

Original Research

Languages for specific purposes in medicine and healthcare in times of the Covid-19 pandemic: Reflections on usage-based teaching

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This paper aims to identify the weaknesses of didactic praxis in the field of teaching foreign languages for specific purposes (LSP) and propose more effective approaches that take into consideration both the learner profile and the conditions in which learners acquire a language as a tool in their job, training or education. Based on the example of the teaching of German for medical purposes in the target country to highly qualified healthcare staff that have immigrated for professional reasons, we recapitulate the didactic/methodological principles of the Berlin Didactics, draw upon a critique of the CEFR and, on this basis, we theoretically demonstrate specific implementation strategies for a usage-based model of the teaching of languages for specific purposes that can realistically be incorporated in the curricula of LSP courses, independent of the target language. The first strategy concerns a data-driven approach to the teaching of languages for specific purposes by making use of (parallel) language corpora in the classroom. The second is the design of a dual teaching model, based on Vygotsky's Zone of Proximal Development and promotes peer learning, while combining traditional LSP lessons and practical technical language training. The third proposed strategy concerns the role of mediation in the teaching of LSP. The paper concludes with a discussion of the benefits and limitations of the three didactic strategies that serves as a starting point for the design of relevant LSP policies, curricula and resources.

KEYWORDS: languages for specific purposes, German for medical purposes, usage-based approaches, corpus, peer learning, mediation, Covid-19



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1. INTRODUCTION

Germany reports a blatant shortage of qualified specialists in many areas, such as industry, business, administration, and specifically in the field of medicine and nursing. The Federal Ministry of

Health is therefore recruiting healthcare staff from e.g. Bosnia and Kosovo and from the growing flows of refugees and immigrants that include numerous qualified doctors and nursing staff. In this context, the migratory flows of health workers

from Greece are particularly impressive. According to the German Medical Association, the number of Greek doctors working in Germany increased by 232.27% in the years between 1999 and 2017 (Katsaounis, 2021, p. 242). This fact alone is significant enough to draw the conclusion that the teaching of languages for specific purposes, as part of general foreign language teaching, is experiencing a new upswing.

In addition to the professional qualifications of migrating healthcare staff, they all have in common that they have to acquire the German language at the level that is required in order for them to put their professional qualifications in good use. To meet this need, numerous language courses are offered that by a very large majority aim at integration into German society. However, traditional language courses often seem unsuitable for achieving the objectives of imparting vocational and subject-specific language skills with the existing thematic, didactic and lesson planning conditions in the long term.

For example, a language-systematic or a grammar-based approach have proven to be not suitable for the target groups addressed here. However, grammatical understanding and knowledge of linguistic formalities still very often form the basis of language courses and teaching materials, so that there is often a gap between the courses offered and the needs, expectations and requirements of migrant highly qualified workers. For their primary goal is not to acquire the German language, but to acquire those language competences (sociolinguistic, conversational, etc.) that will equip them with the skills to apply their qualifications and their knowledge in their professional lives. The views and assessment of migrant qualified workers towards traditional language courses are shaped accordingly (Steinmüller, 2018). The results of a quantitative study, that was carried out in 2016 with the participation of 200 Syrian migrants in language schools, adult education centres, institutes, associations and refugee homes in five major German cities, have shown that the motivation to learn the language was extremely high (Amer, 2016, p. 42). Approximately 40% of the

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participants stated that their goal was to acquire German language skills for work reasons, while 18% wanted to do so for educational reasons (Amer, 2016).

However, for almost half of those questioned, the re-adaptation to the student role after many years of absence from the learning process and their engagement with professional activities posed major challenges. The designing of lessons with the help of modern media and alternative social forms in the classroom, such as language learning games, were also met with reservations by almost half of those surveyed, while the use of traditional textbooks was rated positively by just as many (Amer, 2016, p. 50). At the same time, they repeatedly criticised the fact that they did not learn to speak German, but rather grammar, counting rhymes and poems, as the study by Amer (2016) showed.

2. DIDACTIC REALITIES

2.1. Didactics of technical languages

The above aspects must be considered when planning and implementing language courses for specific purposes. Hence, such courses place high demands on the didactic-methodological qualifications of foreign language teachers (Mackay & Palmer, 1981; Gollin-Kies et al., 2015).

For a target group-appropriate design of language courses of German for specific purposes another aspect comes into play, namely the question of the variants of the specific language (Lippert,

1978; Ylönen, 2010). In order to answer this, differentiated analyses of the language needs are required, which are based on the respective communicative situations and purposes for which German language skills are required. In the medical field, these are primarily conversations between doctors, between doctors and patients and their relatives, between doctors and nurses, between nurses and patients. In addition to these verbal communicative situations, there are a number of written language requirements such as the medical history report, the medical record, the so-called 'doctor's letter', i.e. written case documentation from the hospital or clinic to the family doctor, etc. For the nursing staff in the outpatients area, the written communicative requirements are nursing reports and handover protocols, to name just two. These examples show that a simple orientation of foreign language lessons towards the technical language of medicine and nursing cannot do justice to the requirements of the complex and diverse situations in which the language is truly used. The linguistics of technical languages, and in particular, the model by Hoffmann (1976), can provide decision-making aids for target-group-specific teaching.

Hoffmann (1976) distinguishes five levels of technical languages, which differ depending on their degree of technical abstraction, their theoretical-scientific foundation, their use of specific signs and symbols and their context of use. At the upper end of this hierarchy is linguistic usage, as it is defined in the scientific discourse in specialist publications on medicine or in the discourse between practising physicians. Via various intermediate levels with decreasing abstraction, decreasing subject specificity and increasing use of general language resources, the scholar arrives at a level of specialist language use that is characterised by a rather low level of abstraction. At this level, the technical reference is located at a generally understandable, rather popular scientific level, where the use of language is characterised by technical terminology and some syntactical peculiarities on an otherwise general language basis. An example here may be the conversation in a doctor's waiting room, where

the patients waiting chat about their ailments and therapies. The public as well as the private discourse in the times of the Covid-19 pandemic show once again how the boundaries between medical specialist foreign language and everyday language can be blurred due to the urgency of the conversations taking place and the affective factors that play a role in the negotiation of meaning (Tulchinskii, 2020).

Becoming aware of this differentiated view makes it more effective – both as a foreign language teacher and as a language policy maker – to deal with and convey technical and professional languages, including in the field of German as a foreign language for specific purposes. This makes the orientation towards the respective target group of learners, the objective of the language level to be achieved and thus the task of the lesson much clearer than with the very general reference to the development of a technical language competence, which, in its indeterminacy, arouses unattainable expectations rather than serving specific learning objectives.

Successful teaching, and this also applies to the teaching of German as a foreign language in the medical and nursing fields, is a structured and organised process, which results in the transfer of competencies and the achievement of learning goals. Lessons following modern psychological approaches to learning are based on constructivist, non-instructionist learning theories. Lessons understood in this way are both a social and communicative process at the same time that is jointly designed by the people involved. This means that the learners are actively involved in the planning, design and implementation of the lessons. This has consequences for both learners and teachers. The learners are no longer just recipients of the learning material conveyed by the teacher through instruction (instructionist), but are actively involved in the presentation, preparation and development of the learning material and the achievement of the learning objectives. They co-construct the lesson, its goals and results (constructivist). The constructivist view is taken into consideration also in our concrete didactic proposals.

2.2. The Berlin Didactics as a basis for further development of teaching methods

The following considerations are based on the *Berlin Didactics* (Heimann et al., 1965). It offers a model for describing the planning and design of lessons with the inclusion of various factors affecting it, their mutual dependencies and influences. This model was developed in the 1970s at the University of Education in Berlin and has since been adapted for teaching German as a foreign language in numerous publications and projects. The *Berlin Didactics* is not education-oriented but learning goal-oriented. The focus is on the student, the student as an individual who should achieve certain learning goals and develop certain skills.

Every lesson is a designed and structured process that is influenced and shaped by various influencing factors and that takes place within the framework of institutions. As a result, it is subject to certain requirements, purposes and restrictions. This also applies in particular to foreign language teaching in the medical and nursing fields under pandemic conditions. These factors include the conditions of the teaching situation (geographical, temporal, spatial; institutional location and specifications; size and composition of the learning group), while other sources of influence are e.g. the individual learner profile, the teaching material and teaching resources available, the learning methods and strategies applied, etc. These factors are to be considered by teachers of language for specific purposes when designing and implementing their lesson plans. In times of the Covid-19 pandemic the aforementioned factors become not only more urgent, but there are specific changes – regarding changes in the lesson format, thematic content and conversational style – that have an effect on the teaching of medical language and terminology during, and probably after, the pandemic. Firstly, educational formats have changed dramatically because of the pandemic. Lessons take place either online or in the form of blended-learning, which have influenced all levels of education, including the adult education and foreign language teaching that concern us in this paper. The abrupt transition to those teaching formats has

fundamentally influenced the way teachers approach education, which includes their considerations regarding the thematic and communicative content. Especially in the teaching of medical language, the content now includes not only newly introduced jargon but also new situational conversation topics. As far as the conversational style is concerned, it has changed for all healthcare staff during the pandemic, since the factors influencing conversation now include urgency, hospital overload, meeting relatives' information demands via a phone, showing more empathy in patient consultations, etc. By incorporating a usage-based approach to the teaching of foreign languages for medical purposes, teachers and policy makers can incorporate such dynamic factors, treat language as ever-changing and focus on interactional properties and social usage events.

Not all of the above factors can be influenced by those involved in the lesson, although they can have a lasting effect on teaching practice. The *Berlin Didactics* therefore divides these factors into two categories: (1) *Field of Conditions*, i.e. the areas that are given as framework conditions and prerequisites for teaching and must therefore be considered, even if they are beyond the influence of teachers and learners, and (2) *Field of Decisions*, i.e. the areas in which decisions have to be made considering the factors of the condition fields.

The fields of conditions, that are to be considered as influencing factors in lesson planning, include socio-cultural factors such as legal and ordinance requirements, e.g. school/institutional laws, curricula, working time and health requirements, requirements of the school/institutional authority, etc.; geographical and spatial conditions, e.g. the language school/institute is situated in city or in rural areas, classrooms and their equipment, time and space organisation of the lessons – it is, for example, not indifferent whether the classroom is bright and friendly, organised also by the learners, whether the lessons are around 8 a.m. or 2 p.m., before the start of work or in the evening after a working day, etc. On the personal level, for both teachers and learners, there are very different cultural and psycho-social factors (in the terminology

of Berlin didactics anthropogenic factors) to be taken into account. On the part of the learner, this includes e.g. social status and structure of the family, age and gender, position in the sibling line or marital status, religious, cultural and political influences, and also migration and/or refugee experiences, previous school experience, possible work experience, preferences and hobbies, etc. (Mukhortov & Strelets, 2021). Regarding the teachers, similar preconditions must be taken into consideration.

2.3. Lesson planning for LSP teaching

For foreign language teaching, these sociocultural and psycho-social factors represent a challenge when planning, designing and carrying out language lessons, also considering possible migration and refugee experiences, the situation in the country of origin and the situation of the learner in the host country, which could be the case in the group that we are concerned with. The described pre- and framework conditions are included in the process of lesson planning, for which all relevant decisions in accordance with the constructivist approach have to be made, with the involvement of learners and with regard to the lesson goals and content as well as the media and methods to be integrated. It is these factors in the decision-making field that are open to the influence of teachers, their creativity and didactic and methodical skills. Decisions in each of these decision-making fields

influence subsequent decisions, so that a structure of mutual dependencies arises. If, for example, a certain learning goal is to be achieved, the question must be clarified with which content this can be achieved, which media are suitable for conveying this content and which methods can be used for this. If instead a certain content is to be the focus, the question arises which goals can be achieved through it, which media and methods are suitable, etc. A certain teaching goal can be achieved better with certain content than with others, and the decision to use a particular medium results in the decision to use certain methods.

The necessary planning phases are: factual analysis, didactic analysis and methodical implementation that includes decisions regarding media implementation. Factual analysis is used by the teacher to closely examine subject-relative questions, like what the content is, how is it to be classified, e.g. historically, culturally, socially, aesthetically, theoretically, etc. Didactic analysis asks which of the findings and results obtained in the factual analysis are suitable as a learning objective for our learning group and which competencies can be achieved. The results of the field of conditions analysis must then also be taken into account here. On the third level of analysis, questions revolve around suitable methods and media. In doing so, mutual dependencies and influences, as shown in the didactic square, must be considered (Figure 1).

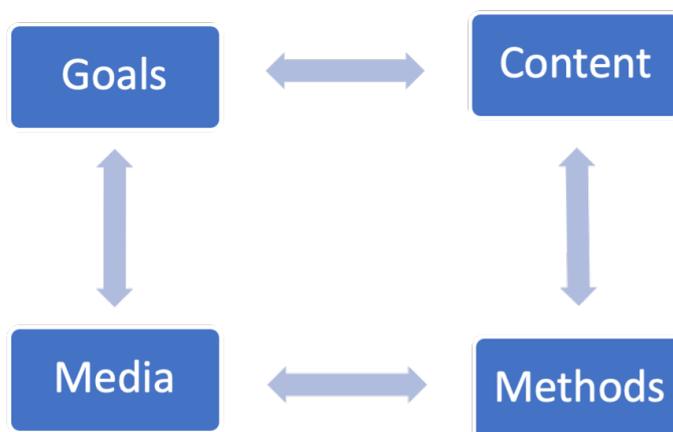


Figure 1. The didactic square

3. IN NEED OF A TECHNICAL LANGUAGE COMPETENCE?

These considerations and levels of analysis provide an adequate basis for the teaching of German for specific purposes in the medical and nursing sectors, because they enable target-group-specific communicative situational teaching, especially when factoring in the specialist language differentiation according to Hoffmann (1976). However, these lessons cannot be limited to imparting and acquiring language skills. In the professional field of activity of doctors and nurses that we are looking at here, additional skills are required.

With regard to the above, Yu (2004) developed an inclusive hierarchy of competencies, i.e. a hierarchy in which each subsequent level includes all preceding levels as a genuine component. At the base of this hierarchy lies foreign language competence as the highly advanced form of command of the target language. At a next, higher level lies communicative competence. At this level the scholar places the application of linguistic competence in communicative situations, where linguistic competence is expanded by all the strategies and norms that shape communicative processes. Finally, on the level of intercultural competence, which inevitably builds on the two previous com-

petence levels, this linguistic-communicative competence is realised in specific communicative situations, in which – in our case – doctors, nursing staff and patients of very different cultures meet and communicate with one another.

A controversial question often discussed in the field of language and linguistics for specific purposes is when and at what level of language proficiency the teaching of technical and professional language can or should sensibly begin. It is often found that the teaching and learning of languages for specific purposes can only be meaningful, when carried out at an advanced level, perhaps even only at C1 level (CEFR). In this paper, we maintain the position that for the specific group of learners discussed here, who usually are professionally experienced adults, who – also according to the results of Amer's (2016) surveys – have problems with the renewed assumption of the student role and who are interested mostly in short-term and intensive language lessons as a preparation for starting a career in Germany, foreign language lessons should also be possible at lower levels. The Common European Framework of Reference for Languages (CEFR) provides information on this at various levels of competence (Europarat, 2001) (Table 1).

Table 1

Common Reference Levels: Global scale

LEVEL	CAN-DO STATEMENT
A2	Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.
B1	Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc.
B2	Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation.
C1	Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes.

‘From a didactic point of view, the orientation towards these can-do descriptions of the CEFR opens up a broad field of possible approaches for the teaching of specialist and professional languages, in which the course design as well as the learning objectives can be based on the learning prerequisites and the interests and needs of the learner’

Technical and professional languages can therefore be thematised and conveyed at various levels of language proficiency, adapted to the existing knowledge and the desired learning objectives and competencies, which are mentioned in the can-do descriptions. From a didactic point of view, the orientation towards these can-do descriptions of the CEFR opens up a broad field of possible approaches for the teaching of specialist and professional languages, in which the course design as well as the learning objectives can be based on the learning prerequisites and the interests and needs of the learner.

Below we propose specific methodological techniques that fall under the scope of a usage-based approach to the teaching of foreign languages for specific purposes and can be implemented in language teaching lessons, either with only small or with considerable modifications.

4. A SUSTAINABLE DIDACTIC APPROACH

4.1. Working with corpora and parallel corpora in LSP teaching

The massive spread of information technologies has, among other things, enabled the creation of large electronic language corpora that can be used in empirical research in many areas of linguistics. By implementing a *Data-Driven Learning* (DDL) approach to foreign language learning, language corpora can also be incorporated into the teaching of foreign languages for specific purposes. This means, that foreign language lessons as well as technical language lessons are faced with new

challenges. There are specific didactic aspects that need to be discussed, such as: (1) for what didactic and methodological purposes could/should corpora be used in the teaching of languages for specific purposes?; (2) which psychological aspects have to be taken into account when teaching/learning a technical language with corpora?; (3) does the DDL approach have any consequences regarding the role of teachers/learners in the teaching of languages for specific purposes and, if so, how are these to be assessed?

First of all, it should be considered to what extent the knowledge gained through the work with corpus data in the classroom can be transferred to the sociolinguistic domain that the corpus represents. In quantitative corpus-based research the following applies: the larger, more representative and balanced a corpus, the more reliable the results that can be expected. In language teaching, Corpora can be used in two versions (Gabrielatos, 2005; Leech, 1997): the soft version, where the teacher has access to the corpus and the relevant concordance software and learners work with examples from the corpus that the teacher has constructed into activity tasks, and the hard version, where learners have direct access to the corpus. Both versions have their limitations. If, for example, a linguistic phenomenon is documented in a corpus of oral language, then it also exists. But if this phenomenon cannot be morpho-syntactically proven, no statement can be made, especially if the teacher is not familiar with the use of corpora. One more problem that could arise is if the acceptability of a ‘word combination’ that is not documented in the corpus is to be assessed by the learners, the contribution or questioning of native speakers might be needed, and that is not always possible, because teachers are not always native speakers. Lastly, Perkuhn and Belica (2006) comment on the following problem with corpus work in the classroom: *‘Assuming a technically flawless and authentic illustration, corpora only contain facts about language usage. They reflect grammatically correct and incorrect handling of the language, as practiced by the language community depicted. In addition, the creative use of language*

that is often reflected in (oral) corpora, cannot be anticipated by grammar authors (teachers, textbook writers, etc.)' (Perkuhn & Belica, 2006, p. 5).

In McEnery and Wilson (1997) the role of corpora in language teaching can be summarised as follows: *'The corpus encourages the student to act as the producer of research, rather than its passive receptible. [...] In being presented with corpus materials, students learn by a confrontation with data. [...] a student is immediately forced into active participation in the process of learning. [...] The teacher still has a place in the corpus-based classroom, but the shift of emphasis away from the didactic pedagogue towards the fellow researcher [...] is emphasised by inclusion of the corpus in the teaching equation'* (McEnery & Wilson, 1997, p. 6). Other perspectives to the DDL approach regard the learner less as a researcher and more as a traveller on a voyage of discovery and emphasise the importance of learning through discovery. Bernardini (2002) writes that *'learners browse corpora much in the same way as they would explore an unknown land. The teacher accompanies them as a guide, not telling them what to do but advising them on how to pursue their own interests, suggesting alternative ways to proceed, other interpretation of the data or possible ways forward. Interestingly, the role of instructor or oracle does not shift from teacher to corpus: the corpus is not expected to provide the right answers, and often does not, but constantly presents new challenges and stimulates new questions, renewing the user's curiosity and offering ample opportunity for researching aspects of language and culture, which may easily become a subject of research projects, reports and discussion'* (Bernardini, 2002, p. 166).

The use of parallel corpora in the teaching of foreign languages and foreign languages for specific purposes can be beneficial. *'A bilingual corpus [...] provides real world contrastive evidence of how utterances or samples of text in one language can be rendered in another, according to a given context, and of how words are used appropriately in combination'* (Peters et al., 2000, p. 74), with which the parallel corpora remedy one of the weaknesses from which traditional translation dic-

tionaries suffer. While older methodological practices of foreign language teaching (mainly direct method, audiolingual and audiovisual methods) have banned translation as a method from foreign language teaching, translation is now a part of the framework, is very widely used in the teaching of terminology in technical language teaching, and hence deserves a place in foreign technical language teaching today.

There is one more point in working with corpora for the teaching of languages for specific purposes that has to do with the German language for medical purposes. Steinmüller (1991) lists sixteen linguistic features of German for specific purposes that concern morphology (e.g. substantiated infinitives, adjectives ending with *-bar*, *-los*, *-rich*, *-arm*, *-free*, *-fest*, multi-word complexes, etc.) and also syntax (e.g. functional verb structures, ellipses with infinitive, etc.). Such language features can effectively be practised with the help of written or oral corpora for the German language.

4.2. Peer learning as an essential part of technical language teaching

As discussed above, the construct of technical language competence is in most respects explained by the general linguistic competences, as described in the CEFR. At this point, we argue that describing specific can-do statements for technical language competence – especially for the lower levels of linguistic competence – would be extremely useful, for language teachers, curriculum designers and assessment experts alike. However, to define technical language competence separated from other linguistic competencies would be less effective. The next useful step would be to propose a more fruitful didactic stance that differs from the often unsuccessful didactic/methodological approach implemented so far (see Introduction). The usage-based didactic approach argued for in our paper is rooted in Vygotsky's (1978) *Zone of Proximal Development*. Although the notion was introduced by Vygotsky with reference to child education, its sociocultural basis serves the purposes of this paper. The scholar defines the notion of proximal development as *'the distance be-*

tween the actual development level as determined through independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers' (Vygotsky, 1978, p. 86). Adult learners of languages for specific purposes, that are in the process of acquiring a language for professional reasons in the target land, can be considered as novice learners that can perform neither the needed linguistic competencies nor their already acquired professional competencies at their full capacity, since their successful implementation depends on their language skills. In this sense, they have to cover the distance between their actual and potential language-dependent professional expertise. They can perform their professional competencies unaided, but need guidance when tackling technical language-related tasks and situations. In our case of novice adult learners (migrant healthcare staff), the more knowledgeable other who aids them in acquiring the related technical language, is the foreign language teacher, who in turn cannot play the role of the knowledgeable other regarding the norms, jargon, etc. of the specific domain of language use.

According to our adaptation of the *Zone of Proximal Development*, a more sustainable usage-based didactic approach would be for novice adult learners to acquire technical language through the interaction with healthcare professionals in the target land, native and/or non-native speakers, who have reached a functional level of technical linguistic competence and already work in the field. The main reasons to propose this approach are: (1) regarding the teaching of technical and, in this case, medical language the foreign language classroom becomes a locus of simulation, since the situations in which linguistic content has to be taught go beyond the scope of sociolinguistic experience of the average language teacher; (2) drawing on Hall (2004), foreign language learning can be viewed as an interactional achievement. Especially with respect to the conversational competence of adult novice language learners in the healthcare profession that need to linguistically, socially and technically adapt to the communication style of

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different social actors (doctors to doctors, doctors to nurses, doctors to patients, nurses to patient, doctors to relatives, etc.), to incorporate the dynamic interplay of different interactional procedures to the teaching practice is vital. This goal can be reached by adopting a didactic approach based on the *Zone of Proximal Development*. Such an approach could be achieved by a dual teaching model. Practical technical language training should be a big part of traditional language for specific purposes lessons. Especially in healthcare professions, where practical training is a crucial part of subject curricula, practical technical language training could be easily integrated. In this way, the type of learners that concerns us in this paper will acquire the needed language skills while interacting in the target language with the other social actors in the field (professionals, patients, etc.), who in turn perform the role of the knowledgeable other. Technical language learning will then be embedded in sociocultural reality and target the simultaneous development of both technical and general language skills, of situated sociocultural experiences by the learners, of problem-solving language-dependent competence and of peer learning as a competences integration strategy. The question that arises next is whether peers can only assist in technical language learning through interacting with novices and exemplifying technical language in situ or whether they also serve a more communicative purpose.

4.3. The role of mediation in LSP teaching

Drawing upon the CEFR 2020 Companion volume (North & Piccardo, 2020), either native or non-native peers with a sufficient language level

can act both as social, cultural and cross-linguistic mediators. In the dual teaching model proposed here, peers that have the same L1 with doctors and nurses that migrate to Germany could act as cross-linguistic mediators during practical technical language training. This means that language learners will practise interactive, oral mediation in the specific situational context, for which they are preparing and in which they are generally interested. Mediation activities could then be designed for implementation both in and outside of the classroom. In this way, authenticity of mediation activities will be ensured.

In the context of practical technical language training, not only peers with the same L1 can act as mediators. Peers that are native speakers can assume the role of the social and cultural mediator. Mediation also involves mediating concepts and peer native speakers can *'facilitate access to knowledge and concepts for others, particularly if they may be unable to access this directly on their own'* (North & Piccardo, 2020, p. 91), thus assuming the role of the knowledgeable other that mediates this socially and culturally shaped knowledge to the novice (Schwartz, 2020).

Especially in higher language levels (B1-C2), where the language learner has acquired a working knowledge of the general language and builds on technical jargon, the contribution of native peers as social and cultural mediators is essential, since the learner will develop a more in-depth understanding and awareness of concepts (Hu, 2019). In turn, peers with the same L1 may prove more effective as cross-linguistic mediators for learners at lower competence levels (A1, A2), basically because at those levels they can aim at strengthening the learner's repertoire, acting as intermediaries between learners and native peers and spurring learner reflection.

5. CONCLUSION

In conclusion, the teaching of languages for specific purposes is as relevant as ever, especially since the post-2010 period where the brain drain peaked in countries stricken by the economic crisis (Greece, Spain, Italy, etc.). In our paper the fo-

cus of interest lies on didactic interventions which are regarded as necessary, since feedback from adult learners regarding traditional technical language courses has not been positive.

The first recommendation for further educational/didactic research and implementation concerns the proposed dual model of teaching languages for specific purposes. We see the need for a holistic framework that combines traditional technical language teaching practices and practical technical language training. The framework, which is under preparation, uses German as a language for medical purposes as an example, approaches the definition of technical language competence in connection with the described competences in the CEFR, proposes concrete level descriptors and illustrates specific didactic interventions based on the propositions made in this paper.

As far as mediation is concerned, it should be an important part of the teaching of languages for specific purposes. Few researchers have looked at mediation – due to its complex nature – in the teaching of technical languages (see Chovancová, 2016; 2018), so a number of parameters still remain to be addressed. Learners should engage in mediation activities, especially regarding oral mediation (Dendrinos, 2016), because the communicative skill of mediating information influences the discourse between doctor/nurse and patient/relative. The CEFR 2020 Companion provides mediation descriptors for levels A1 to C2, which can also be implemented in the dual teaching model proposed here, with modifications regarding the design of mediation activities for technical language lessons and practical technical language training respectively.

In linguistics in general as well as in technical foreign language teaching, it is currently primarily electronic corpora that open up new perspectives. Although it is evident that corpus work is applicable to foreign and technical language teaching, the idea does not seem to have established itself yet. More research dedicated to technical language teaching, and especially the corpus-driven teaching of jargon (Lippert, 1999; Beyer & Schulz, 2020), is needed.

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