural) frustration and exhaustion as well as moments of feeling added-value and motivation.

Another group focused their project management task on a wedding planner, who was faced with an intercultural couple who had problems finding the right wedding style for both sets of parents. While the Austrian parents wanted a typical countryside wedding in the Bregenzer Wald, the Indian parents insisted on a typical Indian wedding (min. 400 guests) in Jaipur. The script included many intercultural aspects such as differences in communication styles (e.g. direct versus indirect line of argumentation), body language, facial expressions, intonation, etc. The group interviewed Indians living in Austria and also conducted an online interview with a couple based in India. With these steps they did not only create an interesting and entertaining story, but they also experienced some of the intercultural problems themselves.

Half of my seminars changed into coaching units, as I tried to give as much specific input as the groups needed. I realized that they also had the need to discuss and reflect upon the experience that they made during the different phases of their project. Discussing the issues on a theoretical level during the first part of the course helped them to get started with the task, but they needed the parallel input and coaching elements while creating the scripts and producing the movies.

All actors as well as the narrators of the movies used English (obviously different varieties and different accents), which again illustrated some of the points discussed earlier in the seminar and made the groups reflect much deeper on this issue. Compared to other

Intercultural Awareness courses that I have taught in the past, which did not have this practical approach, I feel that both the level of awareness and the level of interest in the topic was in general much higher.

In addition to the movie production, they also had to promote their movies and thus experience some copywriting. Their texts (e.g. posters, blog entries, press releases, etc.) were written with more enthusiasm and more commitment than previous written assignments as shown by both the oral as well as the written course feedback.

Since this pilot-project the following changes have taken place at VUAS. Due to the fact that the majority of part-time students is not able to go on longer exchanges, a scheme for short-term study fields was developed and thus the university organizes short field trips (both to India and Russia). During these trips – besides attending lectures and visiting companies - students have to work on their own projects (together with local students), which should help them to become more aware of the importance of intercultural skills.

4 Conclusions

The collaboration between local and international colleagues continues this spring with another project and new themes/topics are constantly explored. Feedback has shown that these joint activities are worth the effort and enrich the learning environment of the involved students and thus are very beneficial for the involved departments and institutions.

The course evaluations as well as individual statements from students show that using such projects is a great opportunity to improve the learning environment and change the dynamics of existing courses. In general, one can say that students were more motivated to complete the given tasks, which was mostly due to the interactive part that enabled new possibilities for authentic materials and assignments. From the perspective of the lecturers, it seems that the students profited not only on linguistic and content-specific aspects but also on social aspects, which is another reason to continue such projects in the future and increase the learning opportunities in this direction for even more student groups.

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“Hands on!” Engineers reporting in English on haptic-spatial experiences

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Introduction

What are the consequences of excluding physical participation in learning and in design processes by replacing books and drawing pads with electronic devices? What happens when we bring the body with its entire sensory and perceptive apparatus back into those processes? This paper describes the motivation, methods and outcomes for a course in which engineering students are sent out into the city and into nature to observe, record, reflect on, process and present their haptic-spatial experiences in English. The focus of the course is observation and discovery, the subject being the students' own sensory experiences and perceptions. The experiences are processed and expressed in self-determined formats in first-person direct discourse in a foreign language. The course is intended to enrich the students' overall study experience through both the relevance to and differences from the content, routines and discourses of their other work. The paper concludes with a reflection on the mutual impact of haptic-spatial perception and of language.

Excluding the body from creating products for the body

Today, our physical engagement with our environment is largely mediated through car, subway, bus or tram windows, and TV or computer screens, with focused visual perception dominating over physical, haptic perception.

Technology helps us make enormous strides in advancing human well-being, and creating or optimizing functional spaces and devices. Yet the most important tool we have is our conscious observation of our own experiences and physical-haptic, acoustic engagement with space.

What price do we pay if we exclude our bodies and senses – our whole selves – from the process of designing spaces and devices for the human body?

In a landmark treatise called *The Eyes of the Skin: Architecture and the Senses*, Finnish architect Juhani Pallasmaa (2012) explores what happens to us when we isolate ourselves from haptic contact with our surroundings, or when our surroundings refuse to speak to us haptically.

“Computer imaging tends to flatten our magnificent, multi-sensory, simultaneous and synchronic capacities of imagination by turning the design process into a passive visual manipulation, a retinal journey. The computer creates a distance between the maker and the object, whereas drawing by hand as well as working with models put the designer in a haptic contact with the object, or space. ... Creative work calls for a bodily and mental identification, empathy and compassion.” (p.14)

As Pallasmaa (2012) implies with the title *The Eyes of the Skin*, “seeing” is not a function of central vision alone; our bodies are involved in the act of and reaction to visual perception: “The very essence of the lived experience is molded by unconscious haptic imagery and unfocused peripheral vision.” (p.14)

Central vs. peripheral vision: Mona Lisa's smile

Nobel neuroscientist Eric Kandel (2012) illustrates the difference in function of central or so-called foveal vision and peripheral vision by explaining that the ambiguous emotionality of Leonardo Da Vinci's *Mona Lisa* and her smile is invisible to our detail-focused foveal vision, and perceptible only through the holistic analysis of our peripheral cone vision.

This scientific explanation may help to make sense of Pallasmaa's critique of spaces shaped exclusively by the eye for the eye:

“One of the reasons why the architectural and urban settings of our time tend to make us outsiders ... is in their poverty in the field of peripheral vision. *Unconscious peripheral perception transforms retinal Gestalt into spatial and bodily experiences*. Peripheral vision integrates us with space, while focused vision pushes us out of the space making us mere spectators.” (p.15)

When central vision takes a break

We cannot grasp how focused vision works until we release it from duty and see what happens to us while it is on a break, and observe how it acts when it comes back. For me it was an accidental discovery that preceded my encounter with Pallasmaa's work by a decade.

Imagine this: You are watching a wild, densely packed William Forsythe choreography. You exhaust yourself, chasing hopelessly after a multitude of details while losing your grasp of the whole. You then rest your eyes on a canvas above the heads of the dancers. All of a sudden, you feel the dancers' movement as if it were something happening to you. You are watching nothing, and seeing everything. You perceive a bow frenetically drawn across a cello through the side of your neck. The sensation of two people vigorously embracing enters you through your crotch. Everything and everybody turns into your body, and your entire body turns into an eye. You can "see" with your skin.

On my way home that night, I called a biologist friend who keeps late hours. He explained that it was my peripheral nervous system kicking in, which happens when you relax the hold of your active gaze, i.e. your central vision. Since then, I've been taking my peripheral vision dancing and walking.

When you walk down a street, and you are looking straight ahead or around on a plane of vision within the scene, you are the mover moving past the buildings, and you are separate from them and from other people.

When, however, you lift your gaze above the scene, straight ahead but above the heads of people and buildings, the buildings and the people move past you, and you are enmeshed in and part of their movement, like water rushing, and you a moving divide in a strong current of movement.

When you lower your gaze again, your eyes are the hands that push the buildings and people away and hold them at arm's length. You regain a sense of autonomy, of separation.

If you gaze ahead again and up at the sky as you are walking, your eye searches in vain for a foothold, for something to grasp. You are no longer on the same plane as what lies before you; you are standing on the lower end of a seesaw. Your eyes are the hands and feet that keep you steady and keep things at a distance. With focused vision, you are the mover; with peripheral vision, you are being moved.

This is probably what Pallasmaa (2012) is talking about when he says:

“The steadily growing hegemonic claim of the eye seems to go hand in hand with the development of Western self-consciousness and the increasing separation of the self from the world. Seeing separates us from the world, whereas the other senses unite us with it. Focused vision confronts us with the world, whereas peripheral vision envelops us in the flesh of the world.” (p.14)

Perceiving words as objects and texts as geographical terrain

Cognitive research indicates that language acquisition and reading comprehension also involve physicality. As *Scientific American* associate editor Ferris Jabr (2013) explains, we experience letters and words as objects, and books as terrain to be mapped and traversed. Writing by hand and making one’s way through a physical book yield significantly better learning and comprehension than typing words or reading longer texts on electronic devices.

Putting the body back into the learning and design processes

If we increasingly exclude our bodies, our senses, our whole selves from participating in the processes of learning, comprehending, and creating, we apparently decrease quality and efficiency. It is clear why engineers need to also take themselves out of the lab, away from their computer screens, and set themselves loose in the city and in nature to reconnect with their environment and their senses.

“Hands on!”

The course “Hands On! Haptic-Spatial Exercises” helps engineering students leverage their perceptual skills as they conduct haptic-spatial activities in everyday settings, observing, recording, reflecting on, processing and presenting their experiences orally and in writing. The 18-hour course was piloted in WS 2015 with 14 first-semester Biomedical Engineering master students. Reflecting and writing in first-person direct discourse in English frees students from the discourses of their first languages and disciplines to develop their own voices, giving them confidence, boldness, and a sense of freedom in expressing themselves and their unique observations.

The activities

The students were asked to perform a series of activities that include looking through a shut and an open window, raising and lowering their gaze while walking down a street, and comparing spaces they enjoy with spaces they hate being in. They were asked to take in the symphony of the city and of nature with eyes open and shut. They also compared their experiences of three spaces with similar purposes, and three spaces built for different purposes. They were invited to record their observations and shape their 10-minute oral presentations and final written documentation in the media and form of their choosing and design.

14 ways of looking through a window

The students were asked to turn their attention both outward and inward, to sound the depths of their own reactions, to write and talk about themselves. The outcome was 14 fresh new views of everyday experiences. The presentations ranged from an “I like this; I don’t like that” sequence of seemingly unconnected images and descriptions of spaces, without the speaker perceiving any relation among them or being able to say why one elicited negative and the other positive feelings, to sophisticated associative analysis and expression.

Remarkably, regardless of the level of the students’ own awareness, each of their works had an identifiable character, a personal note, tone, musicality, “colour”, “brush stroke” and wholeness that characterizes literary, visual, essayistic works of art, or the inner rhymes of a plausible new scientific hypothesis. Presentations that appeared on the surface to be a linear sequence of disjointed fragments were in fact intuitively of a piece. There is a striking physicality to the metaphorical language that pervades all of the work, anchoring our symbolic expressions in experiences of the body. A handful of examples from the treasure trove of some 150-odd pages are provided here with the kind permission of the students.

Martina K.’s paper begins with a quote from a set of instructions for the exercises. In the section that follows, “Closed and Open Window”, a shift in voice is signalled by the word “I”. The anonymous imperative voice preceding the “I” retroactively intones instructions as if from behind a pane of glass. The “I” reaches through acoustic space to “you”, the implicit addressee, as if a window had been flung wide open.

Vincent S.’s language is explicitly haptic: “Looking outside, I feel like a spectator. I’m not in direct touch with what I see. It seems like I’m observing the scene as a static whole, similar to

a painting or photograph. ... When I open the window it feels like I'm taking the picture ... out of its frame. ... What actually was a sight when I looked at it with the window closed has now become a view with perspective. Furthermore, the noise invading my room through the open window takes me outside, right into the scene."

Ratnesh D. sees windows in a different light: "As I wake up in the morning and look outside the window, I see trace of sun light coming into my room with this it brings ray of hope and motivates me to do something Productive (sic). However when it becomes dark and I come home and observe the window it acts as a mirror because outside its (sic) dark. Now when I look into the mirror and question myself was my day as anticipated, no not as expected!"

I began my work with a group of biomedical engineers, who then doubled into philosophers, essayists, artists and poets. Science and art appear to meet at the nexus of self and the world. I leave the last words to Selena M.: "Maybe that's the secret: to appreciate the same moment in different ways. If so, a space, room or place has not one but many faces. How beautiful that is! But I do admit that the same concept makes me feel very small, and I pity the fact that we have so little time on this wonderful Earth."

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Reading medical science journals: The role of vocabulary size and background knowledge

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1 Introduction

1.1 Background

This pilot study discusses reading comprehension in medical science journals. The aim is to disentangle the impact of vocabulary size and background knowledge on reading papers in radiology technology. In this context, Milton (2013, p. 66) suggests that readers need to know 95% of the running words of a text for adequate comprehension, with Nation (2006, p. 61) opting for 98% coverage. However, these figures have been based mainly on fiction and news articles, while specialist academic genres tend to be ignored in studies of vocabulary size. On the other hand, Clapham's (1996) study is a seminal contribution examining the impact of background knowledge on reading. The resulting picture is quite intricate. Thus, test takers with poor language skills are typically unable to exploit their background knowledge. By contrast, the strongest effects were found among test takers with intermediate language competence, and effects proved to be stronger the more specific the test, i.e. the more background knowledge was required.

There are, however, several points where such studies fall short. First of all, no previous research has attempted to describe the relationship between background knowledge and vocabulary size even though both have - individually - been established as key aspects in reading comprehension. Secondly, the authenticity of reading tests typically used in these studies is doubtful. This is particularly true if academic reading tests are meant to generalise to target language use (TLU), which is characterised by reading full-length journal articles in a non-timed context and with the availability of reference sources. By contrast, tests of academic reading are timed, tend to cover brief extracts or introductory texts and are often administered without access to references materials. It is therefore doubtful if they can provide a valid assessment of test takers' reading in real-life TLU. For this reason, the present

paper is based on a test whose administration attempts to replicate the characteristics of the TLU situation outlined above.

1.2 Aim

The purpose of this study is

- to determine the vocabulary profile of journal articles in one area of the medical sciences, viz. radiology, and
- to describe the impact of vocabulary size and background knowledge on the comprehension of such papers.

2 Method

A sample of 28 students of radiology technology at *Fachhochschule Wiener Neustadt* - representing the intake for 2012 - were subjected to the test instruments outlined as follows. First, the Vocabulary Size Test (VST) was used to measure students' vocabulary. Secondly, a test of reading comprehension was developed covering several sub-skills of reading, viz. comprehension of (i) gist, (ii) detail, (iii) cohesion, (iv) hedging and (v) word-formation patterns. This range should ensure acceptable content- and construct validity. Furthermore, test conditions which closely reflect TLU should also support construct validity. Hence, students were asked to read at home a full-length journal article, i.e. Teh, B.; Woo, S.; Butler, E. (1999). Intensity modulated radiation therapy (IMRT): A new promising technology in radiation oncology. *The Oncologist*, 1999(4), 433-442. While studying this paper at their leisure, they will have used various reference materials, and subsequently they were subjected to a reading test during class time. The specific nature of this reading assessment hopefully supports generalizability of the scores to the TLU situation, and thus construct validity.

By contrast, concurrent validity can be demonstrated through sufficiently high correlations with tests covering similar or related constructs. In this context, "studies have found strong correlations between [...] vocabulary size [...] and reading comprehension" (Milton, 2013, p. 67). Scores from the present reading test and the VST only generated a moderate - but significant - correlation of $r=0.38$ ($p<0.05$). However, this should not be surprising as our sample is very homogeneous, leading to depressed correlations. Moreover, test takers were able to access reference materials, thus reducing the impact of vocabulary size. Hence, a

somewhat lower correlation between vocabulary and reading should not undermine concurrent validity.

3 Results and discussion

3.1 Vocabulary size and coverage

Based on the results of the VST, the mean vocabulary size among the sample was 7432 words (SD 1147.63), with a minimum of 5300 and a maximum of 10,200 words. Even at the lower end, these are respectable figures, given that Milton (2013, p. 65) suggests that an average of 4500-5000 words is a sufficient lexical prerequisite for reaching C2 competence. However, at this point it is still unclear what this vocabulary size means for the necessary coverage of 95%-98% of the running words of a text, which ensures adequate comprehension (Milton, 2013; Nation, 2006).

In order to address this issue, the vocabulary profile of the input text was analysed using Tom Cobb's lexical profiler (<http://www.lextutor.ca/vp/>). All onomastic material (i.e. proper nouns) was assumed to be known to readers, and hence knowledge of 5000 words meant being familiar with 87% of the input text, with 7500 words providing 89% coverage, and 10,000 words generating 91% coverage. Hence, not even the test taker with the largest vocabulary would have reached the 95% threshold necessary for adequate comprehension. Nonetheless, no test taker reported major comprehension problems concerning the input text, and the reading test did not indicate any difficulties either, generating a mean score of 80%.

Two factors may be responsible for this seeming contradiction. First, giving test takers the opportunity to read the text at leisure using reference materials such as dictionaries will have enabled them to understand the paper despite their vocabulary not achieving the necessary 95% coverage. Secondly, a large proportion of the input text consists of technical terminology, which the students probably knew because of the specialist status of this layer of the vocabulary. Either option will have increased readers' coverage of the text and thus facilitated comprehension.

It is, in fact, possible to find empirical evidence for the second option. Based on the *NCRP Composite Glossary* of the National Council on Radiation and Protection Measurements (<http://ncrponline.org>), we identified all technical vocabulary occurring in the input text, covering the areas of radiology, anatomy and medical conditions. These words were recoded

as high frequency vocabulary, thus assuming that our readers were familiar with it. The assumption that test takers know this specialist lexicon changes the coverage of the text drastically: hence, knowledge of 5000 words plus specialist terminology results in 94% coverage, with 7500 words generating 95% coverage, and 10,000 words 96% coverage. That means test takers' average vocabulary size of 7500 words of general English plus the necessary specialist vocabulary boosts coverage to the 95% threshold required for adequate understanding. It is, therefore, quite plausible for specialist technical vocabulary - and by extension background knowledge - to have a major impact on reading comprehension, while extended knowledge of general vocabulary may be taking a back seat. This conjecture is tested in the next section on the basis of a regression analysis.

3.2 Regression analysis

Multiple regression allows us to predict the impact of two independent variables, i.e. vocabulary size and background knowledge, on reading comprehension. As discussed above, vocabulary size was based on students' scores on the VST and reading skills were measured with our reading test. As a third variable, students' mean grades in their subject area were used as a proxy for background knowledge in radiology technology. With two independent variables involved, we need to ascertain that the sample is sufficiently large, as a minimum of 15 cases is required per variable, hence 30 subjects in total. This means that our sample size of $n=28$ is marginally acceptable for a multiple regression procedure.

The analysis reveals that both variables together (i.e. vocabulary size and background knowledge) explain 36.8% of the reading scores, $F(2, 28)=6.979$, $p<0.005$. That is, both vocabulary size and background knowledge *together* have a statistically significant impact on reading skills. However, only background knowledge makes a statistically significant *unique* contribution to reading scores ($\beta=0.538$, $p<0.01$), while vocabulary size was not statistically significant ($\beta=0.121$, $p>0.05$). In other words, the regression analysis confirms that background knowledge (including knowledge of technical terms) is a more relevant component in the reading of journal articles than mere vocabulary size. However, this conclusion is based on subjects who have an average vocabulary of ca. 7500 words. In this context, it should also be remembered that a substantial increase in vocabulary size from 5000 to 7500 words resulted in an increase of coverage by merely 2 percentage points. Given that these low-frequency words have only an incremental influence on coverage, it actually stands

to reason that differences in vocabulary size at this level are less relevant than background knowledge.

3.3 Limitations

As this is a pilot study, the following discussion of some limitations will help formulate relevant modifications for a follow-up study. One point of concern is the reliability of the reading test, with a Cronbach's alpha of 0.662, where 0.80 is typically required. The Spearman-Brown Prophecy Formula enables the calculation of the factor by which a test needs to be lengthened to achieve a desired reliability level. Based on the actual alpha of 0.662 and a desired one of 0.80, the lengthening factor is calculated as follows: $(0.80 \times (1 - 0.662)) \div (0.662 \times (1 - 0.80)) = 2.04$. The current reading test would, consequently, need to be increased by a factor of 2, i.e. doubled from 15 to 30 items, to achieve satisfactory reliability. In addition, the small sample size ($n=28$) is another area of concern, especially as the contribution of vocabulary size to the reading score might well become significant with a larger sample. Consequently, an upcoming full-scale study requires the development of an additional 15 items to increase reliability as well as its subsequent administration among two intakes of radiology technology students to double the sample size to 50-60 subjects.

Finally, the analysis involved only one input text, which we assumed to be representative based on expert opinion only. For a follow-up study, a corpus of further journal articles has already been compiled. The vocabulary profiles of these papers will be subjected to a statistical analysis comparing the vocabulary profile of the input text with the profiles of the corpus. If the profiles can be shown not to differ significantly, this confirms that the input text is indeed representative of a wider pool of papers.

Conclusions

To summarise briefly, radiology technology students achieved an average vocabulary size of a respectable 7500 words, which accounts for 89% of the running words of a relevant journal article. This is, in theory, well below the 95% threshold ensuring adequate comprehension. On the other hand, once knowledge of the technical terminology occurring in the paper was assumed, coverage rose to 94%. Furthermore, it was possible to corroborate the relevance of such specialist background knowledge through a multiple regression analysis. This procedure

confirmed the impact of background knowledge on reading comprehension, while vocabulary size did not appear to be a significant factor.

These findings have interesting repercussions for teaching English for Academic Medical Purposes. First of all, a focus on vocabulary growth of General English words up to the 5000 or 7500 word levels is probably useful. However, it needs to be remembered that increases of 2500 words only resulted in an increased coverage of about 2 percentage points, i.e. focusing on vocabulary growth beyond the 5000 or 7500 levels seems hardly effective. By contrast, a consistent focus on technical terminology in the relevant specialist area substantially influenced text coverage, just as background knowledge in general impacted positively on reading comprehension. This puts language instructors in a quandary: while technical terminology can indeed be assumed to be the responsibility of language instruction, fostering background knowledge is clearly in the purview of subject specialists. Consequently - and as so often in ESP - some form of interdisciplinary cooperation may be required in these contexts.

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From “nervous system” to “operating system”: Fostering collocational competence in ESP settings

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1 Introduction: The notion of collocations

Originally, much of second-language acquisition research focused on the assimilation of grammar and phonology, while vocabulary development was overlooked and treated as the “Cinderella of foreign language learning” (Beheydt, 1987, p. 55). Since the 1970s, vocabulary development has moved into a more central position of interest, and it has been argued (cf. Lewis 1993) that choosing the right words in certain situations is more important than choosing the right grammatical structure, thus putting lexis at “the core or heart of language” (Lewis, 1993, p. 89).

The acquisition of an extensive, specialized vocabulary is particularly important in the field of ESP at the tertiary level. ESP pedagogy places the student’s needs at center stage, and the main goal is to enable learners to master a sizeable portion of the specialized vocabulary needed to communicate effectively in their particular field of study. Since language is phrasal in its nature, this specialized vocabulary tends to occur in multi-word units, i.e. lexical items that are composed of more than one word. One such type of multi-word unit is the collocation, a term introduced by J.R. Firth in the 1950s.

There is no unified consensus on how to define the term collocation in lexicology, and addressing all of them would go beyond the scope of this article, but a distinction can be made between two main conceptual approaches: the frequency-based approach and the phraseological approach. The frequency-based approach identifies collocations as two (or more) units of words or lexical items that co-occur “with a probability greater than chance” (Halliday, 1966, p.156), while the phraseological approach follows a syntactic and semantic tradition that identifies collocations as word combinations with various degrees of fixedness, regardless of their frequency.

A number of researchers have provided a definition combining the two aforementioned approaches (Nation, 2001; Laufer & Waldmann, 2011; Wolter & Gyllenstadt, 2011). Nation (2001), for example, defines collocations as “a group of words that belong together, either because they commonly occur together [...] or because the meaning of the group is not obvious from the meaning of the parts” (p. 317). This means that for the language learner to truly know a lexical item, the relationship it forms with other words in a certain situational context must also be understood (e.g. catch a cold, catch someone’s attention), or as Firth (1957, p. 179) famously put it “You shall know a word by the company it keeps”. In other words, knowing the meaning of individual components of a collocation is not the same as knowing the collocation, and even the most advanced learners often have difficulties with choosing the correct verb, such as “make” and “do” (e.g. to do homework, not to make homework). The definition of collocation adopted in this article, which is in line with Nation (2001) and Laufer & Waldmann (2011) and Wolter & Gyllenstadt (2011), combines the two aforementioned approaches and views collocations as multi-word units that occur frequently with limited room for substitution. However, not all word combinations that form meaningful chunks are considered collocations, and we differentiate collocations from pure idioms, such as *to kick the bucket*, or free word combinations, such as *to buy a car*.

2 The importance of collocations in ESP

A mastery of a specific professional language, in our case from the fields of medicine and IT, is viewed as an essential asset in today’s professional world, and most institutes of tertiary education have been moving away from “General English Courses” towards ESP courses (Fortanet-Gómez & Räisänen, 2008).

Achieving lexical competence in specific contexts involves the daunting task of achieving collocational competence, i.e. having “a sufficiently large and significant phrasal mental lexicon” (Lewis, 2000, p. 177) that is readily available for receptive and productive language use. In fact, it has been argued that collocation knowledge, especially in an ESP setting, is an indicator of communicative competence and that it can push learners’ language proficiency beyond the intermediate plateau to a native-like advanced level (Lewis, 2000). As collocations are omnipresent in the English language, Nation (2001) goes further and argues that the stored sequences of words are the basis of language learning, knowledge and use (p. 321). Fluent speakers of English automatically use collocations as pre-packaged building blocks that tell the listener about what can follow from what has preceded. Non-native

speakers often lack this automation and native-like selection of words and are not aware of lexical restrictions because collocations are often arbitrary and unpredictable, which means non-native speakers have to reconstruct language every time. For example, the verb “*to perform*” collocates with *operation, experiment, analysis, task*, but does not work with *interview*.

3 Why collocations are problematic with non-native speakers

While the importance of developing collocational competence has been increasingly recognized by researchers in the past two decades, most intermediate learners of English lack these skills and therefore often fail to reach the fluency of advanced users of English. Collocational systems in scientific terminology are particularly complex and generally represent a significant challenge to non-native speakers of English, even at very advanced levels of language proficiency. Studies have shown that even students at more advanced levels of proficiency tend to produce fewer collocations than native speakers in both oral and written tasks (Laufer & Waldmann, 2011). There are several explanations for learners’ difficulties in the production and processing of collocations and the resulting shortcomings in language reception and production.

3.1 Lack of awareness

One of the main reasons for poor collocation *knowledge* is that most learners are not aware of the importance of collocations. They lack the language sensitivity and metacognitive skills to identify important collocations in texts or to use them actively themselves. Vocabulary learning is still often equated with memorizing long lists of decontextualized vocabulary consisting of single lexical items rather than chunks, and many teachers still prefer classical vocabulary teaching techniques (e.g. mother tongue translation, definition, synonyms and antonyms) and fail to focus on collocations and phrasal elements. Thus, many students have not learned which words collocate with others and therefore cannot recognize collocations as meaningful phrases.

3.2 Open-choice principle

Instead of operating on the idiom principle, learners have a tendency to function on the open-choice principle by combining words that do not always go together, thereby falling into the trap of “deceptive incompatibility” (Laufer & Waldmann, 2011, p. 44). Many students are not aware of collocational restrictions and assume, for example, that if one can earn money and respect, one can also earn experience, which seems possible from a semantic point of view, although collocationally they are not compatible. Thus, knowledge of collocations is not the same as knowing their individual components, and although learners are often familiar with the meaning of the individual components of a collocation, they have difficulty in making the correct combinations, which ultimately results in simplified and trivial expressions.

3.3 Literal translation

Many collocations are semantically transparent, and while students may understand the meaning of individual components of the collocation, they fail to produce the same collocation correctly independently (Nation, 2001). This results in “foreign” utterances caused by wrong direct translations from one’s mother tongue when students cannot think of the right collocation. For example, German-speaking learners of English can easily understand the collocation “to have a baby”, but when applying it independently, they often say “to get a baby” instead and fail to understand the lack of translational equivalence.

3.4 Retrieval

Students’ ability to retrieve the correct collocation from memory is impaired when they have not stored them as such in their memory. Moreover, their receptive language skills often differ from their productive skills. When students comprehend a collocation, they wrongly assume that they will be able to use the collocation in language production as well. As a consequence, this insufficient collocational competence results in the production of unnecessarily long phrases, which increases the risk of producing errors. For example, students who do not know the collocation “life expectancy” have to come up with something along the lines of “the number of years a person is expected to live”, i.e. a much longer phrase that increases the likelihood of producing errors.

4 Teaching collocations and best practice examples

As we have seen in the previous section, if students want to leave the intermediate plateau and achieve native-like fluency, collocational competence is indispensable. To this end, well-planned, teacher-led guidance is essential to enhance students' language sensitivity and promote deep-level processing of collocations. This task is certainly daunting for many teachers, and they may neglect the explicit teaching of collocations for a variety of reasons. They may be subject to limited class time, have curriculum constraints or simply do not have appropriate material to teach collocations. Or they may simply be overwhelmed by the sheer number of collocations in the English language. The Oxford Dictionary for Students of English (2009) includes about 250,000 word combinations, and that list is far from complete. Even the most determined teacher will only be able to cover a small fraction of them. With curricular constraints and limited class time, teachers have to carefully select the collocations they want to include in their course. The most commonly applied criterion for collocation selection in class is the frequency of use in a specific field. The acquisition of the most frequent collocations also increases the students' motivation, since they are learning the terms most relevant in their specific fields of study.

Teachers should draw students' attention even to seemingly "easy" collocations, such as "to keep fit" or "to update software", and point out the words with which they frequently occur. Students' tendency to overlook chunks means they often do not see the technicality of a collocation. For example, a collocation such as "infectious disease" may not appear technical at first sight, assuming the learner understands the individual words. However, left to their own devices, learners are likely to produce "infectious sickness" or "infectious illness", as the three words are interchangeable in many non-collocational contexts.

In order to support students, the following learning tasks may be useful for teaching collocations in various ESP settings. These techniques can be applied in a variety of fields to help improve language proficiency by fostering enhanced skills in vocabulary acquisition and retention.

4.1 Grouping collocates in semantic groups

In this activity, learners are asked to group collocations, such as *a gnawing pain, a stabbing pain, a tingling sensation*, in one of the following three groups: *mild, severe, very severe*. Learners are required to examine the exact definition of each collocation.

4.2 Procedure reconstruction

Before watching a video describing a specific procedure (*e.g. coronary angiogram procedure*), the teacher pre-teaches the most important collocations and writes them on the board (*e.g. X-ray table, to fasten safety straps, to give a sedative, blood pressure cuff, blood clots, to insert the catheter, to thread the catheter, etc.*). After watching the video, students are asked to re-construct the procedure in pairs.

4.3 Matching collocations

Learners are given a set of sentence halves they have to match to make sense.

- | | |
|---|---|
| 1) <i>After the treatment was explained to him, the patient signed the informed</i> | <i>a) impaired body functions.</i> |
| 2) <i>The patient requires attention soon or risks seriously</i> | <i>b) consent form and he was then given anti-tetanus immunoglobulin.</i> |

Other activities may include gap-filling exercises, error correction, brainstorming collocates, or finding the odd one out in a list of words.

5 Conclusions

One of the greatest lexical challenges for ESP learners is the acquisition of collocations. To this end, it is essential for teachers to develop effective teaching strategies to raise student's awareness of the importance of collocations. Language instruction should focus on equipping students with the skills necessary to learn collocations both inside and outside the classroom. In addition to raising students' awareness, the explicit teaching of collocations should also focus on providing multiple encounters with target collocations to consolidate collocational competence and increase overall language proficiency.

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Exploring English-medium instruction and pronunciation: What's in it for the students?

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1 Introduction

Triggered by socio-economic, political and educational developments, the 21st century has witnessed the rise of English-medium instruction (EMI) in higher education. This call for EMI appears to be rooted in the common belief that language learning occurs incidentally when content classes are taught in English. However, to date tertiary education has seen little empirical evidence that this is in fact the case. Most notably the field of pronunciation learning appears to be characterized by a dearth of longitudinal data to confirm or reject the view that EMI can have a favourable effect on the learners. This lack of reliable information is further compounded by the notion of the Critical Period Hypothesis according to which the ideal time window for the successful mastery of a foreign language is already closed for adult learners as biological constraints in the aging brain are said to hamper progress. Taking these two aspects together, the question arises as to whether adult students enrolled in EMI in higher education can expect to see improvement in pronunciation as a result of their participation in such a programme.

In this paper I will present some of the major findings of my PhD thesis (Richter, 2015) which explores the development of the students' pronunciation skills in an EMI programme at an Austrian university of applied sciences. This research was largely prompted by my professional interest in pronunciation learning on the one hand and my contribution to the advancement of an EMI programme on the other hand. Lecturing Practical Phonetics at the University of Vienna, I have a keen interest in students' spoken language development. However, I also teach Business English at FHWien of WKW (FHWien der Wirtschaftskammer Wien), a private but state-subsidized university of applied sciences in Vienna, which offers the ideal context to study an EMI setting where no explicit pronunciation is taught.

2 Context of the case study

FHWien of WKW launched its first degree programme in 1994 and since then has established seven institutes focussing on management and communication. Today, a range of 17 bachelor and master degree programmes covering a broad spectrum of specialisations from Real Estate Management to Entrepreneurship and Marketing and Sales are offered.

Regarding student numbers, the largest of the degree courses is the BA programme Entrepreneurship, which provides a three-year general education in business administration. What clearly sets this programme apart from others, however, is the fact that one cohort comprising approximately 30 students each academic year is run as a “bilingual programme”. This means that in one of five parallel groups up to 50% of the content courses (mainly in the areas of Marketing and HR Management) are held in English. What is even more, the majority of the lecturers teaching these content classes are native speakers of English who either fly in from one of the partner universities or are expatriates living and working in Vienna. This has to be seen in striking contrast to the majority of EMI courses taught at European HE institutions where the teachers of the content courses are predominantly L2 speakers of the language (cf. Tatzl, 2011). It is important to note that in the English-medium classes at FHWien of WKW, the focus is above all on content knowledge with English being the medium through which business concepts are conveyed and discussed.

What spurred my interest in this context, however, was how these L1 teachers’ accents impacted on the students’ pronunciation skills. Above all, the questions I asked myself were: Do the students simply pick up the teacher’s accent without consciously engaging in the matter or is it irrelevant what accent (foreign or native) the teacher speaks as adult learners at this level have already passed the critical period for acquiring a native-like accent?

3 Research questions and methodology

To explore potential effects EMI may have on the students’ pronunciation skills in general and their foreign (i.e. Austrian) accent in particular, two cohorts from the degree programme Entrepreneurship were tracked over a period of roughly three years, that is the entire duration of their BA studies. These two parallel groups are on the one hand the EMI group (focus group) from the bilingual programme ($N = 25$) and on the other hand the ESP group (control group) from the regular (German) programme ($N = 30$). Both groups have a fairly similar profile in terms of size, age range, L1, or L2 proficiency. The majority of the students started

to learn English as a foreign language in primary school around the same age (8 years), which means that they all share a similar age of onset of L2 learning (AOL). The curriculum is largely the same for both groups, yet the EMI group has – in addition to the regular ESP courses – up to 50% of their content classes taught in English mostly by L1 speakers of the language. Thus, the following main and over-arching research question was addressed in this project:

- How does English-medium instruction affect the pronunciation of Austrian business students at tertiary level over a period of three years?

In pursuit of a profound approach to the investigation of the impact of EMI on the students' pronunciation skills, the following sub-questions were formulated:

RQ 1) How does the degree of foreign accent develop longitudinally in the focus (EMI) group as opposed to the control group?

RQ 2) Which individual factors may have contributed to the changes in the students' pronunciation observed in the two groups?

In order to track the students' pronunciation development, they were recorded twice, once at the beginning of their studies (T1 = 2011) and then again at the end (T2 = 2014) reading the standard International Phonetic Association (IPA) text “The North Wind and the Sun” and narrating a Gary Larson cartoon. The reading task was included as it facilitates a controlled coverage of the phonemic inventory and prevents the use of avoidance strategies for potentially problematic sounds, whereas the quasi-spontaneous picture story allows for a more natural type of speech.

Each sound file was subsequently rated by seven carefully selected pronunciation experts from the University of Vienna. As Figure 1 illustrates, the listeners used an electronic rating tool with a visual analogue scale ranging from “very strong foreign accent” (0) to “no foreign accent” (10):

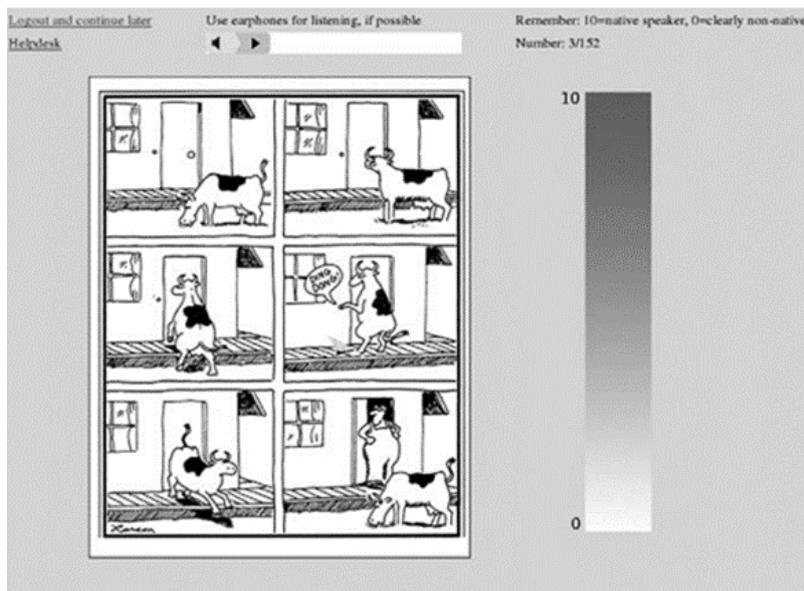


Figure 1: Screenshot of the online rating tool

To obtain biographical data from the participants regarding a number of factors that are commonly linked to the level of pronunciation mastery in second language acquisition (cf. Piske et al. 2001), it was decided to design a questionnaire (Q1) and administer it to the students at T1 and to design another one (Q2) in order to gather information about the time period in between T1 and T2.

Essentially, Q1 (75 questions) covered the following main areas:

- Personal data (gender, date of birth, education, language/s spoken at home, etc.)
- Exposure to English in their free time (through the internet, books, TV, etc.)
- Self-perceived musicality
- Self-perceived L1 and L2 competence
- Attitudes and motivation

For Q2, a much shorter questionnaire (10 questions) was meant to elicit crucial data covering the period between T1 and T2, hence questions regarding

- stay(s) abroad (internship, exchange semester, summer holidays in English-speaking countries),
- self-perceived language competence and progress made in English,

- satisfaction with the degree programme and suggestions for improvement

were addressed.

4 Selected findings

4.1 Comparison of sound file ratings

To compare the changes in the foreign accent of the focus group with those of the control group, the mean scores received from the judges at T1 (2011) and T2 (2014) were subjected to statistical analysis. These mean scores were calculated by averaging the scores obtained for both tasks (reading and speaking). Drawing on the data derived from the sound file ratings, the following results for both groups at T1 and T2 respectively could be reported:

Table 1: Statistics of sound file ratings for T1 and T2:

	Mean (SD)		<i>t</i> -test	
	Focus group	Control group	<i>t</i>	<i>p</i>
Average T1	5.9 (±1.4)	4.2 (±1.0)	4.75	0.000***
Average T2	7.0 (±1.8)	4.8 (±1.6)	4.86	0.000***

* Significant at the 0.05 probability level.

** Significant at the 0.01 probability level.

*** Significant at the 0.001 probability level.

As shown in Table 1, a *t*-test for independent samples revealed a significance level of <1%, which means that the differences between the focus group and the control group at T1 and T2 for all aspects analysed (reading, speaking, average) are highly significant. Interestingly, already at T1 the performance of the control group (average mean 4.2) was significantly below that of the focus group (average mean 5.9), and the same trend can be observed at T2 with the control group (average mean 4.8) distinctly lagging behind the focus group (average mean 7.0).

4.2 Factors accounting for difference in development

Trying to identify the strongest predictor for the changes in the perceived degree of foreign-accentedness, the biographical data collected in Q1 and Q2 were matched with the average difference calculated for pronunciation development. An ANOVA analysis with the difference in the development as the dependent variable revealed the following results:

Table 2: Factors influencing pronunciation development

Variable	<i>p</i>
Motivation to improve pronunciation	0.018*
Motivation to improve English language skills	0.012*
Anxiety	0.022*
Attitude towards English	0.442
Gender	0.115
Musicality (singing)	0.026*
English-medium instruction	0.019*
Media exposure	0.128
Internship abroad	0.613
Exchange semester abroad	0.058

* Significant at the 0.05 probability level.

** Significant at the 0.01 probability level.

*** Significant at the 0.001 probability level.

What emerges from the data is that no single variable was found to be highly significant ($p < 0.001$). The following factors, however, were detected to be significant ($p < 0.05$):

- Motivation to improve pronunciation
- Motivation to improve English language skills
- Anxiety to speak English
- Musicality
- English-medium instruction (i.e. adherence to group: focus group or control group)

5 Discussion

The results obtained in this study have shown that the foreign accent of both learner groups as rated by pronunciation experts from the University of Vienna improved. However, the difference in the degree of development of the two groups is highly significant as the EMI students decidedly outperformed their peers in the control group at the beginning of their studies as well as at the end. Over a period of almost three academic years, the focus group ameliorated their foreign accent by an average of 1.1 points, whereas the control group in the German programme scored significantly lower at 0.6 points. The initial superiority of the learners in the focus group gives rise to the assumption that those students at FHWien of WKW who are accepted into the bilingual programme already possess better pronunciation skills than the students in the German programme. This head start is then further re-enforced in the course of their studies and leads to a clear edge towards the time of graduation.

Regarding individual factors which may have contributed to the changes in the students' pronunciation, no single variable could be identified as the driving force in the two groups. Although the most outstanding feature of the EMI programme Entrepreneurship is the increased amount of exposure of the learners to native speaker input, the success of the focus group could not be traced to this factor alone. Instead, it appears that a combination of interrelated factors such as motivation to learn the language and to improve one's pronunciation, musicality, anxiety as well as exposure can have a positive effect on the development of the students' foreign accent. This rather unexpected finding can be seen in light of the Dynamic Systems Theory (DST), suggesting that language learning as such is an inherently dynamic process that is largely determined by a set of inter-dependent variables that interact over time (cf. de Bot et al., 2007). Supported by the results obtained in this project, it can be argued that language learning in general and the development of foreign

accent in particular are distinctly shaped by an inter-connected web of variables which are after all unique in every language learner and therefore difficult to generalize.

6 Conclusions

Having defined the main objective of the present study as the exploration of a specific EMI setting with regard to the development of the students' phonological competence, the most interesting finding that could be discerned was the beneficial effect of tertiary EMI on the adult learners' spoken language production. The data gathered in this case study provide convincing evidence that in the given context vital factors affecting L2 phonological acquisition come to the fore as they largely shape and positively influence the language learning process. All in all, it can be said that this empirical study demonstrates that in the long run English-medium instruction can indeed have a measurable effect on the learners' pronunciation skills. The degree programme described and analysed here appears to set favourable conditions for advancing the learners' pronunciation skills and thereby rejects the widely held view that the language learning process of adults is barred with the almost unsurmountable barrier of a critical period for phonological acquisition. Clearly, the business students who commit to the bilingual programme at FHWien of WKW can expect to improve their pronunciation considerably in the course of their studies. By creating added value for their students, the institution has established EMI as a strategic tool through which they can equip their graduates with highly desirable skills necessary to operate in today's culturally and linguistically diverse environments.

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Writing is the painting of the voice: Feedback – engagement – awareness – assessment

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Introduction & rationale

“[D]isciplinary knowledge and understanding are largely exhibited and valued through the medium of writing” (Curry & Hewings 2003, p. 19). This is especially true for writing within the ESP context in higher education as it fulfils “a range of purposes according to the various contexts in which it occurs” (Curry & Lillis 2003, p. 2). Although the main aim of the ESP classes (taught at the tertiary level) is to increase the students’ oral proficiency, more attention towards writing has recently been given in ESP classes due to international strategies in the form of English as a medium of instruction (EMI) programmes, double degrees and international research projects. In other words, getting more international has also changed the competences and needs of future graduates. It is no longer enough to have a good command of spoken English, gaining a sound proficiency in writing skills is vital to respond successfully to a globalized world.

Expressing increased knowledge and personal opinion, but also exploring possible positions and adopting a particular perspective, mirror the skills of future professionals in specific disciplines. Hence, we view writing as a tool for students to paint their voices. Unfortunately, students usually have a totally different perspective on this issue and see writing mainly as an assessment hurdle. This tension is further increased by the complexity of the subject matter generating overwhelmed students whose attitudes towards the importance of academic writing skills do not meet the expectations of academia – an area addressing a range of written competences in forms of emails, reports, documentations, abstracts of scientific research papers, conference proposals and proceedings which demands constant commitment on the students’ part in order to deliver satisfying results.

Bearing this in mind, it is obvious that students approach this skill with scepticism and often question the purpose. In fact, students enrolled in specific disciplines are very interested in the subject matter as such, however, not in skills that go beyond their original syllabus. In other words, students enrolled in engineering, for example, very rarely see the purpose of sound

linguistic competences, such as writing. This makes it even more challenging for the ESP teacher to achieve engagement when it comes to feedback, assessment and language awareness – considered to be vital elements in ESP teaching.

As a result, establishing a connection between content, feedback and assessment procedures is of utmost importance when facing engineering students with challenging writing tasks. Although this connection “[...] is seldom questioned or discussed” (Huot, 2002, p. 59), ESP teachers have to be aware of the importance of all three dimensions. Usually assessment results are what students are most interested in. Unfortunately, students rarely understand what the results are based on, and lack understanding for assessment criteria and how these align with content and feedback (cf. Huot, 2002). Hence, emphasis needs to be put on assessment as an ongoing process so that students’ awareness is raised for writing as being a process that develops through regular engagement with their own work as triggered by feedback (cf. Huot, 2002). Without addressing the purpose of the feedback method, engaging with it and awareness of it, the writing process cannot be developed.

For that reason, the paper at hand addresses this interesting connection and discusses ways how to aid the writing process by not only meeting the demands of the academic disciplines in question, but also by improving the students’ overall writing abilities. Only the connection between feedback, engagement, assessment and awareness for the writing process can reflect writing proficiency, and thus the painting of the voice. Based on a small pilot focus group interview with four students, we briefly address the issue of feedback methods and students’ voices on the interplay of feedback, assessment and engagement.

Feedback methods

Researchers’ positions on the effectiveness of written corrective feedback have shifted over the decades. The most notable change has been from error correction being ineffective to valuing it. Thus, there is no shortage of feedback methods a teacher can choose from and students either work with the written corrective feedback provided or not, raising the question of the students’ engagement when receiving feedback on their written performances.

In a pilot focus group interview on written corrective feedback, a group of four students (hereafter referred to as Angela, Dana, Marvin and Tara), were asked to voice their opinion on the various feedback methods that could be used by teachers concerning written assignments. They commented on several feedback methods, including codes in margin, error indication no

correction, peer correction and error correction. Error correction, for example, is one of the most common feedback methods applied in English language teaching. Some say it is one of the fastest ways of correcting a piece of writing and provides the students with the correct form. Drawing on the pilot study, Tara stated that “[w]hen I get a homework back and it’s corrected by the teacher then I don’t look at it anymore.” This was supported by Dana who stressed that “I think the most of the people don’t really look because they think, yeah, I did it, she noted [...] that I did it and yeah”. Hence, one can conclude that a lot of the students might not engage with simple error correction, as Marvin said “you should know why there is, um, why that’s the correct answer.” In order to ensure that students engage with written corrective feedback, it might be better to give them the opportunity to self-correct their piece of writing (a first and a second draft) before providing them with the correct version.

Another useful method that was favoured by all four students was the personal written statement where the teacher told them what they did well and had valuable tips on what and how they could improve in their next written assignment. On the one hand, Dana claimed that “[...] the personal written statement [...] I think helps me the most. Like I know, where is my mistake and I know, [...] how I can do it better and not only, okay, it’s wrong”. On the other hand, the students highlighted that two or three sentences as well as a simple ‘*Well done*’ would not be satisfactory. As Angela mentioned, her reaction to such a personal written statement would be: “What should I do now?”. Interestingly, the students remarked that the personal written statement on its own would not have the same effect as combined with other feedback methods, e.g. a colour-code and self-correction. For that reason we claim that not only one, but a combination of two or more methods seems to engage many students with the written corrective feedback they receive. Therefore, making them more open to complex written assignments, where several revisions, but also ongoing feedback, are essential to meet the requirements of academia.

Students’ voices on engagement with feedback

Another aim of the pilot focus group interview was to investigate the reasons for students’ engagement with corrective feedback on the one hand and to define certain factors that influenced the students’ engagement with it on the other hand. In the focus group interview students stated that some of the reasons for not engaging with written corrective feedback were their own laziness, no defined reason for doing an assignment, no possibility to ask the teacher questions, unclear instructions, and no correction at all on the teacher’s part.

Furthermore, anxiety and strategies for working with the feedback method also contributed to their disengagement with written corrective feedback.

In conclusion, teachers need to create a positive and enriching learning environment to foster students' willingness to work with them as well as the feedback method(s). Students should know that they can talk to the teacher and not like Angela pointed out that “[y]eah, you are just afraid to, to ask something” supported by Marvin’s statement that “students nowadays are really kind of afraid or really don’t like a subject.” Consequently, feedback needs to be seen as an ongoing and enriching dialogue between students and teachers, where questions can be asked and the purpose of the feedback method(s) used is made clear to them. Last but not least, teachers should also stress that writing is a process that can only be achieved by regular engagement with their own work supported by feedback. This should also be reflected in the assessment strategies used and made explicit to the students in order to understand that feedback and personal engagement are always in line with the way teachers assess students’ written work.

Assessment

Classroom reality, however, tends to treat assessment as something separate from teaching and learning. Hence, not only teachers but also students need to understand how assessment criteria can foster the learning as well as the teaching process so that progress in this particular linguistic skill becomes visible (cf. Huot, 2002). Huot (2002) points out, that one key element is the feedback method used. Adapting a formative approach to providing feedback – as we have already seen from the above-mentioned interviews – is more closely related to real life writing practice. Further, making clear to students that engaging in a reflective and critical way with one’s own writing is what happens when writing outside the classroom, as anybody who has experience in publishing papers is familiar with. Particularly in teaching contexts where students are prepared for careers in academia, this should be the overall goal of the teaching and the assignments given – helping students to engage critically with their writing so that the writing not only is meaningful, but also linguistically accurate.

Particularly for students, assessment comes at the very end of the course or term and is very often related to grades. Strictly speaking, they are not aware of the interplay between assessment and feedback when accomplishing writing tasks. Moreover, many teachers also see assessment as something separate from teaching and tend to view assessment as

something hindering teaching and learning (cf. Huot, 2002). Hence, both teachers and students have to communicate their needs and intended goals from the very beginning by outlining the process towards sound writing proficiency. More precisely, assessment is an ongoing process. Successful assessment is combined with feedback methods, content presented in class, and given assignments, that trigger progress through student engagement. Whether teachers have to use particular assessment scales or they are free to choose and develop their own assessment criteria, it is necessary to explain to the students, how the content, feedback, and the assessment criteria fit together. As previously stated, students need to understand what they are doing and why they are doing it. Only if this is understandable to them, are they more willing to cooperate and be engaged with what they are doing. This is particularly important for teaching contexts where language and linguistic correctness are of little importance to the students.

Conclusions

To conclude, the paper at hand tries to point out how complex teaching writing is and that all elements, starting from content to feedback method and finally assessment, are interwoven. Furthermore, this paper wants to raise awareness of explicitness in language teaching. Students need to know what they are doing and why they are doing it. Only if students understand what they are aiming for, will they be engaged and motivated to improve their performances. Particularly when it comes to text composition in a foreign language, students seem to become easily frustrated and rarely see the point of re-drafting and revising their work. In this particular case, the application of various feedback methods in combination with clear, in-line assessment criteria and awareness of the content taught, and how it relates to feedback and assessment, can clearly help students to overcome writing anxiety and help them paint their voices.

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Business English speaking anxiety in the Balkans

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1 Introduction

Foreign language (FL) anxiety is a distinguishable phenomenon in FL learning research, although its complexity has still not been clearly defined (Dornyei, 2005). It is categorized as a situation-specific anxiety, therefore possible to eliminate or diminish, and described as an important factor affecting FL learning in a rather negative way (Horwitz et al., 1986; Young, 1990; Yan & Horwitz, 2008). The term refers to subjectively felt apprehension associated with an arousal of the automatic nervous system and arising from the uniqueness of FL learning.

Interestingly, the causes of speaking anxiety in business English (BE) have not yet been investigated, despite the fact that BE integrates discursive competence of a certain discipline or profession, disciplinary knowledge and professional practice (Stevens, 1988; Zhu, 2008; Bhatia, 2011). Unlike in general English, the presentation of language items (real content) in all FL skills in BE instruction should rely on topics from some discipline (carrier content) - a precondition that requires that BE learners possess knowledge of carrier content, in our case economics (Hutchinson & Waters, 1987; Dudley-Evans & St. John, 1998).

2 The study

The study was carried out in 2015 to fill a research gap as well as determine the causes of BE speaking anxiety in higher education in the Balkans. To explore how BE teachers and learners in the Balkans perceive the causes of speaking anxiety, in-depth, semi-structured individual interviews were carried out in person and via Skype. The study focuses on FL speaking anxiety, because it has consistently been shown by FL research to be the most critical (Young, 1990; Horwitz et al., 1991; Öztürk & Gürbüz, 2014). We asked the interviewees questions such as: a) How much speaking anxiety do BE learners experience when speaking in English? and b) Why do they experience speaking anxiety?

The sample consisted of 90 students in the first or second year at various faculties of economics in six neighbouring Balkan countries (15 from each country, ages 18 to 22), as

well as of 35 BE teachers (5 from each country, ages 24 to 58) They were all studying BE for the first time, though not necessarily in their first year at the faculty, and had approximately the same number of years of English language study (between 10 and 12). The syllabus for BE and the instruction itself are comparable in all six countries (Čepon et al., 2014).

3 The results

As expected, due to the countries' long historically mutual heritage, similar value and school systems with only a few negligible differences continue to prevail and the results do not indicate any substantive differences among the interviewees from the six neighbouring countries regarding the causes of BE speaking anxiety (Čepon et al., 2014).

Although the study corroborated earlier findings on the causes of general English anxiety (e.g., Zhang & Zhong, 2012), proving their relevancy and applicability to BE instruction, it also confirmed that the causes of speaking anxiety encountered by BE learners vary.

Confirmed was the main assumption that the complexity and specifics of BE instruction make it especially conducive to raising additional levels of BE speaking anxiety, which only reiterated the key significance of specialist carrier content, related to various disciplines or occupations in BE instruction (Dudley-Evans & St. John, 1998). As evident from the research, the majority of all interviewees claimed to experience speaking anxiety only in the context of BE instruction.

The study uses one of the latest categorisations of the causes of BE speaking anxiety as learner-induced, classroom-related, skill-specific, and culture-imposed (Zhang & Zhong, 2012). Consistent with some earlier research (Young, 1991), almost all BE students, perceived their speaking anxiety as situation-dependent, thus higher in evaluative situations, precluding positive motivation and debilitating.

Much of the learner-induced BE speaking anxiety stems from BE learners' self-imposed, preconceived beliefs about BE learning (e.g., preoccupation with pronunciation or accuracy rather than fluency) and the threat to their self-concept of competence once their erroneous beliefs clash with reality (Horwitz et al., 1986, 1988; Kitano, 2001; Subaşı, 2010). BE speaking anxiety can be caused and/or aggravated by a competitive nature when they are self-assessed as less proficient than the objects of comparison or when their classmates/peers might ridicule their BE ability, threatening their self-esteem (Young, 1991). BE students' poor language ability in the native language can also induce speaking anxiety, as its proper acquisition has a great influence on learners' further linguistic development in English.

Additionally, inferior English language competence, whether it be real or a figment of imagination also appears to provoke speaking anxiety (Sparks & Ganschow, 1991; Zhang & Zhong, 2012). In accordance with that, two most obvious causes of learner-induced BE speaking anxiety identified by the research were insufficient real content of BE instruction (i.e., inadequate general English competence as a result of incomplete high-school FL instruction) and insufficient carrier content.

Classroom-induced BE speaking anxiety is mainly related to BE instructor factors, peers and BE classroom practices (Zhang & Zhong, 2012). The study showed that the least speaking-anxiety provoking among instructor factors were teaching styles and teacher beliefs about language teaching. In contrast, the study found a high incidence of BE speaking anxiety related to oral presentation, the level of perceived support from BE teachers (e.g., a lack of empathy for BE students' speaking anxiety), manners of error correction (e.g., reactive corrective feedback in the form of immediate, explicit error correction) and BE teachers' intolerance of silence and/or prolonged insistence on a student's answer in front of their peers (Onwuegbuzie, 1999; Gregersen & Horwitz, 2002; Tsiplakides & Keramida, 2009 Öztürk & Gürbüz, 2014).

The results indicated that the dispositional fear of negative evaluation by one's peers/classmates as conversational partners was a key source of classroom-induced BE speaking anxiety (Young, 1991; Gregersen, 2003; Ay, 2010). In addition, competent BE students' linguistic superiority may cause resentment among their less competent peers and consequently speaking anxiety among both groups of learners (Allwright & Bailey, 1991; Hilleson, 1996). The interviewees claim that such situations arise based on complex BE speaking tasks requiring group interaction, such as business-meeting simulations, negotiations and discussions. Group interaction particularly provokes speaking anxiety because it presupposes good knowledge of real content *and* carrier content. However, the greatest anxiety-inducing feature of group BE speaking tasks is their unpredictability or the pressure to think while talking required by the inability to plan speech exchanges in advance. Moreover, the study corroborated the evidence from the subjective group dynamics model according to which ingroup members constantly assess each other's performance and deviant ingroup members are interpreted as sources of threat (Marques et al., 1998; Abrams et al., 2000; Pinto & Abrams, 2010).

To move on to skill-specific causes, BE word knowledge acquisition, a lack of the knowledge of carrier content, and a necessity to speak unprepared in front of one's peers quite often

combined into a single, intimidating experience exerting detrimental effects on BE students (Horwitz et al., 1986, 1991; Öztürk & Gürbüz, 2014).

Finally, some socially-imposed causes of speaking anxiety originate from BE learners' own cultural values or habits they may bring with them into the language classroom. BE students' reluctance to speak in class may be the result of different socio-cultural values, not always speaking anxiety (Tsui, 1996; Allen, 2003). On the other hand, due to a combined lack of real and specialist carrier content, the study observed a reluctance to disagree with certain views presented in BE class as well as a disinclination to express one's real opinion on economics topics in BE class (Steinberg & Horwitz, 1986).

Parental expectation was also found to be an important source of language anxiety (Zhang & Zhong, 2012). Our study observed parental expectation that good BE knowledge automatically leads to a better job and so they place extremely high value on the attainment of BE proficiency. According to the results, some students seemed to agonize over the possibility of being stigmatized because of inferior English, a language that appeared to have a special status in the Balkans, almost to the point where knowledge of English could be an indicator of one's socioeconomic status (Pinter, 2011).

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Performance-based assessment of business English students' project presentations

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Introduction

Nowadays, living, working and studying have become very dynamic and multidimensional. This dynamic has affected all areas of life, including education. Today, competition has become very strong, and in order to succeed, one needs to have many different skills. Respectively, primary schools, middle schools, high schools and universities, i.e. teachers and educators, are responsible for enabling their learners and enriching them with all the necessary skills. There is the utmost need for students to perform using higher thinking skills, analyses, comparisons, evaluations, creative thinking, etc. Teachers are also supposed to help their learners in mastering additional skills such as: teamwork, cooperation, respect, and work ethic.

However, the questions raised are the following: are these criteria objective, do we measure objectively, are the results and the assessment reliable? Therefore, unlike in the past, when most tests were supposed to check the understanding of grammar, vocabulary, reading comprehension and writing, researchers have shifted the focus to performance-based assessment, which assesses the skills necessary to succeed and win amidst strong competition.

Assessment is not important only for the students and their grading, it is also important for the teachers, advancement and improvement of programs, schools and parents. This is best supported by Lion F. Gardiner (1994, p.109), who claims that, "Assessment is essential not only to guide the development of individual students but also to monitor and continuously improve the quality of programs, inform prospective students and their parents, and provide evidence of accountability to those who pay our way."

In this research paper, we have defined the terms performance-based assessment and traditional assessment. Additionally, we have described both types of assessment, and we have discussed what each type of assessment measures. We have analysed the performance-based assessment of business English students' project presentations, in terms of promoting higher thinking skills, authentic creative thinking, comparing and contrasting, analysing and evaluating.

Literature review

Speaking from the viewpoint of a teacher, assessment is a very complex and important part of education. Assessment, as a term, is evaluating the learner's capability to acquire what has been taught. In order for a fair and reliable assessment to take place, several conditions have to be fulfilled beforehand. The assessor has to be acquainted with the different types of assessment, how to conduct it, and what assessment type to use in what situation.

In this paper, we are mostly concerned with two types of assessment, the traditional assessment versus performance-based assessment. Performance-based assessment was used in our research, and here we highlight the differences among these two types of assessment.

Traditional assessment is grounded on educational philosophy; it tests certain skills that the school believes the students need to possess. Tests are created in order to test and assess how much the learners acquired in terms of grammatical structures, vocabulary, reading comprehension and writing.

Traditional assessment was conducted using multiple choice tests, which did not require the learner to produce the answer, instead they simply had to circle the correct one. How could teachers possibly know if the learners would be able to come up with the correct answer, if they were not provided with it in the first place in the multiple choice test?

This and other factors, such as reliability of the results, fairness, and objectivity led to the shift from traditional assessment to performance-based assessment. In order to be able to understand assessment and performance-based assessment better, terms must be defined and explained first, and then analysed. First, we will provide the definition and meaning of assessment in education in general, and then the definition of performance-based assessment.

On the one hand, assessment has been defined by different authors, among them Hubba and Freed (2000, p.8), who claim that "Assessment is the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning". According to Hubba and Freed, assessment involves many factors; it is cumulative, which means that after the learners have performed on different classroom/ homework activities, the teachers gather the information, so that they can understand how much the learner has acquired and what they are capable of doing with that knowledge.

On the other hand, the term performance-based assessment has been also defined and explained by different researchers, scholars, teachers such as Rudner & Boston, (1994), Wiggins, (1989), Hibbard and others (1996), Stiggins (1994), and so forth. However, what is of interest to us is that the definition has varied greatly, depending on the author defining it, the publication, and the audience for which it has been intended (Palm, 2008).

The Office of Educational Research and Improvement of the U.S. Department of Education (1993) as cited in Wren (2009, p.2) provides an example of a response-centred definition of performance assessment.

“Performance assessment . . . is a form of testing that requires students to perform a task rather than select an answer from a ready-made list. For example, a student may be asked to explain historical events, generate scientific hypotheses, solve math problems, converse in a foreign language, or conduct research on an assigned topic.”

Furthermore, Hibbard and others (1996, p.5), as cited in Brualdi (1999), claim that performance-based assessments "represent a set of strategies for the . . . application of knowledge, skills, and work habits through the performance of tasks that are meaningful and engaging to students".

This type of performance requires higher thinking skills from students, so that they are able to apply the knowledge they have acquired, and they do it by performing different tasks and activities, which are specifically intended to engage students.

Along these lines, Torrance (1995, p.1), as cited in Herrington & Herrington (1998, p.2), claims that ‘authentic assessment’ is a generic term ... to describe a range of new approaches to assessment. The basic implication of the term seems to be that the assessment tasks designed for students should be more practical, realistic and challenging than what one might call ‘traditional’ paper-and-pencil tests. Torrance has clearly claimed that the performance-based assessment is a new approach to assessment. It is about tasks and assignments designed to challenge students’ higher level thinking skills, creative thinking, and problem solving skills.

Herrington and Herrington (1998) as cited in Wren (2009) noted that the terms “performance assessment” and “authentic assessment” also tend to be used interchangeably.

Herrington & Herrington (1998, p.4) recognize four essential elements of authentic assessment, which are the following:

1. Context- In what context will the performance occur;
2. Student's role- Students are required to be effective performers;
3. Authentic activity- Complex challenges which require judgment;
4. Indicators- Indicators of learning.

Performance-based assessment is based on four basic elements, which when put together contribute to the effectiveness of the performance-based assessment approach. It is highly important that teachers/educators create the necessary context for the students to be challenged and perform. Learners are supposed to actively and effectively participate, and thus, effectively perform. As has already been mentioned, performance-based assessment requires learners' judgment, besides requiring their creative thinking, evaluation, comparison, etc. The challenges should be complex in order to trigger learner judgment. And last but not least, there are the indicators which indicate that learning has taken place. Without indicators, the performance-based assessment approach would be incomplete.

Methodology

This study was carried out at the Language Centre, South East European University, Tetovo, the Republic of Macedonia, in the academic year 2015/16. The collected data was analysed using the quantitative method, a student questionnaire and a rubric for assessing students' presentations.

The study answered the following research questions:

1. Does performance-based assessment include the necessary skills and knowledge to be used in real life situations;
2. Is peer evaluation subjective, and if so, how;
3. Does this way of assessment lead to higher level thinking and authentic creativity;
4. Can performance-based assessment results be used in tailoring instruction in ESP for the identified weaknesses?

Participants

The participants involved in this scientific study were 51 students attending English for specific purposes (ESP) business English at South East European University. The age of the participants ranges from 18 to 25 years old. All participants are non-native speakers of English; they are Albanian, Macedonian and Turkish.

Procedure

Fifty-one students were requested to fill in a questionnaire. We used the typical Likert scale starting with strongly disagree, agree, neutral, agree and strongly agree. They were asked to choose only one answer, depending on what their perception was of the asked questions and how they related it to the course.

Results

The research questions were derived from the questionnaire conducted with students and according to the questionnaire results the following data was obtained.

As far as the first research question is concerned, **“Does performance-based assessment include the necessary skills and knowledge to be used in real life situations?”** the analysis of the data collected from the student questionnaire showed that 88% students strongly agree that performance-based assessment demands that students apply problem solving and higher level thinking. No student strongly disagreed with this statement, 4% students disagreed, 4% were neutral and 6% agreed. This kind of assessment determines student’s understanding and knowledge of the subject matter. Through performance-based assessment, teachers can see how well students can use their skills and knowledge.

Next, the second research question, **“Is peer evaluation subjective, how?”** investigated whether there is a big difference between the scoring of the teacher and the peers. The results obtained from the questionnaire showed that 80% of the students do not see a gap between the scores applied when assessing students’ project presentations. Coupled with this, 80% of students think that this type of assessment provides fair, valid and reliable results when marked. This shows that this type of assessment measured what it was intended to measure with consistent results and most of the students were generally positive toward this kind of testing. Likewise, 74% of students strongly agreed that the grading rubric used for scoring their project presentations reliably evaluates their work. Above all, students received positive benefits from being involved in grading their friends.

To the third research question, **“Does this way of assessment lead to higher level thinking and authentic creativity?”** 82% of students strongly agreed that performance-based assessment helps students become autonomous learners. In contrast to traditional types of tests, this kind of test requires the students to perform better and think critically. Accordingly, only 42% of students strongly agreed that this kind of assessment does not reflect students’

performance in real life situations. The findings in this study suggest that performance-based assessment leads to examining the students' accomplishments and their further needs for development.

Finally, as far as the fourth research question is concerned, **“Can the obtained results be used in tailoring instruction for the identified weaknesses?”** the questionnaire results showed that 78% of students think this really helped them in improving what were identified as gaps in their learning. Consequently, 76% of students think that this contributes to detecting how a student understands and applies a particular knowledge and in this way the teacher is informed about his/her teaching therefore promote learning.

Conclusions

In contrast to traditional assessment where students need to demonstrate how well they know a particular subject, performance-based assessment examines how well they can apply what they know. With attention to the fact that the content of the subject area to be taught is covered in the course syllabus, students were given the chance to show their higher-order skills and critical thinking, which require an active participation in the whole process of assessing.

During the preparation of their projects, students were expected to apply their knowledge and skills, subsequently, creativity, critical thinking and analysis of different sources used while preparation of their assigned tasks came into view. The problem that occurred with group projects was students earning points for things that he or she did not do. Particularly, even though they were given an identical workload, not all group members were committed to do their parts and this resulted in some members working harder and others working less.

Furthermore, this type of assessment is time consuming in that it takes a lot of time for designing and administering, and is also challenging to score. Subsequently, inasmuch as there are no clear right and wrong answers, this will lead to the freedom of expressing ideas, in which case the evaluators face difficulties in distinguishing an average performance from an excellent one.

In any case, the data obtained from this study suggests that performance-based assessment can be used successfully in evaluating students' projects, in particular, developing the effectiveness of teaching and evaluation. Other than this, as seen from the results from the

questionnaire such assessment provides the teachers with the information they cannot receive via traditional ways of evaluation. Above all, performance-based assessment inspires students to apply higher-order thinking skills such as examination, combination and evaluation.

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Appendix 1

Student Questionnaire

Put a ✓ below the number you agree with the most.

5- Strongly Agree 4-Agree 3-Neutral 2-Disagree 1-Strongly Disagree

	5	4	3	2	1
1. Performance based assessment requires me to apply my problem solving skills and higher level thinking.					
2. There is a big difference between the peer assessment and teacher assessment results.					
3. Performance based assessment helps me in becoming autonomous learner.					
4. Assessing peers' presentations leads to critically evaluating the work of others and identifying the possible strengths and weaknesses.					
5. Performance based assessment provides fair, valid and reliable results when marking.					
6. The developed rubric for grading presentations and performances reliably evaluates our work.					
7. Performance based assessment contributes to detecting how I understand and apply a particular knowledge.					
8. This kind of assessment does not reflect my performance in real life situations.					
9. The score received from performance based assessment corresponds to other traditional assessment methods.					
10. The results obtained from performance based assessment can be used for adapting the teaching for the identified gaps.					

Appendix 2

Peer Scoring Rubric for Oral Presentations

Category	Scoring Criteria	Total Points	Score
Organization (15 points)	The type of presentation is appropriate for the topic and audience.	5	
	Information is presented in a logical sequence.	5	
	Presentation appropriately cites requisite number of references.	5	
Content (45 points)	Introduction is attention-getting, lays out the problem well, and establishes a framework for the rest of the presentation.	5	
	Technical terms are well-defined in language appropriate for the target audience.	5	
	Presentation contains accurate information.	10	
	Material included is relevant to the overall message/purpose.	10	
	Appropriate amount of material is prepared, and points made reflect well their relative importance.	10	
	There is an obvious conclusion summarizing the presentation.	5	
Presentation (40 points)	Speaker maintains good eye contact with the audience and is appropriately animated (e.g., gestures, moving around, etc.).	5	
	Speaker uses a clear, audible voice.	5	
	Delivery is poised, controlled, and smooth.	5	
	Good language skills and pronunciation are used.	5	
	Visual aids are well prepared, informative, effective, and not distracting.	5	
	Length of presentation is within the assigned time limits.	5	
	Information was well communicated.	10	
Score	Total Points	100	

Strategies for speaking clearly and with confidence

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Introduction

Acquiring an intelligible pronunciation can be crucial for ESP learners for success in their future workplace. Especially in areas such as aviation and healthcare, it can even be a matter of life and death. However, pronunciation is a difficult skill to teach and to learn. Among the obstacles to achieving oral proficiency for English language learners is L1 interference. This paper introduces a pronunciation practice guide (PPG) that has been found to be effective in minimizing L1 interference in Japanese learners of ESP and giving them communicative confidence (Janjua, 2010). The paper gives a theoretical background to the PPG's development, describes its use in the classroom, looks at student preferences and impressions of it and offers thoughts on utilizing the underlying principle of the guide to develop strategies for managing L1 interference in ESP learners with first languages other than Japanese.

Theoretical background

L1 interference is a major obstacle in L2 oral performance by Japanese learners of English (Ohata, 2004). A large part of this interference originates in *katakana*, the syllabic portion of the Japanese writing system used largely for writing foreign words. Using *katakana*, any foreign language word can be transformed into the Japanese language, losing in the process the pronunciation of its original language and instead acquiring a uniquely Japanese way of pronunciation. Some examples of such transformations of English words into the Japanese language are: *adoressu* for address; *kaaten* for curtain; *sutoppu* for stop; *teiburu* for table; and *waarudo* for world. With English being a foreign language for native Japanese speakers, virtually the entire English lexicon can be written and pronounced in a Japanese way. Consequently, when Japanese speak English, they experience L1 interference and have difficulty making themselves understood by non-Japanese English speakers (Shimo, 2002).

While considerable literature exists on how L1 may interfere with L2 acquisition at various levels in Japanese EFL learners (reviewed in Janjua, 2010), little information is available on how the interference may be dealt with or managed in the classroom, especially in the oral performance of L2. Approaches such as teaching the English pronunciations of katakana words at the beginning of each class and the use of minimal-pair drills where the confusing sounds are compared and contrasted have been suggested (Smith, 1997; Wells, 2000; respectively, cited in Janjua, 2010). However, there are no data on the effectiveness or systematic use of these or any other practices aimed at dealing with L1 interference in the Japanese learners of English. Given the magnitude of the problem and the multiplicity of interference points, cohesive and consolidated strategies are required that can guide the learners to deal with the interference by their L1. The PPG described here was developed with an aim to meet the need in this critical area.

Use of PPG in the classroom

The PPG in its complete form, together with step-by-step instructions for its use both for the teacher and the students, has been reported elsewhere (Janjua, 2010). Briefly, it is comprised of eight columns titled C1-C8. The columns represent eight sets of English words that can be pronounced in both English way of pronunciation (EWP) and Japanese way of pronunciation (JWP) and that commonly show L1 interference in Japanese learners of English. The guide utilizes a unique way of overcoming the L1 interference by comparing the EWP of English words with their JWP. Using the PPG, learners can acquire the ability to distinguish between the two pronunciations. This, in turn, enables them to pronounce the English words more intelligibly.

Although the PPG itself is written only in English and does not contain any Japanese words, at least some knowledge of the Japanese language system, especially the katakana portion, is essential for the teacher to use the guide successfully in the classroom (see *Instructions for the teachers* in Janjua, 2010).

The first test trial of the PPG was conducted on 51 Japanese university sophomores (6 males, 45 females) enrolled in a 4-year health sciences program leading to nursing or medical technology degrees. The testing was done in a spring semester elective course in EFL. Prior to taking the course, all students had completed the equivalent of two one-semester compulsory EFL courses during their freshman year as a part of credit requirement of the Japanese

university system. Both of those courses were taught by native Japanese teachers and did not include any specific training in pronunciation.

Students were tested for their pronunciation of the words in the guide at the start and the end of the semester during which they did weekly pronunciation practice using the PPG according to the instructions for its use (Janjua, 2010). For the test administered at the start of the semester, each student was asked to read aloud all eight words in a given row of the PPG without any prior knowledge or explanation of the guide. Students read the words into a microphone and data were recorded manually as EWP or JWP depending on whether the student pronounced the words in an English way or Japanese way, respectively.

After the first test, the PPG was systematically introduced to the students according to step-by-step instructions mentioned above. It was then used to practice pronunciation each week in addition to a regular lesson that involved reading, writing, listening, and speaking activities. Out of the total class time of 90 minutes per week, the time spent on pronunciation practice using the guide ranged from 10-15 minutes. At the end of the semester, each student was asked to read aloud the same line of the guide that he/she had read at the start and data were again recorded as EWP or JWP in the same manner and using the same criteria as in the first testing. Results of the PPG test trial showed a highly significant increase in the frequency of EWP for each column and also in the mean of all eight columns ($p < 0.00001$) (Janjua, 2010).

Since its first test trial, the author has used the PPG regularly and successfully in the Japanese ESP classroom.

Student preferences and impressions

This section describes a survey of student preferences and impressions of the PPG carried out in four Japanese university freshmen classes where the PPG was used over a period of one semester. In all four classes, students did the following three sets of activities: 1) Practicing writing, reading, listening, and speaking; 2) Practicing pronunciation using the PPG; and 3) Making sentences using the words in the PPG.

At the end of the semester, students were asked through a questionnaire to rank the three sets of activities on a scale of 1 (most preferred) to 3 (least preferred) and to give reasons for their preference of the activity they ranked 1. A total of 146 students completed the questionnaire and the number of those who ranked “Practicing pronunciation using the PPG” as 1 was the highest at 85(58%) while those who ranked it 3 the lowest at 20(14%) (Janjua, 2010).

The reasons given by the students for their preference of PPG ranged from the simple fact that they could learn the correct pronunciation, to becoming aware of the importance of pronunciation in learning English and of the practical significance of the guide. One student even went as far as to write the following: “The Pronunciation Practice Guide is very intelligible and practical. I will keep the PPG for a long time.” Especially noteworthy also were comments that reflected students’ feelings about improvement in their pronunciation, such as: “I felt that my pronunciation skill became better and better. I got a confidence by pronouncing many times”; and “I felt my pronunciation got well and it made me happy” (Janjua, 2010).

Discussion

Results of the test trial of the PPG and its subsequent use by the author provide strong evidence for the guide’s effectiveness in minimizing L1 interference in the pronunciation of individual words by Japanese learners of English. Increase in the EWP frequency in the students after using the guide for only one semester is striking. The data suggest that it is critical for the learners to recognize the differences between the JWP and EWP of the English words and be able to distinguish between the two in order to minimize interference from their L1. Once the students could do that through the use of the guide, a remarkable improvement was observed in their pronunciation.

ESP learners need both grammatical and communicative competence and L1 interference can interfere with their workplace communicative intelligibility. However, little emphasis is placed on teaching pronunciation in the EFL/ESP classroom. Teachers often give different reasons for not including pronunciation in their lessons such as: “It takes too long” and “It wasn’t in the books” to quote two examples from the literature (Reviewed in Janjua, 2010). In the author’s teaching experience too, there have been many instances where teachers expressed reluctance and fear that including pronunciation practice in their classes will inhibit students from speaking.

However, the results of survey on student preferences and impressions of the PPG do not support the above mentioned perception among teachers that teaching pronunciation can be difficult or inhibiting for the learners. On the contrary, the results show that teaching of pronunciation can be an interesting, enjoyable, and motivating activity that can in fact build confidence in the learners and help them overcome their inhibitions in speaking the language.

Students who took part in the survey, clearly showed their preference for practicing pronunciation in the classroom as compared to doing other non-pronunciation activities. Furthermore, individual student responses giving reasons for their preferences highlight the need and importance of teaching pronunciation in the EFL/ESP classroom.

Although it remains to be seen how much longer beyond the period of one semester the students can retain their EWP abilities, the findings clearly indicate that they can indeed learn to reduce the interference by their L1. Further studies need to be carried out to assess the long-term acquisition of EWP by the learners as well as their capability to retain this skill when pronouncing the English words as part of an entire text. In the meantime, the data on effectiveness of the PPG in terms of the actual improvement in EWP frequencies and the findings on student preferences for the pronunciation activity using the guide provide convincing evidence that this simple tool can be beneficial in tackling the problem of L1 interference in the Japanese EFL learners and give them both competence and confidence for using English in their future workplace.

Applying the PPG principle to other language contexts

It may be tempting to explore possible application of the underlying principle of PPG to develop strategies for managing L1 interference in ESP learners with first languages other than Japanese. Fundamentally, what PPG does is that it makes the learners aware of the differences in pronunciation of their mother tongue and the target language, and theoretically this knowledge would be of relevance in virtually any L2 learning context. In practice, however, whether or not a PPG like tool is warranted in case of a different L1 will be determined by factors such as the degree of L1 interference, the ease of discrimination between L1 and L2 pronunciations, and the students' previous training in learning pronunciation. In the Japanese context, teaching of pronunciation, including that of differences between EWP and JWP of English lexicon, is not a common practice at the pre-university level. Consequently, most Japanese enter university believing that JWP is equivalent to EWP and, therefore, have difficulty being understood by non-Japanese speakers of English. This makes the PPG an indispensable tool for ESP learners in Japanese university classrooms. In order to apply the PPG principle to a different L1 context, the feasibility of developing and implementing a similar tool will first need to be determined in light of the above mentioned considerations.

Conclusions

The PPG introduced in this paper is simple and easy to use both by the teachers and the learners and offers a new tool to cope with and manage L1 interference in the Japanese ESP learners. Incorporation of pronunciation practice in the regular lesson plan using the guide can help minimize interference by the learners' mother tongue, give them communicative competence and help speak clearly and with confidence. The underlying principle of PPG also makes it tempting to explore strategies for managing L1 interference in ESP learners with native languages other than Japanese.

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Joint forces: Web literacy meets ESP

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Introduction

Lecturers on tertiary level today have a variety of Information and Communication Technology (ICT) tools at hand, which supposedly enhance and facilitate learning, especially in a blended course setting. Oftentimes, they may find themselves experimenting with performing trial and error during the ongoing semester, which equals a loss of valuable time, to say the least. Putting such tools to use, which seem particularly fit for deployment in part-time studies, where face-to-face time in a traditional classroom setting is very limited, requires a thoughtful selection based on didactical considerations prior to the course start. The goal is to impact students' motivation and success due to encouraging self-study as well as "inquiry within a community of learners" (OECD, 2012, p. 2), which makes it possible to teach and learn with others and from others without being in the same place at the same time.

The challenges for the blended English for Specific Purposes (ESP) course Effective Public Speaking boil down to the question of how language and public speaking skills can be improved without weekly face-to-face sessions in a traditional classroom setting. This paper argues that certain ICT tools hold an incredible potential for efficient language teaching and learning provided that they are used with the purpose in mind to guide and assist the students during the blended learning process and both students and instructors have appropriate technological and digital know-how (web literacy). On the instructor's part, e-didactics need to come into play besides the application of established language learning theories when it comes to syllabus design for language instruction in order to create an environment that allows for ongoing personalized learning on the students' part. Thus, determining what content needs to be covered in face-to-face sessions and to what extent workload can be distributed to the online environment is a crucial success factor for a blended learning language course format.

The ESP course Effective Public Speaking

The ESP course Effective Public Speaking was taught in the part-time Master's programme Public Communication (COM) at the Institute of Journalism and Public Relations in the Winter Term 2015/16. The one-credit-hour course was organized into two face-to-face sessions of three units (Session 1: Presentation Competence Basics; Session 2: Talking about your Business: The Elevator Pitch), one asynchronous e-learning session (Talking on behalf of your Company. Acing the Public Statement) and one joint presentation assessment with the German-taught course Präsentationstechniken (Presentation Techniques).

Communication and coordination

Both at the syllabus design stage as well as throughout the course of the semester, the language instructor was supported by an e-didactics specialist to secure maximum transparency, continuity and cross-curricular efficacy. During the planning stage, a strong focus was on the due-dates for the various online tasks, which the students would have to perform in terms of home assignments in order to coordinate and align the deadlines with those of the other courses in the semester to avoid task-overload and clashes.

All the material for the face-to-face sessions as well as for the e-learning session was put on the learning platform Moodle for the students to download. The due-dates for online assignments were communicated to the students prior to the course start in September, and the students were equipped with a calendar-overview depicting all the due-dates for all the courses taught in their degree programme in their first semester to ensure a well-balanced distribution as well as feasibility. The instructors were supplied with bios of all the students over Moodle, including a photograph before the semester started, which made it possible to streamline the getting-to-know phase in the first face-to-face session and to tailor the input to the vocational context of the master students. Moreover, each instructor was asked to produce a short three- to five-minute video clip for the students to familiarize them with the core objectives of their courses and to introduce themselves.

Learning objectives

Mastery of the fundamental components of an impactful presentation, capturing the audience's attention from start to finish, delivery of clear and high-impact messages as well as gaining self-confidence and conquering stage fright within the context of public speaking were among the key objectives of this course. Students learned how to stand out with an effective elevator pitch to introduce their company, product or service quickly and compellingly. The major focus of the course was on how to craft powerful statements on

behalf of their company or project, which was intended to enable the audience to form an opinion or change their minds on an important issue, since the public statement plays a fundamental role in building a perception of a company and ultimately its reputation. Online practice of the statement was therefore paramount.

Tasks, e-learning elements and learning outcomes

Each session was followed up by means of a set of online tasks to be submitted via Moodle. After each of the two face-to-face sessions, the students were supposed to write a study journal entry reflecting on their lessons learned and individual learning objectives. Furthermore, they had to upload a sound file (recorded via vocaroo.com) according to the instructions given to practise and apply knowledge and skills gained. After the e-learning session, they were required to engage in a one-on-one Google+ Hangout session (in pairs), which they made available to the instructor and all other participants via a link on Moodle. Each study journal entry was commented on by the instructor via Moodle, and assessment sheets were used to provide a detailed analysis of each student's oral performance with regard to the sound files and the one-on-one Google+ Hangout.

The one-on-one hangout acted as the rehearsal for the final joint assessment at the end of the semester, and a two-hour hangout session was held with all the participants in the course one month beforehand. The live hangout on air was centred around giving feedback in real time based on what had been observed in the one-on-one hangouts to enhance student performance at the joint final assessment stage. Students were advised to be present during the whole session, even though only ten people can be active simultaneously in this online learning environment. Throughout the live hangout, the other students could pose their questions using the Q&A feature, which the instructor commented on either orally or in writing. The two-hour hangout was organized into four parts. Active participants in each slot were preselected relative to the areas of expertise and difficulty they shared. The students' score for their performance in the joint final assessment improved significantly compared to the one-on-one hangout, as determined by the instructor's use of one and the same assessment sheet with a maximum score of 50 points.

ICT components employed

The employment of ICT tools that follow Web 2.0 principles (O'Reilly, 2007) in this course brought added value, since they provided speaking practice as well as the possibility of giving individualized feedback that is beyond the capacity of a regular face-to-face session setting.

All the components were linked over the learning platform Moodle as a hub. URL links for individual uploads were entered into the function Wiki. Thus, all the students were provided access to their peers' Vocaroo recordings for their presentations sound files and the Google+ one-on-one Hangouts. Due to the objectives of the course, the focus was on oral performance, which led to the use of Vocaroo and Google+, since these tools allow for voice recordings and filming respectively.

Reflexion of applied (language) learning theories

Behaviorist, cognitivist, and constructivist theories have contributed in different ways to the design of online materials, and they will continue to be used to develop learning materials for online learning. Behaviorist strategies can be used to teach the facts (what); cognitivist strategies to teach the principles and processes (how); and constructivist strategies to teach the real-life and personal applications and contextual learning. There is a shift toward constructive learning, in which learners are given the opportunity to construct their own meaning from the information presented during the online sessions. (Ally, 2007, p. 24).

When planning the course and designing the handouts which accompanied each face-to-face session, the rationale was providing minimal theoretical input and short video clips followed up by discussions and short presentations in small groups, aiming at communicative competence. Each presentation task was open in terms of what students wanted to talk about, thus giving them a chance to put it in the context of their work life and draw on personal experience. The students appreciated this approach because they considered it meaningful to work out an elevator pitch presenting their own company in less than three minutes, since they claimed that they would be able to use it in the future. Drawing on the students' vocational context is very much in line with constructivist methodology and communicative language teaching (CLT) "to promote the development of real-life language skills by engaging the learner in contextualized, meaningful, and communicative-oriented learning tasks" (Brandl, 2007, p. 22). The handouts contained multiple links to websites for fostering learner autonomy. Students who had read the supplementary section on rhetorical figures gave much more detailed written peer-feedback in response to the one-on-one hangout (public speech) than others, for example. Learner autonomy and taking responsibility for their own learning, another constructivist principle as postulated by Benson (2006, p. 21), was fostered through reflection on their own learning in writing online study journal entries.

That is to say that a lot of communication took place outside the classroom, which is true for teacher-to-student communication as well as student-to-student interactivity. Within the connectivist approach, developed by George Siemens (2005), individual networks become important, as learning "is seen to occur when peers collaboratively share opinions, viewpoints

and critiques through conversation and dialogue on a more mutual basis than the traditional teacher / student relationship” (Friesen & Lowe, 2011, p.85). The theory of Connectivism is very much concerned with the question of how students learn over what it is that they learn, since knowing where to find knowledge is crucial for life-long learning and continuous second language acquisition. Thus, students also interact with material put online autonomously, choosing for themselves what seems relevant for them at the time and put it to use in the tasks assigned, at various degrees depending on prior knowledge. “Connectivism can be used as an important instructional guide or theory to develop previous learning theories for their application to a globalized and networked world [...]” (Duke et al., 2013, p. 9).

The virtual learning environment in combination with and in comparison to a physical classroom allows for “[...] learners to participate in learning regardless of geographic location (place-independent) theoretically 24 hours a day (time-independent) [...]” (Inoue, 2007, p. vii). In the physical classroom, instructors face technological challenges if the internet is down or the projector is out of order. Oftentimes, face-to-face sessions also suffer due to time and resource constraints or simply because of human indisposition and lack of expertise on the instructor’s part. Through smart devices, all these limitations inherent in the traditional classroom setting can be overcome virtually much to the advantage of the learner and the instructor, who can deeply engage in synchronous and asynchronous discussion.

Conclusions

The course evaluation conducted after course completion by the head of institute (oral feedback) showed a high satisfaction level among the students. The vast majority maintained that they had greatly benefitted from the way technology had been incorporated in the learning environment and improved their English language proficiency besides public speaking skills. Some stated that they had started to put to use various ideas they had gained in the course in their workplace. The deadlines for the assignments were considered fair, and there was reportedly enough room for practice. From the instructor’s perspective, learning improvement was owed to the high motivation level of the students throughout the semester, their commitment to writing their study journals and giving peer-feedback, which helped them see what aspects needed their attention and improvement. Students who had taken advantage of extra reading and exercises linked to Moodle outperformed others who had solely completed the mandatory tasks. Nevertheless, all the students passed the course at the first

attempt, and the average mean grade was 1.56 on a scale from *one* to *five*, with *one* equalling 96 to 100 percent of the total score.

The learning platform Moodle as a hub lent itself very well to structuring the course and embedding the ICT tools used. The Vocaroo voice recording service as well as the Google+ Hangouts facilitated individualized language coaching, which took into account students' prior language and presentation skills and made it possible to build proficiency from there. Having the possibility of listening to and watching the fellow students' (voice) recordings and learning from the peers' hangouts through in-depth analysis (peer feedback sheets) contributed considerably to the learning outcome.

There is no denying that sustainable learning success has been based on a high level of digital literacy on the students' as well as on the instructors' part. Successful completion of the course would not have been possible, unless there had been a strong focus on developing digital literacy both in the instructors and in the students during the orientation phase. In the first weeks of their studies, the goal was to instruct the students in how to employ ICT tools like setting up a Google+ Hangout session. Instructors, on the other hand, were provided with continuous support and ideas for infusing the tools into the didactical scenario through personal tutoring, written manuals and instructions on Moodle.

It goes without saying that the tight-knit continuous collaboration with the e-didactics expert was a prerequisite for the successful organisation of the course requiring both commitment and resources, which may well have exceeded the standard preparation times, a fact which might well not be recognized by the educational institution. There is a strong need for ongoing on-the-job training for instructors whose course formats emphasize technology integration. At the FH JOANNEUM, there is an annual e-learning day, where instructors can present their findings and share their experiences with others. Moodle courses are offered in-house several times a year to aid instructors. To conclude, it must be stated that educational institutions need to realize that the enormous potential held by mixed-mode instruction in terms of raising the number of postgraduate part-time studies and reaching out to new target groups in the future requires additional resources and provision of adequate infrastructure.

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An investigation into communicative events and English language use by engineering students in professional internships

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1 Introduction

The combination of a practical training period in industry and scientific studies at university is a common way of familiarising students of engineering disciplines with their future workplace. The close cooperation between industry partners and tertiary degree programmes enables the establishment of curricula which reserve a defined term for industrial student placements. Such educational models not only facilitate learners' career entry after graduation but also strengthen their understanding of current industry requirements, processes and techniques already during their studies.

This article attempts an investigation into the English language use of automotive and aeronautical engineering students in professional internships, which take place in the final study phase of these degree programmes. The results of this investigation should allow inferences concerning industry demands imposed on the communicative skills of student interns and, partly, entry-level engineers. In this way, English language instructors may draw conclusions on aligning focus areas in teaching with data generated in the workplace.

1.1 Literature review

In general, there is broad agreement among industries and businesses that excellent communication skills are vital for the workplace (Engineering Council, 2004/2010, p. 12; Lamb, Arlett, Dales, Ditchfield, Parkin, & Wakeham, 2010, pp. 11–12). The CBI Higher Education Task Force (2009), for instance, has listed language skills as an important part of the competences required for graduates “in an increasingly globalised workplace” (p. 6). International economic relations of companies, thus, fuel employers' demand for a

communicatively competent workforce. This communicative competence mainly encompasses English language skills, as English is widely spoken in today's world (cf. Kachru as cited in Crystal, 2003, p. 61). English is also the *lingua franca* (cf. Jenkins, 2007; Prodromou, 2008; Seidlhofer, 2001) for global trade and business, thus student interns and graduates are likely to encounter communicative events they need to master in English, which is not necessarily their native language.

The communication needs of employees in professional engineering settings have been analysed from various angles. In the United States, Darling and Dannels (2003) surveyed 123 practising mechanical engineers in industry and concluded that the engineering workplace is an "oral culture" (p. 12). They found that "speaking skills were more important than writing by a good measure" (p. 12), but based on their written interview responses they acknowledged that "engineers, like other professionals, must be able to write and write well" (p. 12). Likewise, Vest, Long, and Anderson's (1996) survey of 243 US-trained electrical engineers revealed that respondents spent more than half of their work time communicating, with the predominant mode of face-to-face communication inside the organisation (p. 39). Kassim and Ali (2010, p. 175) investigated English communicative events and skills encountered by 65 engineers at multinational chemical companies in Malaysia and reported that the productive skills of speaking and writing had been rated as most important, while reading had received the lowest ratings (cf. Dannels, 2002, p. 256). In contrast to those studies among experienced engineers, Sageev and Romanowski (2001) approached the question of communication needs in industry from the perspective of recent engineering graduates from the State University of New York at Buffalo. Their survey comprised 193 responses from a range of engineering disciplines and revealed that writing consumed the highest average percentage of work time (32%) compared to oral discussions (22%) and oral presentations (10%) (p. 687). Another perspective has been adopted by Crosling and Ward (2002), who surveyed 24 employers of business graduates from Monash University, Australia, and reasoned that "oral communication is important and frequent" (p. 53). Even though their study focuses on business and commerce, it still represents an interesting comparison with engineering workplace settings.

Industry demands on engineers' core competences almost unanimously include communication skills. A high-ranking industry representative from Rockwell International Corporation, for example, listed verbal and written communication skills at the top of competencies that are important for engineers (Black, 1994, p. 27). The former Chief Executive Officer of Boeing Phil Condit advocated four skills, labelled the "4 Cs", which

engineers need at work: collaboration, communication, cost awareness and continuous learning (Gorman et al., 2001, p. 144). In a study conducted by a curriculum development team at Arizona State University, industry and alumni rated communication skills as the second-most important attribute of graduates from bachelor in engineering programmes, only behind the attribute *problem recognition and solution skills* (Evans, Beakley, Crouch, & Yamaguchi, 1993, p. 205; cf. Lang, Cruse, McVey, & McMasters, 1999, p. 47). Similarly, engineering professionals interviewed by Katz (1993, p. 172) stated that entry-level engineers required the ability to work on a team and to communicate well (cf. Denton, 1998, p. 21; Koehn, 1995, p. 246; Piirto, 2000, p. 21; The Royal Academy of Engineering, 2007, p. 9; Seat, Parsons, & Poppen, 2001, p. 7).

These studies predominantly focus on communication skills in English by English native speakers, whereas the dimension of using English as a Lingua Franca (ELF) in technical contexts places further linguistic demands on non-native speakers. Platzer and Verdonk (2011) have investigated the role of English in the workplace in Austria as experienced by mature in-service business and engineering students enrolled at the University of Applied Sciences Wiener Neustadt: “Of the 246 students polled in 2008, 165 (67%) said they used English at work, with more Engineering students (76%) making that claim than Business students (59%)” (p. 11). These results clearly exemplify the significance of English for professional purposes in a country where English is not spoken by the majority of the population as a native language. The CILT (2006) study conducted among enterprises on a European scale, however, revealed differences between the languages used by large companies on the one hand and small and medium-sized companies on the other, with the former clearly identifying English as a language in need of improvement, whereas the latter tended to require a more diverse language portfolio (pp. 44–45).

A more detailed look at English language skills used in engineering workplaces offers insights into predominant sub-skills and communicative events. Concerning written communication skills, Winsor (1998) has argued that writing by engineers tends to fall into two categories: fragmentary texts for documentation within departments and extended prose reports addressed to management (p. 366). Kassim and Ali (2010) have identified report writing and proposal writing as the most frequent events for engineers, followed by preparing presentation slides, minutes of meetings, memoranda and formal letters (pp. 177–178).

With respect to spoken interaction skills, Winsor (1998) has emphasised the significance of “group oral interpretation of instrument traces in the creation of technical knowledge” (p.

366), which means work-related discussions and analyses with colleagues. Such interpretations are likely to take place in laboratory, production line or test settings, where hardware and machinery form the centre of engineers' immediate attention. Darling and Dannels (2003) have concluded that formal presentations are less typical for practising engineers than informal communication events but they are nevertheless important (p. 13). They have further noted that, as the most urgent area of need, engineers are faced with "the interpersonal communication dynamics of operating successfully on teams" (p. 13), although they interact with diverse and complex audiences (pp. 11, 13; cf. Kassim & Ali, 2010, p. 173). Vest, Long, & Anderson (1996, p. 39), for instance, have found that the engineers they surveyed spent 58% of their time communicating with other employees involved in the same project as the respondent, while the remaining communication time was almost equally distributed between other individuals inside and outside of the organisation (cf. Sageev, Prieto, & Smaczniak, 1992, p. RT 6.2/110). In a similar vein, Dannels (2002) has suggested that oral communication skills for an engineer mean "translating different languages into one voice – focused either on the internal audience of engineers (visual, results-oriented, numerical) or the external, lay audiences (simple, persuasive)" (p. 264). Kassim and Ali (2010) have discovered that teleconferencing was the most used oral communication event in English, followed by informal work-centred discussions and meetings; holding oral presentations; networking; the presentation of new ideas or strategies; external correspondence; and instructing, explaining and demonstrating (p. 177).

In the literature on engineering workplace communication reviewed, the authors did not come across any investigations into the English language skills and communication needs of interns during industrial placements. The communicative events encountered by students in their internships remain an under-researched area. It needs to be remembered here that practising engineers, who form the main focus of the literature reviewed, differ from engineering interns in several respects. Engineering interns, for example, have a lower professional status than practising engineers in hierarchically organised companies. Even in flat organisational forms, as newcomers, they still need to earn the respect of their colleagues, which automatically puts them into a weak position. On the other hand, as interns, they also enter a company as part of their educational programme from a university or college, so that their special status is acknowledged by all stakeholders through a formal contract. In any case, unlike practising engineers, engineering interns probably do not write patent applications and project proposals, they do not publish research results, they do not lead projects and they may not actively participate in decision-making meetings, among other things. They find themselves in less

responsible positions than their regular workplace colleagues, and they usually perform their duties under the supervision of a company employee. The special status of engineering interns and the unique setting of internships as meeting grounds of workplace training and tertiary education merit an investigation into the particularities of English as a foreign language use in such environments.

1.2 Institutional background

The FH Joanneum University of Applied Sciences, Graz, Austria, hosts a range of 40 different degree programmes at bachelor's and master's level in such diverse fields as engineering, design, business, health sciences, social work and journalism. As a university of applied sciences, FH Joanneum maintains strong ties with industry, for instance in the form of joint research and development projects. In the field of teaching, contracted lecturers from national and international partner companies also hold lectures at the university besides internal faculty members. Furthermore, all degree programmes include a mandatory internship for their students, ranging from a few months to a full semester per programme.

As a consequence, the bachelor's Degree Programme in Aviation and the Degree Programme in Automotive Engineering at FH Joanneum both integrate student placement periods into their curricula. The final year of the three-year Bachelor of Science in Engineering curriculum hosted by the Institute of Aviation includes a mandatory 12-week internship which carries 20 European Credit Transfer and Accumulation System (ECTS) points. Likewise, the final year of the four-year engineering programme offered by the Institute of Automotive Engineering contains a 15-week placement period worth 30 ECTS points. Both degree programmes also provide credit-bearing English for Specific Purposes (ESP) courses for improving their students' language proficiency. The Degree Programme in Aviation accommodates five ESP courses of 2 ECTS credits or 30 term hours per week each prior to the internship period, and the Degree Programme in Automotive Engineering offers four to five ESP courses of the same scale before the internship.

In both degree programmes, students tend to make contact with lecturers employed in industry to prepare their internships through the courses they attend. Students also send unsolicited applications for placements to companies of their interest, as, in the end, it is their responsibility to find an appropriate firm. This concept, thus, fosters initiative, free choice and

motivation, so that students generally adopt a positive attitude and look forward to their internship periods.

The internships in the Degree Programme in Aviation and the Degree Programme in Automotive Engineering also often lead to a renewal of the work contract for the subsequent final semester of study, when learners need to complete their bachelor's or graduation thesis at a company. During this period, students are employed as graduands and work on a topic emerging from current industry requirements, while they are assisted by a company supervisor and an academic supervisor at the university of applied sciences. The continuation of an internship to a thesis supervision phase at the same company is encouraged by the Institutes of Aviation and Automotive Engineering, but it is not mandatory. Students are free to select different companies for internships and thesis periods but are obliged to complete both phases in industry under university supervision.

1.3 Rationale

This article is based on the rationale that investigating students' English language use during their industrial placement periods will allow inferences to be made regarding the language needs of entry-level engineers, so that the researchers can best prepare learners for the linguistic demands encountered in the workplace. Such demands arise on the mandatory internships integrated into the degree programmes, during the thesis supervision phase and upon graduates' entry into the employment market. This investigation, hence, represents a needs analysis of aeronautical and automotive engineering students and graduates with respect to communicative events in ELF working environments. The results of this study should contribute towards a better understanding of current linguistic requirements encountered by engineering students and graduate engineers in industry-specific employment situations.

1.4 Research questions

The present article investigates the English language use by aeronautical and automotive engineering interns during their placement periods in industry. More concretely, it attempts to answer the following research questions:

1. What are the most difficult language skills and communicative events encountered in professional internships by aeronautical and automotive engineering students?

2. Are there perceived differences in the use of language skills and communicative events in professional internships between aeronautical and automotive engineering students?

The answers to these research questions will be compared to findings in the literature and are expected to provide insights into necessary adaptations and preparatory measures for course design and materials development.

2 Methods

The authors designed a questionnaire survey to gather data on engineering students' English language use in professional internships. The survey consisted of 4 questions on personal data, 7 questions on company data and 25 questions on company-related English language use. The free-text fields on personal data and company data required brief free text answers by the respondents, whereas the questionnaire's main part on company-related English language use applied a five-point Likert scale (0 = *not used*; 1 = *seldom used*; 2 = *sometimes used*; 3 = *often used*; 4 = *very often used*) for each item. The main part was further subdivided into the categories *Skills Ranking*, *Writing*, *Reading* and *Spoken Interaction*. In addition to rating each communicative event within these categories, respondents were asked to identify the most difficult item per category. The categories of *Writing*, *Reading* and *Speaking* also allowed respondents to include an item not listed on the survey but encountered during the internship period. Appendix B reproduces the survey sheet.

The questionnaire was distributed in paper format to an automotive engineering student year group at the end of their placement period in February 2012 and in electronic format as a Microsoft® Word® document to an aeronautical engineering student year group towards the end of their placement period in June 2012. The different formats for surveying those year groups were necessitated by the fact that at the end of the internship period, only the automotive engineering students were physically present at the university, whereas the aeronautical engineering students could only be reached through emails.

SPSS® Statistics 17.0 (Released 2008) was used for data analysis. The data on the participants' background were analysed by means of descriptive statistics, as was the first research question related to the most difficult communicative events encountered in professional internships. The second research question on the perceived differences in the use of communicative events in professional internships between aeronautical and automotive

engineering students was analysed statistically (*t*-test), and significant results were depicted graphically.

3 Results

The results of the survey are presented in three parts. The first part describes the participants, the second part treats the first research question and the third part depicts the answers to the second research question.

3.1 Participants

The sample surveyed consisted of 46 students, with 32 respondents from the Institute of Automotive Engineering and 14 respondents from the Institute of Aviation. The difference in the size of the sub-samples stems from larger year group sizes in the Institute of Automotive Engineering and the fact that the respondents in the Institute of Aviation received mailed questionnaires, meaning that not the whole year group participated in the survey. Table 1 shows the descriptive statistics for the biographical variables of the sample. The age of the participants was 24.6 years on average, with a rather homogeneous distribution in the Institute of Aviation and one somewhat older student (37 years) in the Institute of Automotive Engineering. In terms of gender, the sample was predominantly male with only five female students in total. The major nationality of the participants was Austrian, with one German and one Slovak student. Correspondingly, the first language of the majority of students was German, except for the Slovak native speaker. The country where most internships took place was Austria, followed by Germany and Switzerland. A substantial portion of the respondents from the Institute of Automotive Engineering used German only as a working language during their internships, whereas most respondents in both institutes used German and English and one student in the Institute of Aviation also spoke French in addition to German and English. Appendix A contains tables showing the company names where the internships took place (Table 7) and the main topics treated (Table 8).

Table 1: Descriptive statistics for biographical variables

VARIABLE	INSTITUTE	<i>M</i>	<i>Mdn</i>	<i>SD</i>	<i>MIN</i>	<i>MAX</i>
Age (in years)	Automotive Engineering	25.6	24	3.5	22	37
	Aviation	22.4	22	0.9	21	24
	Total	24.6	23.5	3.3	21	37
VARIABLE	CHARACTERISTIC	SAMPLE FREQUENCIES				
		Institute of Automotive Engineering	Institute of Aviation	Total		
Gender	male	28	13	41		
	female	4	1	5		
Nationality^a	Austrian	30	13	43		
	German	1	0	1		
	Slovak	0	1	1		
First language	German	32	13	45		
	Slovak	0	1	1		
Country of internship	Austria	27	7	34		
	Germany	5	6	11		
	Switzerland	0	1	1		
Working language(s) used	(only) German	11	2	13		
	English & German	21	11	32		
	English, German, & French	0	1	1		

Note. $N=46$; Automotive Engineering $n=32$; Aviation $n=14$; M =arithmetic average; Mdn =Median; SD =Standard deviation; MIN =minimum in sample; MAX =maximum in sample

^amissing values because of nonresponse: $n=1$

3.2 The most difficult communicative events and skills

The first research question on the most difficult communicative events encountered by aeronautical and automotive engineering students in professional internships was answered by means of descriptive statistics. The results are presented as ranked frequencies for each category of company-related English language use on the questionnaire. Table 2 shows the overall ranking for the most difficult skill as perceived by respondents from both institutes.

Table 2: Overall ranking for the most difficult skill in company-related English language use

SKILL	SAMPLE FREQUENCIES					
	Institute of Automotive Engineering ^a		Institute of Aviation ^b		Total ^c	
Writing	5	(35.7 %)	6	(46.2 %)	11	(40.7 %)
Spoken Interaction	5	(35.7 %)	4	(30.8 %)	9	(33.3 %)
Reading	1	(7.1 %)	3	(23.1 %)	4	(14.8 %)
Skills not used	3	(21.4 %)	0	(0 %)	3	(11.1 %)

Note. $N=46$; Automotive Engineering $n=32$; Aviation $n=14$

^amissing values because of nonresponse: $n=18$; ^bmissing values: $n=1$; ^cmissing values: $n=19$

Students from both institutes perceived writing (11 answers) and spoken interaction (9 answers) as the most difficult English language skills employed during their internship

periods. It is also interesting to note that three automotive engineering students had not used any of the English language skills during their industry placements.

Table 3 depicts the ranking for the most difficult writing skill as perceived by respondents from both institutes.

Table 3: Ranking for the most difficult writing skill in company-related English language use

WRITING SKILL	SAMPLE FREQUENCIES					
	Institute of Automotive Engineering ^a		Institute of Aviation ^b		Total ^c	
Technical reports	3	(18.8 %)	4	(40 %)	7	(26.9 %)
Instruction manuals	3	(18.8 %)	3	(30 %)	6	(23.1 %)
Emails	4	(25 %)	1	(10 %)	5	(19.2 %)
Quality documents	1	(6.3 %)	0	(0 %)	1	(3.8 %)
Bachelor thesis	0	(0 %)	1	(10 %)	1	(3.8 %)
Skill not used	5	(31.3 %)	1	(10 %)	6	(23.1 %)

Note. N=46; Automotive Engineering n=32; Aviation n=14

^amissing values because of nonresponse: n=16; ^bmissing values: n=4; ^cmissing values: n=20

For students of Aviation, technical reports (4 answers) and instruction manuals (3 answers) were perceived as the most difficult writing events encountered during their internships. For

students of the Institute of Automotive Engineering, however, writing emails (4 answers) was the most difficult writing skill. It is again noteworthy that five automotive engineering students did not write in English during their industry placement.

Table 4 presents the ranking for the most difficult English reading skill used by students from both institutes.

Table 4: Ranking for the most difficult reading skill in company-related English language use

READING SKILL	SAMPLE FREQUENCIES					
	Institute of Automotive Engineering ^a		Institute of Aviation ^b		Total ^c	
Industry standards and regulations	3	(21.4 %)	5	(45.5 %)	8	(32 %)
Instruction manuals	5	(35.7 %)	0	(0 %)	5	(20 %)
Internal company reports, documents	1	(7.1 %)	2	(18.2 %)	3	(12 %)
Company policy statements	1	(7.1 %)	1	(9.1 %)	2	(8 %)
Subject-specific books	1	(7.1 %)	1	(9.1 %)	2	(8 %)
Scientific articles	0	(0 %)	1	(9.1 %)	1	(4 %)
Internal company reports, documents	0	(0 %)	1	(9.1 %)	1	(4 %)
Skill not used	3	(21.4 %)	0	(0 %)	3	(12 %)

Note. N=46; Automotive Engineering n=32; Aviation n=14

^amissing values because of nonresponse: $n=18$; ^bmissing values: $n=3$; ^cmissing values: $n=21$

Automotive engineering students found reading instruction manuals (5 answers) most difficult, whereas students from the Institute of Aviation regarded the reading of industry standards and regulations in English as most demanding (5 answers). Three students from the Institute of Automotive Engineering were not required to read English materials at all.

Table 5 shows the ranking for the most difficult spoken interaction skill used by students during their industry placements.

Table 5: Ranking for the most difficult spoken interaction skill in company-related English language use

SPOKEN INTERACTION SKILL	SAMPLE FREQUENCIES					
	Institute of Automotive Engineering ^a		Institute of Aviation ^b		Total ^c	
Formal face-to-face conversations	2	(16.7 %)	6	(50 %)	8	(33.3 %)
Telephone calls	2	(16.7 %)	1	(8.3 %)	3	(12.5 %)
Informal face-to-face conversations	1	(8.3 %)	2	(16.7 %)	3	(12.5 %)
Skill not used	7	(58.3 %)	3	(25 %)	10	(41.7 %)

Note. $N=46$; Automotive Engineering $n=32$; Aviation $n=14$

^amissing values because of nonresponse: $n=20$; ^bmissing values: $n=2$; ^cmissing values: $n=22$

In total, eight students experienced formal face-to-face conversations as the most difficult spoken interaction skill in English during their internships. However, seven automotive engineering students did not use spoken interaction skills in English at all when they worked at a company, which is an important difference compared to only three aviation students who did not use this skill.

3.3 Differences in the use of communicative events and skills

The second research question on perceived differences in the use of communicative events and skills in professional internships between aeronautical and automotive engineering students yielded results that were analysed by means of inferential statistics. Table 6 shows the results of this analysis.

Table 6: Independent samples *t*-test for the most frequently used skills and communicative events

SKILLS		INSTITUTE					
		AUTOMOTIVE ENGINEERING		AVIATION		<i>df</i>	<i>t</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
OVERALL	Writing	1.7	1.2	2.9	1.3	44	-3.01**
	Reading	2.4	1.3	3.4	0.9	44	-2.62*
	Spoken interaction	1.4	1.2	2.1	1.4	44	-1.54
WRITING	Emails	1.4	1.3	2.2	1.6	44	-1.85
	Presentation slides	1.6	1.5	2.1	1.6	44	-0.98
	Technical reports	1.7	1.5	2.7	1.6	44	-2.09*
	Instruction manuals ^a	1.5	1.7	2.1	1.7	43	-1.03
	Letters and faxes ^a	0.4	0.7	1.4	1.8	14.63	-2.18*
READING	Internal company reports and documents	1.6	1.5	2.9	1.5	44	-2.82**

	Instruction manuals^a	1.9	1.7	2.9	1.2	35.53	-2.21*
	Company policy statements^a	1.3	1.5	1.5	1.7	43	-0.49
	Subject-specific books^a	1.5	1.4	3.1	1.0	35.28	-4.11***
	Industry standards and regulations^a	1.6	1.2	2.3	1.5	43	-1.61
	Emails	1.5	1.3	2.4	1.7	19.35	-1.60
	Web sites	2.2	1.4	3.0	1.3	44	-1.77
	Letters and faxes^a	0.3	0.7	1.4	1.6	15.42	-2.32*
SPOKEN INTERACTION	Presentations	0.8	1.1	1.4	1.5	44	-1.47
	Telephone calls	0.8	1.2	1.2	1.4	44	-0.91
	Telephone conferences^a	0.6	1.1	1.2	1.3	43	-1.53
	Video/Skype conferences^a	0.3	0.9	0.4	0.9	43	-0.60
	Formal face-to-face conversations	1.0	1.2	1.9	1.5	44	-2.19*
	Informal face-to-face conversations^a	1.5	1.5	2.4	1.7	43	-1.67

Note. $N=46$; Automotive Engineering $n=32$; Aviation $n=14$; M =arithmetic average; SD =Standard deviation; df =degrees of freedom; t =t-value

^amissing values because of nonresponse: $n=1$ Automotive Engineering sample

*** $p<.001$, ** $p<.01$, * $p<.05$

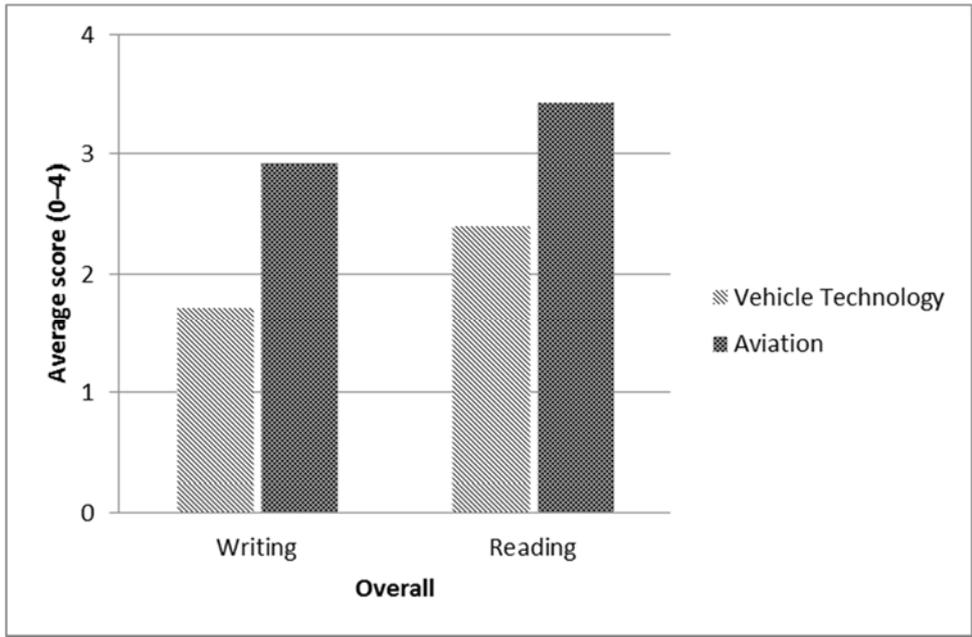


Figure 1: Significant differences in the overall skills category

In the overall skills category (Figure 1), the results reveal a significant difference in the frequency of *Writing* between the institutes of Automotive Engineering and Aviation ($t(44)=-3.01, p=.004^{**}$), with aviation students using more writing than automotive engineering students. The differences in the frequency of *Reading* are significant ($t(44)=-2.62, p=.012^{*}$), again pointing to a wider use of reading skills in the aviation sample.

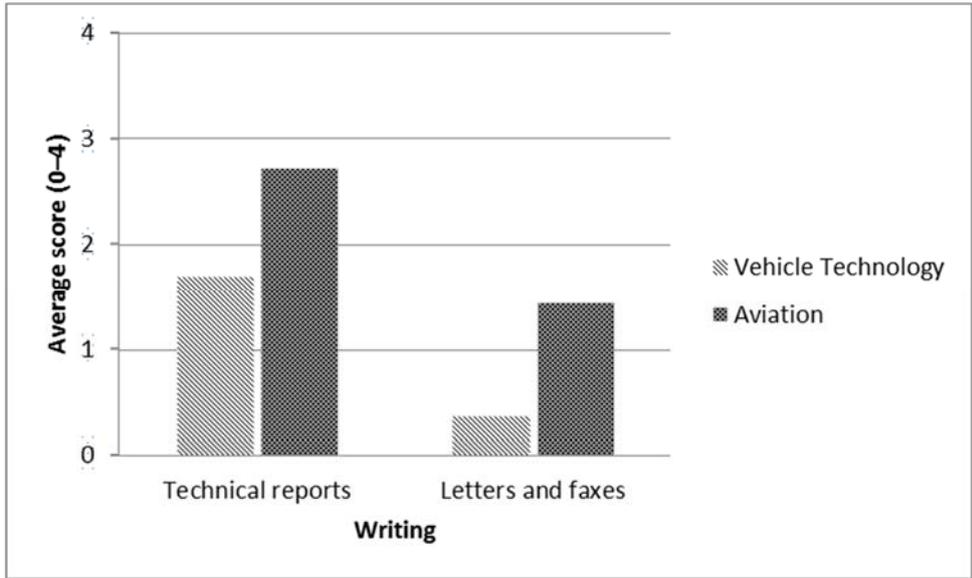


Figure 2: Significant differences in the writing skills category

The writing skills category (Figure 2) shows differences at the 0.05 level of significance in the frequency of writing *Technical reports* ($t(44)=-2.09, p=.043^*$) as well as *Letters and faxes* ($t(14.63)=-2.18, p=.046^*$). Students in the Institute of Aviation were required to write more technical reports and letters and faxes than their colleagues in the Institute of Automotive Engineering, which again constitutes an important difference.

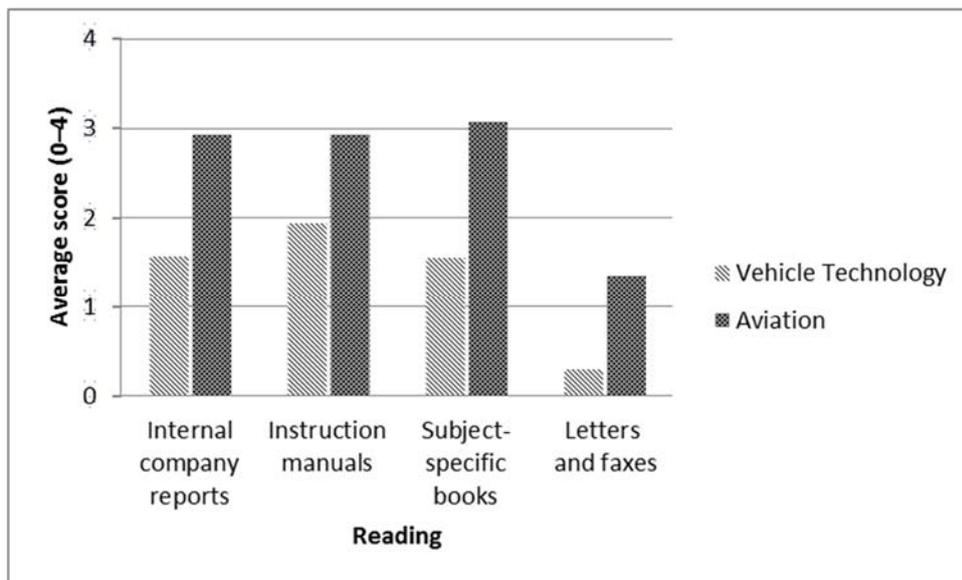


Figure 3: Significant differences in the reading skills category

In terms of reading skills (Figure 3), the differences between the two institutes were highly significant for *Subject-specific books* ($t(35.28)=-4.10, p=.000^{***}$) and significant for *Internal company reports and documents* ($t(44)=-2.82, p=.007^{**}$). Significant differences could be detected for *Instruction manuals* ($t(35.53)=-2.21, p=.034^*$) and *Letters and faxes* ($t(15.42)=-2.32, p=.034^*$). As in the writing category, the concrete reading skills and communicative events described had occurred more often in the aviation sample than in the automotive engineering sample.

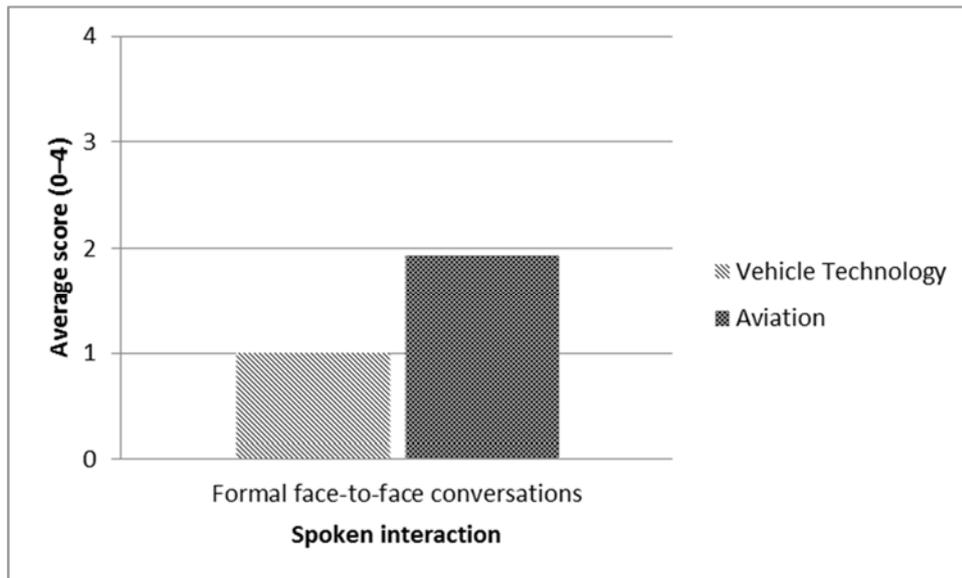


Figure 4: Significant difference in the spoken interaction skills category

The spoken interaction category (Figure 4) revealed only a single significant difference at the 0.05 level of significance, and that is for *Formal face-to-face conversations* ($t(44)=-2.19$, $p=.034^*$), which had been used more frequently by aviation students.

4 Discussion

4.1 Discussion of methods

As standardised questionnaires are not available for the specific context of this investigation, the researchers were forced to tailor-make the survey instrument for their purpose. The instrument measures what it is supposed to measure, and that are students' perceptions of the difficulty of communicative events and differences in language use between the institutes involved. Among other aspects, the validity of such an instrument depends on the clarity of formulations, the organisation of items and its layout. The clarity and organisation of items as well as the layout were cross-checked by three applied linguists and one psychologist. It is also probable that research participants would respond similarly to the same questions on the survey under repeated cycles of data collection (cf. Phakiti, 2010, p. 42).

Statistically, the two samples surveyed were not of equal size, which may be considered problematic from a purely empirical perspective. The reason for the different sample sizes is the fact that the automotive engineering degree programme accommodates larger student

cohorts than the aeronautical engineering programme. Another challenge was the large number of missing values because of nonresponse (ranging from 41.3% to 47.8%) in the automotive engineering sample related to the identification of the most difficult communicative events on the questionnaire. Maybe, students were not aware that they had to tick a box on the survey sheet in order to mark a single most difficult skill or communicative event in each skills category. They may have simply overlooked the box or not have read the instructions for completing the questionnaire. Alternatively, they may have chosen not to tick a box because they did not find any of the skills or communicative events difficult. In any event, valuable information for the study was lost in this way, yet on the other hand, these missing values reduced the difference in the size of the two samples, so that there were almost an equal number of answers from both groups, which made the results statistically comparable again.

4.2 Discussion of results

The first research question on the most difficult communicative events encountered by aeronautical and automotive engineering students allows for some interesting interpretations. The fact that engineering interns in the sample perceived writing (11 answers) and spoken interaction (9 answers) as the most difficult English language skills used during their internship periods bears a certain resemblance to findings from the literature. Sageev and Romanowski (2001, p. 687), for instance, identified writing as the dominant communicative skill of practising engineers. It is, therefore, legitimate to assume that interns in the present survey were faced with writing demands as a frequent feature of the engineering workplace and, as non-native speakers of English, encountered difficulties with writing as a productive language skill. The second-most difficult skill named by engineering interns, spoken interaction, allows for a similar interpretation. Industry feedback in the literature emphasises the importance of oral communication in engineering workplaces (Crosling & Ward, 2002, p. 53; Darling & Dannels, 2003, p. 12; Kassim & Ali, 2010, p. 175; Vest, Long, & Anderson, 1996, p. 39). Like writing, spoken interaction is a productive skill and as such more demanding than receptive skills. Moreover, spoken interaction includes both speaking and listening and may be termed a compound skill, which could also have contributed to its ranking as the second-most difficult skill. Furthermore, spoken interaction in an ELF setting may put additional strain on non-native speakers of the language (cf. Tatzl, 2012).

The writing of technical reports was identified as the most difficult writing sub-skill or communicative event in the survey (7 answers), which is comprehensible, as technical reports represent a very formal genre and require a high level of linguistic accuracy and the precise use of technical vocabulary in a specific context. Respondents in Kassim and Ali's (2010) study regarded report writing and proposal writing as the most important writing skills for engineers (p. 177). Even though difficulty and importance are not directly comparable categories, prestigious or high-stakes genres may also increase their perceived level of difficulty for interns. Instruction manuals (6 answers) were named as the second-most difficult writing event by students from both institutes. This may be due to the particularities involved in this text type, such as step-by-step descriptions of processes and actions for a diverse target readership. The major target groups of instruction manuals may be twofold, in fact, with company employees as an internal group who need to use a certain piece of equipment or follow a process and with end consumers of a product as an external group who expect a simple user's guide for a complex technical device. The category of instruction manuals, thus, can be subdivided into internal instruction manuals and external user's guides. Apart from the target groups, both genres further differ in the level of technical language employed, with a high share of subject-specific linguistic features for internal instruction manuals and the need to explain the operation of a device in more general terms for external user's guides.

A further interesting aspect revealed by this survey is that, in contrast to the total sample results, students of the Institute of Automotive Engineering ranked the writing of emails (4 answers) as the most difficult writing skill instead of writing technical reports. This is startling, as emails have become a widespread form of general and business communication, so that students can be expected to be familiar with the genre as such. However, emails tend to vary in their level of formality with a tendency towards casual business style for most correspondence in the authors' experience. Writing emails in English, therefore, may be demanding for student interns because they need to find exactly the right tone for a certain purpose, recipient and situation. They may have difficulties in negotiating the nuances of formal and informal register in a foreign language. This includes questions of how to address the recipient, how to vary professional distance and how to communicate a clear message.

In the reading skills category, automotive engineering students found reading instruction manuals (5 answers) most difficult, whereas students from the Institute of Aviation identified the reading of industry standards and regulations in English as most challenging (5 answers). This difference in the ranking may stem from the fact that the aeronautical industry tends to

be more heavily regulated than the automotive industry, with a constantly revised and expanding stock of certification, maintenance, quality and safety documents issued by authorities and professional bodies. Industry standards and regulations form very interesting but also bureaucratic genres with sector-specific subgenres. Readers unfamiliar with such documents may find it difficult to identify the passages relevant to their immediate professional needs and interpret the implications of certain rules or standards for their work. It is, therefore, understandable that student interns had difficulties with such texts during their internships.

Findings in the literature stress the dominance of informal oral communicative events in the engineering workplace (Darling & Dannels, 2003, pp. 12–13; Kassim & Ali, 2010, p. 177; Sageev & Romanowski, 2001, p. 688), but informal spoken interaction skills posed no perceived challenges to engineering interns surveyed. On the contrary, eight students in total regarded formal face-to-face conversations as the most difficult communicative event in the category of spoken interaction. This result may be explained by the social and contextual factors involved in such conversations. Formal face-to-face conversations are higher-stakes situations than informal talks, as the reasons for the formality may lie in hierarchical differences between the interlocutors, professional differences with high- and low-prestige occupations or economic interests in the form of company-customer relations. Often, financial concerns also play a role in formal conversations. The choice of the right tone and register may create challenges for interns here, but also the confident handling of discourse strategies, politeness markers and attentive listening are important. Furthermore, non-native interns may feel intimidated by the required pace of spoken exchanges, fluency, word stress, intonation and pronunciation (cf. Tatzl, 2012). All in all, oral ELF communication in formal situations is a demanding sub-skill.

While practising engineers in Vest, Long, and Anderson's (1996) study had reported that in-house communication was predominantly face-to-face and communication outside the company took place mostly by telephone (p. 39), the picture seemed to have changed by the time of Kassim and Ali's (2010) investigation, where teleconferencing was listed as the most frequently used oral communicative event by engineers (p. 177). However, among engineering interns surveyed in this investigation, neither telephoning nor teleconferencing was identified as difficult, and inferential statistics yielded no significant differences in the use of either communicative event between the automotive and aeronautical engineering samples. This fact may hint at a closer contact of engineering interns with company-internal

conversation partners and audiences than with external ones, as the telephone and teleconferencing media are more likely to be used for communication outside an organisation.

It is noteworthy that in the sample from the Institute of Automotive Engineering three students did not use any English language skills, five students did not write in English and three students did not have to read English materials during their internships. In the total sample from both institutes, there were ten students who did not use spoken interaction skills at all. There is, therefore, a certain albeit small possibility that interns may not use English in the workplace, although this picture may quickly change when they enter the regular engineering workforce after graduation.

The main answer to the second research question on perceived differences in the use of communicative events and skills in professional internships emerging from this study is that aeronautical engineering interns employed significantly more writing and reading skills than their peers placed in the automotive industry. This is startling, as the automobile sector is a truly international business.

This trend continues throughout the analysis of students' answers in the sub-skills categories. Aviation students needed to write more technical reports and letters and faxes. Aviation students also had to read subject-specific books and internal company reports and documents more often than their automotive engineering peers, which seems to imply that the internship experience of the students placed in the aeronautical industry was more research-grounded than that of the automotive interns. The reading of instruction manuals and letters and faxes by aviation students may be just a consequence of the general trend, as it is difficult to detect specific causes for this difference between the samples. The fact that aeronautical engineering students were also more frequently involved in formal face-to-face conversations than automotive engineering students is again difficult to interpret. A speculative answer may be that the aerospace sector has the reputation of being a rather conservative industry, which may have repercussions on the use of rather formal and traditional genres, such as letters and faxes, as well as formal oral communication.

The results generated in this study allow for tentative interpretations. The sample sizes are rather small, there were a large number of missing values because of nonresponse in the automotive engineering sample, and there are several confounding factors that reduce the validity of interpretations. Such factors mainly stem from the complexity of environmental constellations that interns are faced with during industrial placements. It is almost impossible to speak of *the* automotive industry or *the* aviation industry as a consistent whole with neat

common features. Quite on the contrary, different companies within the same sector may show considerable variation in company policy, market activity and internal culture. Such differences may further exist between plants, departments and offices, and the constellation of project or working teams adds a unique flavour to each internship experience. It remains, therefore, possible and even probable that students might have encountered divergent communicative events within the same company, depending, for example, on their departmental affiliation.

5 Recommendations

The rather small sample sizes and large number of missing values because of nonresponse in the larger sub-sample complicate the drawing of conclusions. Furthermore, the results are generalisable to internship experiences in automotive or aeronautical industry contexts with care and must be interpreted with the language needs of this specific sample in mind.

Nevertheless, there is room for extending the insights gained from this study. A first extension is possible because future student cohorts from the institutes of Automotive Engineering and Aviation are likely to have received a similar tertiary educational programme prior to their internships, and they are likely to embark on industrial placements in similar contexts to those of the students from this sample. The results of this study, therefore, are applicable to future year groups of FH Joanneum's automotive and aeronautical engineering students to some extent. A second extension is possible because interns in similar educational contexts will encounter similar internship experiences, even though they may not be exactly the same as the ones detected through this investigation. The language needs of this study's interns, then, may provide stimulating comparisons with the communicative situations of interns from other higher education institutions. Internship experiences of technical students are an under-researched field that commands closer scholarly attention and scientific efforts from language teaching and linguistics in order to optimally prepare students for their first contacts with industry. There are, therefore, certain points worth mentioning that have emerged from this investigation, which the authors have formulated as recommendations for preparing interns in similar contexts for their industrial placements.

The authors have derived five concrete recommendations from this study for teaching future student cohorts from their institution and other technical students in similar educational contexts. First, writing, spoken interaction and reading were ranked in that order in terms of difficulty by respondents, from most to least difficult. English language instruction, thus,

should put a strong emphasis on writing and spoken interaction, not neglecting the fact that reading affects the former considerably.

Second, interns identified writing technical reports, instruction manuals and emails as difficult communicative events. This means that English language teachers should focus on these genres in order to cater for students' likely needs during internships and, possibly, as graduate engineers. Formal technical writing is demanding, and so is the variability of email styles depending on purpose, recipient and situation. Students seem to need considerable professional support in developing linguistic competence in these genres.

Third, formal face-to-face interaction deserves more pedagogical attention (cf. Darling & Dannels, 2003, p. 7). In accordance with industry demands, it is interesting to observe that engineering and business students seem to favour language learning through oral communication (cf. Trinder, 2013, p. 9), which encourages the adoption of a communicative approach by English teachers. Such a suggestion is supported by Kassim and Ali (2010), who have reasoned that "more emphasis should be given to speaking skills" (p. 180). Similarly, Platzer and Verdonk (2011) have argued that in Europe organisation in group classes "still seems to be the preferred way of language learning, despite the high hopes for e-learning" (p. 9). In the context of international education, Teekens (2004) has clearly demanded that "ICT [information and communication technologies] should never become an excuse for avoiding face-to-face contact" (p. 62). Nevertheless, oral communication among practising engineers referred to in the literature often means informal communication (Darling & Dannels, 2003, pp. 12–13; Kassim & Ali, 2010, p. 177; Sageev & Romanowski, 2001, p. 688), but the results of this study suggest that formal spoken interaction causes more difficulties for automotive and aeronautical engineering interns.

Fourth, reading instruction manuals as well as industry standards and regulations may prove helpful for students as preparatory measures for their internships. This seems only logical, as the automotive and particularly the aviation industries are heavily regulated economic sectors. Professional reading instruction at university, hence, may facilitate students' use of such documents during their placements.

Fifth, the diversity of companies, departments and project groups prohibits clear and universally applicable recommendations. This awareness needs to be cultivated in order to pay due respect to the individuality of organisations and their employees, project partners and business associates. Bearing this recognition of cultural diversity in mind, the authors would like to highlight that students do need linguistic support at university and recommend that

learners can benefit from such support in order to become more confident in professional English language use during internships. Demanding situations should be identified by teachers, and learners should be trained to overcome the challenges of difficult skills, sub-skills and communicative events by means of didactic intervention.

6 Conclusions

In order to prepare students for the diversity of audiences in the workplace (cf. Darling & Dannels, 2003, p. 11; Sageev & Romanowski, 2001, p. 690), Crosling and Ward (2002) have recommended skills training “related to cross-cultural, gender, generational, and status group communication” (p. 56). Even though the present investigation did not explicitly yield supportive evidence of such advice, it still seems sensible to take these aspects into consideration as well. After all, today’s engineering professionals operate on a global scale, which brings them into close contact with culturally diverse interlocutors. Furthermore, gender awareness and generational sensitivity are not only politically correct but professional necessities and questions of respect. Finally, status group communication is important from an applied linguistics angle, as hierarchy and prestige influence such aspects as tone, formality, politeness, register and distance in written email correspondence as well as formal face-to-face interaction.

This study among Austrian automotive and aeronautical engineering interns answered the two initial research questions. It provided insights into the most difficult skills, sub-skills and communicative events encountered by respondents in the sample, and it showed a certain tendency towards more frequent English language use by aeronautical than automotive engineering interns. This investigation, therefore, contributed to a better comprehension of student interns’ needs during industrial placements in automotive and aeronautical companies. It further attempted to draw closer scholarly attention to a yet under-researched field.

Acknowledgements

We would like to thank both student cohorts who found the time to participate in this survey.

Compliance with ethical standards

Research involving Human Participants and informed consent.

Appendix A: Internship details

Table 7: Company name (where internship took place)

INSTITUTE OF AUTOMOTIVE ENGINEERING	FREQUENCY
• AUDI AG	2
• AVL List GmbH	9
• Cryoshelter e.U.	1
• GIGATRONIK Stuttgart GmbH	1
• KTM Sportmotorcycle AG	1
• MAGNA POWERTRAIN AG & Co KG	2
• MAGNA STEYR Vehicle Engineering AG & Co KG	10
• MAHLE GmbH	1
• Mercedes-Benz Consult Graz GmbH	1
• Mercedes-Benz, Daimler AG	1
• Mercedes-AMG GmbH	2
• Pankl Engine Systems GmbH	1

INSTITUTE OF AVIATION	FREQUENCY
• AIRBUS Operations GmbH	1
• Austro Control GmbH	1
• AVL List GmbH	1
• AXIS Flight Training Systems GmbH	1
• Diamond Maintenance GmbH	1
• DLR German Aerospace Centre e.V.	1
• EADS Astrium N.V.	1
• EUROCOPTER Deutschland GmbH	1
• FACC (Fischer Advanced Composite Components) AG	1

• qpunkt GmbH	1
• Silver Atena Ltd.	1
• Solar Impulse SA	1
• Space Research Institute of the Austrian Academy of Sciences	1
• VIRTUAL VEHICLE Virtual Vehicle Competence Center (ViF)	1

Note. N=46; Automotive Engineering n=32; Aviation n=14

Table 8: Main topic treated in internship

INSTITUTE OF AUTOMOTIVE ENGINEERING^a
• Building a Hydrogen High Pressure Test Bench
• Crankshaft Design
• Development of a High Performance Engine
• Diesel Engine Development
• Dri Con (vehicle automation system)
• Engineering, Writing Technical Information
• FE-Simulation
• Finite Element Simulation with Hyperworks
• FS 133
• Lightweight Vehicle, Roller Bearing Test Rig
• Modular Differential
• Objectification of the Brake Pedal Feel
• Overall Vehicle Testing
• Particle Analysis
• Passenger Safety
• Programming
• Project Management
• Project Management of the Sports Car R8
• Project Planning
• Research Lambda
• Road Load Data Acquisition

- Several Small Topics
- Software Development
- Suspension Development
- Technology Development
- Testing of Runflat Systems
- Transmission Benchmark
- Vehicle Dynamic Simulation
- Vehicle Dynamic Simulation

INSTITUTE OF AVIATION

- Air Conditioning
- Analyse a Planning System for UAVs
- Certification
- Certification and Rulemaking on UAVs
- Conceptual Design and Preliminary Calculations of a Nano-Suspension Experiment to be Performed in the Microgravity Environment on Board the International Space Station
- EGR-Coder Fouling
- Flight Test Programme Tiger-ASGARD
- Project and Programme Management
- Qualification Flight Test
- Quality Assurance in Autoclave Processes
- Re-Design and FE-Analysis of Sensors
- Simulation of Spray Forming and Evaporation Processes
- Stresses and Strains in a Control Surface out of Composite and Metal
- Test Flights, Programming

Note. $N=46$; Automotive Engineering $n=32$; Aviation $n=14$; ^amissing values because of nonresponse $n=3$

Appendix B: Survey sheet

Questionnaire Survey on the English Language Use of Engineering Students in Internships

This survey aims at identifying English language use among Aviation and Automotive Engineering students during their internships. It serves the purpose of further tailoring English courses to industry requirements. The data gathered will be used for research and educational purposes by the authors of this study. All data is confidential and anonymous and participation in the survey is voluntary. Please read the instructions for each item carefully and tick the appropriate box (one box per item only unless otherwise specified) or answer the question in note form where appropriate. **Please provide all answers in English** (offer English names of departments in brackets if the original name was in a different language). After rating Items 12–36, tick the one area for each category that was the most difficult for you in the grey left column.

Personal Data

(1) First language:					
(2) Nationality:					
(3) Age:					
(4) Gender:	<input type="checkbox"/>	male	<input type="checkbox"/>	female	<input type="checkbox"/>

Company Data

(5) Company name:					
(6) Country of company headquarters:					
(7) Country of internship:					
(8) Department where internship took place:					
(9) Main topic treated in internship:					
(10) Working language(s) used	English	German	French	Spanish	Others (specify): _____

(multiple answers possible):						
(11) Native speakers in department (multiple answers possible):	English	German	French	Spanish	Others (specify):	_____

Company-Related English Language Use: Skills Ranking

Tick the one area that was the most difficult for you.	Rating Scale Circle the corresponding frequency of use (0–4).	Not used	Seldom used	Sometimes used	Often used	Very often used
	(12) Writing	0	1	2	3	4
	(13) Reading	0	1	2	3	4
	(14) Spoken interaction	0	1	2	3	4

Please turn page, survey continues.

Company-Related English Language Use: Writing

Tick the one area that was the most difficult for you.	Rating Scale Circle the corresponding frequency of use (0–4).	Not used	Seldom used	Sometimes used	Often used	Very often used
	(15) Emails	0	1	2	3	4
	(16) Presentation slides	0	1	2	3	4
	(17) Technical reports	0	1	2	3	4
	(18) Instruction manuals	0	1	2	3	4
	(19) Letters and faxes	0	1	2	3	4
	(20) Other: _____	0	1	2	3	4

Company-Related English Language Use: Reading

Tick the one area that was the most difficult for you.	Rating Scale Circle the corresponding frequency of use (0–4).	Not used	Seldom used	Some-times used	Often used	Very often used
	(21) Internal company reports and documents	0	1	2	3	4
	(22) Instruction manuals	0	1	2	3	4
	(23) Company policy statements	0	1	2	3	4
	(24) Subject-specific books	0	1	2	3	4
	(25) Industry standards and regulations, for example ISO	0	1	2	3	4
	(26) Emails	0	1	2	3	4
	(27) Web sites	0	1	2	3	4
	(28) Letters and faxes	0	1	2	3	4
	(29) Other: _____	0	1	2	3	4

Company-Related English Language Use: Spoken Interaction

Tick the one area that was the most difficult for you.	Rating Scale Circle the corresponding frequency of use (0–4).	Not used	Seldom used	Some-times used	Often used	Very often used
	(30) Presentations	0	1	2	3	4
	(31) Telephone calls	0	1	2	3	4
	(32) Telephone conferences	0	1	2	3	4
	(33) Video/Skype conferences	0	1	2	3	4
	(34) Formal face-to-face conversations (meetings)	0	1	2	3	4
	(35) Informal face-to-face conversations	0	1	2	3	4
	(36) Other: _____	0	1	2	3	4

Thank you for completing the survey!

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Teaching ESP in higher VET: English for culinary arts and restaurant skills

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Introduction

English is the basis for anyone who wants to succeed in the highly globalised international world of hospitality. To face this challenge, students and teachers need creativity, open-mindedness and a willingness to explore, experiment, and change in this field.

Klessheim School and College of Tourism offer higher Vocational Education and Training (VET) in hospitality management and tourism for the target groups 14 – 19 year-olds and 18+, respectively. To prepare our students to face the challenges of the international world of hospitality, our school development plan contains European and international dimensions, mobility, bilingual teaching, and intercultural exchange as objectives. This particular educational context has a number of pedagogical and methodological implications that influence in particular the choice, design and development of teaching resources in the target language, as well as the ways of recording the acquired knowledge and skills in a workplace setting in the corresponding subject-specific language.

Challenges of teaching knowledge and practical skills in international hospitality

The international and multilingual focus of our school presents our chef, wine, and restaurant skills lecturers, CLIL foreign language teachers and their students with the following challenges:

- How to access subject specific knowledge in the field of culinary arts and restaurant management skills in different languages;
- How to make this subject specific knowledge accessible to students in different languages;
- How to use subject specific language in the teaching of practical skills in culinary arts and restaurant management;
- How to put subject specific knowledge into practice and use foreign languages to communicate in the workplace with colleagues and customers both orally and in writing.

Professionals working internationally in the field of culinary arts, wine and restaurant management need to possess the subject matter knowledge as well as the competence to use the target language as a means of communication in the following areas:

Kitchen:

- Roles and hierarchy in kitchen
- Staff etiquette in the kitchen
- Words and correct pronunciation of equipment names and utensils
- Technical terms and phrases used in catering
- Reading orders out in the kitchen

Front of house:

- Roles and hierarchy in front of house
- Staff etiquette in front of house
- Taking and calling in orders
- Food & wine presentation
- Customer service with international clients
- Sales behaviour and procedure when dealing with international customers

Now it is the role of the students to acquire the necessary knowledge and skills in those areas, and it is the role of the lecturers to provide access to this knowledge and these skills and facilitate the learning process. What makes learning and teaching in international hospitality sometimes demanding and challenging is the fact that international hospitality knowledge and skills are sometimes standardised and cross-cultural; however, they often are specific to particular cultures and language communities.

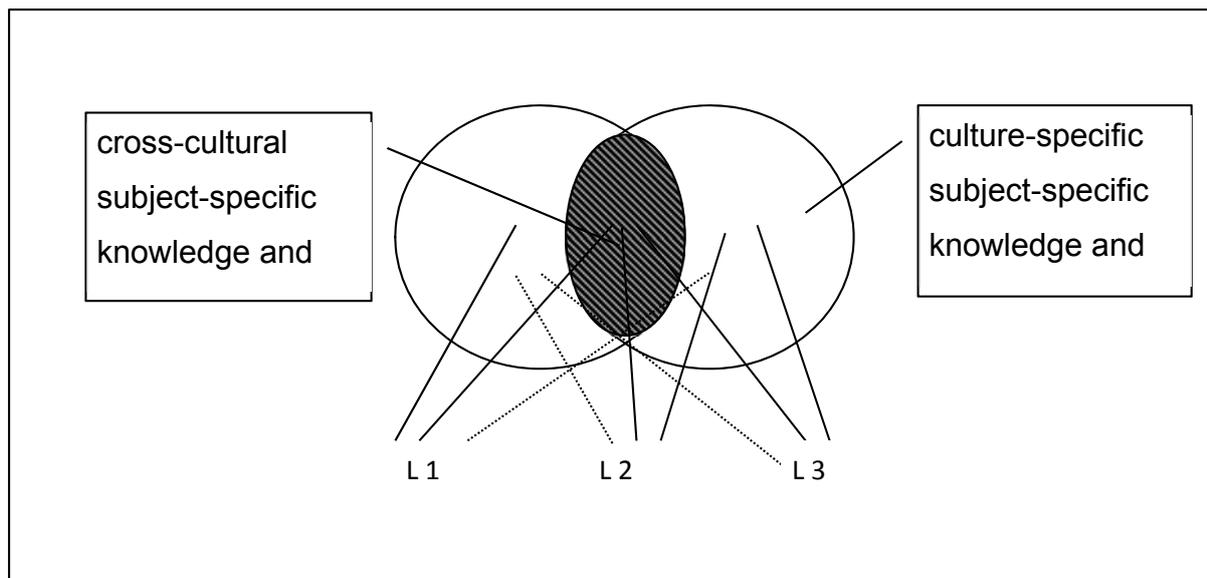


Fig. 1: Schematic representation of possible relations between language and subject-specific knowledge. Learners should be in a position to access subject-specific knowledge and subject-specific skills which are both standardised as well as cross-cultural and culture-specific. (Lutsch, 2010, p. 99)

For teaching international hospitality this means that very often available teaching materials and textbooks in the target language cannot be used directly as they are. Lecturers need to select from different sources or adapt sources to the cultural and educational context of their learners in relation to the culture(s) the target language is spoken in. As selection and adaptation is sometimes not possible or practical, many lecturers have resorted to writing their own teaching resources. In addition, a lot of the learning takes place in a workplace setting. Culinary arts and restaurant skills lecturers often have acquired their knowledge and skills through a long term experience nationally or internationally. In terms of the Bigg's SOLO (Structure of the Observed Learning Outcome) taxonomy, their skills and knowledge is *extended abstract* (Petty, 2009, p. 22) and has often not been consciously documented. A lot of constructivist work place learning occurs in the training process of our students (i.e. practical lessons, work placements throughout the school year and compulsory summer internships). In all these instances, the documentation of the acquired knowledge and skills is a central issue. However, we need to bear in mind that tourism is a tough and fast-paced business, which often leaves little time for documenting learning outcomes.

How lecturers meet these challenges: methods and materials

Due to the lack of readily available teaching materials in the target language that fits their particular school setting and educational context as far as culture and school regulations and other official regulations are concerned, lecturers often need to write their own manuals and booklets. For this, it is essential for chef lecturers and restaurant skills lecturers to have the following competences:

- Occupational competence
- Language competence
- Cultural and intercultural competence
- Methodological competence
- Planning competence
- Evaluative competence
- Personal competence

Occupational competence is an employment prerequisite for any practical skills lecturer. They need to have graduated an apprenticeship, a vocational secondary school or an equivalent qualification and usually possess long-term national and/or international work experience. Both a national career in tourism with international guests and an international career in hospitality go along with the acquisition of subject-specific language competence and (inter)cultural competence. Within the framework of their teacher training bachelor's degree, culinary arts and restaurant skills lecturers complement their subject-specific methodological competence with pedagogics and teaching methodology. Planning competence combines lesson planning with the willingness and the ability to evaluate, develop and use teaching material. Evaluative competence includes the ability to assess students and give constructive feedback. Personal competence is comprised of critical self-reflection and the willingness to include action research, subject-specific research, peer observation and peer reviews into lessons. For a more detailed discussion see Lutsch (2011, pp. 15-16).

In this context, cross-curricular co-operation of chef lecturers, restaurant skills lecturers and language teachers is of utmost importance. With culinary arts and restaurant skills being the main teaching objective and focus, we can identify the four following support processes of multilingual practical skills teaching in relation to subject-specific language education: CLIL (Content and Language Integrated Learning), EMI (English as a Medium of Instruction), materials development in the target language, and international work experience.

CLIL (Content and language integrated learning)

In regular language education classes the school's focus on international hospitality is in line with the national curriculum and has bearing on the choice of textbooks. There is cross-curricular contact and co-operation of the hospitality and English department, in the form of informal meetings, formal project meetings, and peer-observation as well as peer-review of lessons. Language education teachers are offered the possibility to attend language teacher in-service training in English for hospitality. An optional school subject called *English for Hospitality* has also been introduced, and students have the option to take an exam for an external language certificate (*Accueil*) at the end of the two year course.

EMI (English as a medium of instruction)

English is used as a medium of instruction in culinary arts, wine and restaurant skills classes in Klessheim's English speaking college, along with all the other classes of this course. Some of the culinary arts, wine and restaurant skills classes are assisted by the school's English language assistant. They act as guests from another culture in an Austria-based training restaurant, bringing both their language and their culture into class. In review meetings, often in the form of informal meetings, interviews or summaries of lesson content, the focus is placed on language and the corresponding (inter)cultural aspects, such as the different expectations towards hospitality, the language we expect in service, and the relation of Austrian service standards to the expectations of international guests. For the same reasons of language and culture, we occasionally invite external guests from a country where the target language is spoken to dine in restaurant skills classes. The language of instruction is exclusively English at the ITH (Institute of Tourism and Hotel Management), a one-year course designed for international students from all over the world.

Material development in the target language

The school's culinary arts, wine and restaurant skills lecturers have developed extensive teaching material and resources in their subject-specific fields, the titles of which range from *Cooking Compendium*, *Cheese Expert*, *Wine making: Viticulture and Vinification*, to *The First Steps to Become a Sommelier*, to name but a few. To assist them in this process, we have considered and tried a number of options. Language teacher students from Salzburg University took part in culinary arts, wine studies and restaurant skills classes in the context of a pro-seminar and in co-operation with the school's teaching staff with the goal of

developing teaching material and resources. The school's English assistants' involvement in the development of teaching material and resources has also proved to be effective.

International work experience

As part of their education, our students have to complete 32 weeks of compulsory internships in their five years of training at our school of tourism. We assist students in finding and doing international internships. Assisted by an Erasmus+ grant, a great number of students choose to do their internship in an EU country, however there are also a number of students who go further afield, e.g. to the USA, Canada, or Australia. Our school's career centre also offers educational tours to destinations such as Russia, Hong Kong, Singapore, Macao or Vietnam. In addition, our partner tourism school in France and our partner tourism college in Great Britain also support our students in gaining international work experience by way of student exchanges.

Results

Over the course of the last few years, the international and multilingual focus of our school has broadened and intensified the co-operation of culinary arts and restaurant skills lecturers and language educators. We have embarked on a number of projects on multilingual representation and application of subject-specific knowledge and skills varying in scope and size, with German and English being the starting point and French as the language of haute cuisine to follow. Learners being faced with the challenge of multilingual CLIL and EMI have shown increased motivation for their subjects, an increase in their general as well as subject-specific language competence, and their ability to switch between languages. The number of international students at our school and college, especially in the English speaking college, has increased, with students coming from England, Greece, India, Japan, Romania, Russia, and Spain, to name a few. The number of students who decide to do at least one of their compulsory internships abroad has risen. This in turn has increased intercultural exchange and intercultural learning at our school. Our lecturers and educators have clearly shown an increase of their levels of English and a strong desire for more language training, teaching methodology, and possibly external support in the documentation of work place learning.

Conclusions

The measures and projects implemented to operationalise the international and multilingual focus as stated in our school development plan have had an effect on methodology, lesson organisation, and cross-curricular co-operation. This has increased the levels of motivation and language competence among learners, lecturers and language educators. However, it needs to be mentioned that there has also been an increase in the amount of work.

Nevertheless, the authors of this article feel this is outweighed by the benefits of working in a cross-curricular team and in a school with international positioning and standing. We are in favour of school structures facilitating team teaching with chef and restaurant skills lecturers and language educators. An international multilingual focus puts a different perspective on present-day VET and opens up future perspectives in the closer co-operation of VET educators at schools with external professionals and academic experts.

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(Un)willingness of ESP students to speak and whether ESP is an ontological skill

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1 Setting the frame

This paper aims to add to the corpus of research on students' motivation for engaging in speaking activities during classes. This will be done by presenting the specifics of the environment where English for Specific Purposes (ESP) is taught. The intention of this paper is to draw attention to the environment which puts heavy emphasis on professional training, yet in a most passive way for the students, and as to how this reflects and results not only in a language learning setting, but also in the profile of students themselves.

The setting is the Faculty of Electronic Engineering, University of Niš, Serbia. The central question being investigated is – why the students of this faculty are (un)willing to speak in class, what their preferable forms of communication are and why, and how this relates to the overall profile of the types of teaching and learning activities at our faculty. The emphasis of the paper lies on the characteristics of the environment as the prevailing determining formative factors of students' inclination towards being active or not in speaking practice in language classes. By insisting on the relevance of this side over, in this context, the expected issue of situational speaking anxiety (admittedly hugely relevant and present), based on the practice evidence, the author tries to prove that merely 'performative' (Lyotard, 1979) educational environment does not motivate students, future professionals, to express their expertise, let alone their own personalities. The suggestion of the author, based on the actual interaction with students, is that only by going beyond the performative imperative, do students become productive in the speaking practice.

Going beyond the purely performative is a crux of both the teaching process and the main argument of this paper. Namely, performativity as the main requirement of present day education and the institution in question here, in itself fosters only future profession targeted skills. Such an environment therefore, directly and heavily influences the formation of students' worldviews, working habits, personality in general. Language taught for such a professional setting, English for Specific Purposes, is thus a kind of 'reduced language'. Because of this discrepancy between the inherent nature of language as an overarching well of expression, formulation and internalization of experience, and its restricted ESP version that

comes only as a consequence of its determining setting, students feel inhibited to speak. This we consider to be a highly relevant condition that needs much profound attention.

2 (Un)willingness of students to speak in class and their major subjects

The Faculty of Electronic Engineering, University of Niš, Serbia, is a renowned institution, evident in the research and publication results of the teaching staff, and in the fact that the graduated students easily obtain often prestigious jobs worldwide. English language is the only foreign language taught in each year (four of them) of bachelor studies. In years I and II it is primarily General English, whereas in years III and IV only English for Science and Technology along with Academic writing is taught.

There is a noticeable change in the behaviour of students, relating to their (un)willingness to speak in class, as they progress in their studies from freshman year onwards. In year one, they exert much of the behaviour typical for the previous stage of education. This means they are not constrained and hindered in their communication with teachers. At this stage they enjoy being invited to talk about themselves, their needs and expectations from their studies, their background, life style, interests. They freely engage in discussions, exchange of ideas and opinions. The constraint will actually become apparent to them shortly, once they start dealing more seriously with major subjects. Then communication situation drastically changes. When they come to year three, and start dealing with English for Science and Technology, they are very often completely different in their readiness and openness to talk. This major change happens as there is a sharp discrepancy between instruction in their major and instruction in the foreign language. Almost all classes in major subjects are performed in such a way that they are never asked to say anything, literally. They either listen to lectures, passively, take notes and then leave the classroom, or have laboratory practice where again they are just to perform something, not talk about it. This is evident in English language classes to an astounding degree when students suddenly start immediately opening their laptops to take notes, without first listening to the teacher and trying to understand what is being presented to them.

We use Facebook as a platform for posting teaching/learning material and some kinds of assignments. It is students' choice, and is a closed group. There are two types of reactions to it. One group of students find it appropriate for posting all kinds of assignments, including those with the recordings of themselves speaking, and are willing to engage in discussions. They comment that it is useful for them as a preparation before actually engaging in speaking

activities in class, because it lessens the tension. However, there is another group of students who, as they openly admit, out of discomfort of any sort of public speaking, refuse to post anything.

Through the official faculty questionnaires and in informal feedback conversations, the author of this text tries to discuss this issue with students. They identify the cause easily – they are almost never asked to talk in any of other classes. They experience the change in their own behavior unfavorably, but feel it hard to resist. The ultimately disturbing reaction for the language teacher is when students asked to define or explain a concept say they would not know how to do so even in their mother tongue. Students admit having both integrative and instrumental motivation (as defined in the following chapter) to perfect their English, yet feel hindered to activate it.

3 Motivation against/in line with performativity

Development and practice of speaking skills is acknowledged as the most anxiety-provoking element of foreign and second language (FL, L2) education (Marzec-Stawarska, 2015). It is usually caused by fear of disgrace in front of peers whose language skills are better, or in front of a teacher, making the overall result worse than it potentially could be (Peng, 2014; Piechurska-Kuciel, 2011). For these perceived issues that hinder success in Foreign Language speaking skills enhancement, a body of significant research has been conducted, to name just a few examples here - Fariadian, Azizifar, & Gowhary, 2014; Liu, 2009; Mesri, 2012; Tsu-Chia, 2012; Tum & Kunt, 2013. Factors contributing to the speaking anxiety are most often grouped into the following three categories: linguistic (Kojima, 2007; Horwitz, Horwitz, and Cope, 1986), psychological (Kojima, 2007; Gregersen & Horwitz, 2002; Horwitz et al. 1986), and cultural factors (Kojima, 2007; Tanveer, 2007). Admittedly, there are other factors, for example, related to the personality of the teacher who may respond appropriately to the personality of the student (Horwitz, Tallon, & Luo, 2010), (un)successful classroom interaction and engagement (Alrabai, 2014; *Chmelíková, 2015*).

Motivation for learning a foreign language, and therefore for the speaking practice, is defined by students' perception of their goal in the learning process (Crookes and Schmidt, 1991; *Chmelíková, 2015*), and is usually distinguished as either integrative (Falk, 1978), or instrumental (Hudson, 2000). Integrative mainly refers to the desire to become familiar with or even integrate into the society in which the language is used, while instrumental refers to utilitarian purposes, such as obtaining a place at a university, getting a job, participating in

expert research and communication. Students of the named faculty possess motivation of both kinds. They are fully cognizant of their ultimate need for mastering English language. Yet, with some students, this remains only an internal, unrealized awareness due to the overwhelming influence of the academic environment with its emphasis only on achieving professional/academic excellence. This leads to the deterioration of students' willingness and freedom to express themselves. It is ESP is used as a 'reduced' language that further contributes to this situation.

Hereby, the intention is to stress the influence of the environment to the lack of motivation in foreign language learning, particularly regarding speaking practice. In doing so, the environment is perceived as fostering only performativity, the excellence in profession, which is also the primary characteristic and target of English for Specific Purposes, in the view of the author. As a contextualized approach to language teaching, ESP responds to the requirements of a scientific or professional discipline other than linguistics, aiming at total performance, both linguistic and non-linguistic (related to the content other than linguistical). This makes this form of language learning no longer an ontological skill as it presumes that complex cultural, psychological, critical issues as not really present and are excluded from the curriculum.

According to Kumaravadivelu, the teaching of English as a Second or Foreign Language has shifted beyond methods of teaching as so far known, towards what he terms 'postmethod condition' (Kumaravadivelu, 2001). The author of this paper argues this applies to ESP in particular. The move to postmethod, characterized by Content Language Teaching, Critical Literacy and Critical Pedagogy, is by no means to be seen as a solution, but as a revision, a (re)construction of the prevailing ESP educational setting. Quite in line with the essential premise of ESP curriculum design – meeting the needs and idiosyncrasies of actual students, the problematic issues presented here can be addressed not by any prescriptive solution, but by individuals developing their own understanding in their own locally specific context. In the case of the Faculty of Electronic Engineering, University of Niš, Serbia, this is carried out through unobtrusive, slow, careful talks with students, and through relaxing the teaching/learning setting. As a final thought, it is our belief, that ESP can have a significant role in the overall educational setting that by far transcends mere linguistic instruction, in as much as enriching (back) the learning setting to being more than merely performative.

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Conclusions

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These conference proceedings give an insight into the teaching and research interests of a group of ESP practitioners while reflecting the manifold topics, approaches and facets of their work. The complex and demanding nature of being an ESP practitioner is evident, but this, in turn, leads to a wealth of experience and reflections that might help fellow practitioners advance in this field. Some of these reflections were turned into papers encompassing topics such as learner motivation, assessment or the role of vocabulary that form the present volume. These contributions reflect the diversity of students, student cohorts, instructors and institutional contexts while underpinning the idea that it is not possible to reach teaching and learning aims by a prescriptive stance (Mercer, 2013) but rather by many different approaches that allow to transport content by means of the English language.

Apart from the benefits of intercultural collaboration, **Natasha Doshi's** paper has shown that many ESP courses are far from narrow but pursue multiple learning objectives. These include language learning, content learning, workplace skills and social competences alike. Similarly, **Diane Shooman** has shed light on the merits of exploratory practice with content learners whose interests may be geared towards hands-on activities, which points to the fact that ESP courses rest on a range of methodologies.

Hans Platzer and **Désirée Verdonk** have tackled a key question of ESP that many practitioners have asked themselves when preparing materials for their courses, namely that of vocabulary size necessary for text comprehension. Their contribution suggests that general English cannot be separated from professional English for effective use but, quite on the contrary, can forcefully increase domain-specific text comprehension. Their target skill of reading medical science journals appears to be paramount in the large field of health studies.

Birgit Phillips and **Petra Kletzenbauer** have focused on the related role of collocations for improving students' English language proficiency in specialized settings. The practical techniques they describe should prove useful for novice and experienced ESP teachers alike.

Oral proficiency has always been a main goal in any foreign language teaching, and ESP is no exception. Among central aspects related to oral competence is the perception of a foreign accent in non-native speakers. **Karin Richter's** analysis of English-medium instruction by

native speakers has turned to this concern with foreign accent and suggests that even adult learners can measurably improve their pronunciation skills. The effect of pronunciation training on reducing L1 interference and the subsequent effects on students' confidence has further been illustrated by **Najma Janjua**. She indicates that the underlying concept behind a pronunciation guide she has employed with learners whose L1 is Japanese may be applicable to other languages too, providing helpful recommendations as to how it could be developed and implemented.

The importance of assessment and feedback has been emphasized by **Rufat Osmani** concerning creativity in business students' project presentations as well as by **Andrea Kulmhofer, Alia Moser** and **Petra Kletzenbauer** in the context of academic writing. As academic writing is a key skill in higher education and beyond, the authors foreground the concept of writing as a process that requires recurring practice.

Speaking anxiety is an issue faced by many students of ESP. Based on her research, **Slavica Čepon** has pointed towards a variety of underlying causes behind such anxiety in business English learners in a particular context. Learners' preconceived beliefs about learning, insufficient carrier content and the perceived level of teacher support play a clear role. Additional factors such as the unpredictable nature of group speaking tasks, group dynamics as well as inherent sociocultural values further contribute to this complex issue.

The integration of information, communication and technology (ICT) into ESP courses requires specific organizational, administrative, methodological and assessment considerations (see Arnó Macià *et al.*, 2006). **Ulrike Poelzl-Hobusch** and **Eva Goldgruber's** paper has illustrated a blended ESP course on presentation skills that touches on several aspects of e-didactics. Similarly, the potential of online communication for student motivation has been addressed by **Nadežda Stojković**, who provided a second paper on ICT.

A characteristic aspect of universities of applied sciences in Austria is that students need to embark on an obligatory internship during their studies. This work placement became the focus of interest for **Dietmar Tatzl, Simone Sporer-Fellner, Adrian Millward-Sadler** and **Annette Casey** in terms of automotive and aeronautical engineering interns' language skills needed and communicative events encountered. Surprisingly, this educational component has remained rather neglected by researchers so far, and this paper is a small step towards remedying this gap.

As mentioned before, ESP is composed of specialist language teaching for many disciplines and economic sectors. Thus, it has been particularly intriguing to learn more about ESP in culinary arts and restaurant skills represented by **Christian Lutsch, Alexander Stockl** and **Marianne Witzko**.

We hope that these proceedings may provide some ‘food for thought’ for ESP practitioners, and we look forward to further exploring and discussing the issues represented here at UAS Language Instructors’ Conferences in the future. It is encouraging and reassuring to see that ESP has neither lost momentum nor stakeholders since its early days but, quite on the contrary, has proven flexible and adaptive to an ever-changing educational landscape.

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