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Multilingualism and Languages in Education

Guest editors
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Editorial

Language in times of mobility and globalisation has been inspiring research from different disciplines and in different thematic fields for recent years. The objective is to better understand the particular mechanisms that language is involved in, to possibly open new ways of thinking or sometimes to suggest research-based solutions to a particular challenge. This kind of research has a pronounced societal dimension and so has the present Special Issue. The thematic field under investigation is language in education and all contributions focus upon institutionalised forms of education. The overall objective is to contribute to bridge the gap between a rather monolingual mindset of the institutions and the multilingualism of individual language users. Three thematic lines are pursued: a) subject teaching (Vetter & Durmus, Müller & Scheuch, Imamović-Topčić & Weger), b) foreign language instruction (Göbel & Vieluf, Janík) and c) pre-service teacher education (Niesen). The disciplines involved refer to educational linguistics, language pedagogy, subject didactics and teacher education and they are reflected in the particular theoretical and methodological approaches of the single contributions. All texts represent a European perspective, as the empirical data stem from Austria (Vetter & Durmus, Müller & Scheuch, Imamović-Topčić & Weger), Germany (Niesen, Göbel & Vieluf) and the Czech Republic (Janík). A critical and applied perspective is adopted by all authors: They identify a problem of societal relevance and share the conviction that their research contributes to a better understanding of the discrepancy between the multilingual world and the monolingual institutional norms in education. Some articulate the hope that their research may result in better practice.

The present focus is relatively new to the Central European context. We hope that this Special Issue can be inspiring and beneficial for pre- and in-service teachers as well as researchers from different traditions and not only within multilingualism research.

The issue opens with a theoretical paper by Eva Vetter and Duygu Durmus that positions language/s in education in a Human Rights perspective. The authors conceptualise teaching and learning in institutions as a continuum between the learners'

6 already existing proficiencies and the institutional requirements. They critically discuss the two extreme points in terms of everyday practice and academic language and position scaffolding and translanguaging on the continuum. Scaffolding is criticised for remaining a monolingual approach, translanguaging for losing sight of the particular capital associated with academic language. The authors illustrate these risks with extracts from a sequence of biology lessons studied in an action research project. The authors conclude that translanguaging and scaffolding should be understood as complementary approaches.

A thematic bridging of theory to practice of language scaffolding is represented by the first empirical study of the Special Issue written by Bernhard Müllner and Martin Scheuch. It illustrates a case of a learning environment in school from the perspective of its supportive language learning elements. The authors investigate avoidance strategies in the context of linguistic overload in biology class in an Austrian school. In their case study, we can understand reasons for the avoidance behaviour of a pupil in real biology class situations in relation to teaching materials used in that class. Results reveal that the avoidance strategies can be explained by linguistic complexity in schoolbook texts and missing linguistic scaffolding of the language of schooling.

In the second empirical study employing another usage-centred perspective, Edna Imamović-Topčić and Denis Weger try to explain the linguistic practices and the role of colloquial and academic language interaction in a collaborative environment of history class in an Austrian school. Based on their results that reveal various strategies for dealing with difficult historical input, the authors call for a greater recognition of the role of colloquial language in the acquisition of academic language and the understanding of topic specific context.

In the third empirical study, Heike Niesen deals with another perspective of multilingual learning – the perspective of pre-service teachers. The author deals with the question about how language (learning) biographies can have an impact on the development of teachers' Professional Vision and practical teaching capabilities in video-based surroundings. The results of the study conducted in Germany imply that pre-service teachers' video reflection and their multilingual sensitivity (empathy) with pupils may serve as indicators of Professional Vision. Their former language learning experience enables them to understand pupils' learning difficulties.

The next study by Miroslav Janík brings an insight into students' use of English in German as a second foreign language lessons in Czech schools. In this study, languages as such are approached as a linguistic repertoire. The author looks at how students (and teachers) in Czech schools deal with English use within German lessons. The study shows inconsistency in teacher responses to multilingualism. Thus, a clearer consideration as to if languages are taught as discreet entities or if more flexible linguistic mechanisms may be adopted to facilitate learning is needed.

The last study regarding foreign language instruction context is written by Kerstin Göbel and Svenja Vieluf. It emphasises the importance of language transfer promoting teaching in English as a foreign language instruction. Based on the results of

this study conducted in secondary schools in Germany, we can see implications of positive correlation of language transfer promoting teaching with listening comprehension. However, the study reveals deficiencies in the teachers' language transfer promoting teaching as well. Language transfer promotion is implemented in a rather implicit way that only refers to the German language. The authors call for further development of elaborated strategies for implementation of language transfer promoting teaching.

All studies aim at better educational practice, although in respect to different disciplinary and thematic views. They call for further empirical investigation into classroom practice and teacher education and highlight the role of interdisciplinary research. The Special Issue closes with a report by Alice Brychová from the conference *Multilingualism as a Chance* in Kassel, Germany, which draws similar conclusions calling for the development of multilingualism, but from a more practical and didactical perspective.

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"Es waren die Stengel urr aufgewachsen." Language/s in Education – Going Back and Moving Forward

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Abstract: The present contribution positions language/s in education in a Human Rights perspective. It is argued that language is an influential factor in achieving educational equity. Educational equity is linked to the pedagogical principle that all teaching shall start with the learners' capacities. In super-diverse classrooms the linguistic capacities may vary significantly, whereas the competencies to be reached remain equal for all. In the background of Human Rights this calls for a strictly learner-centred approach that oscillates between what learners already know and the institution's requirements. What this means for language/s in and for education is discussed in the light of scaffolding and translanguaging. Both approaches were developed specifically for institutional learning in the context of super-diversity. It is argued that they both only partially meet the challenge and may complement each other. This is illustrated with examples from action research in a sequence of biology lessons in a Viennese middle school.

Keywords: academic language, scaffolding, translanguaging, (in)equity in education, biology lesson

A staggering 40% of the global population does not have access to education in a language they speak or understand (UNESCO, 2016). The UNESCO's Policy Paper 24 refers to this result from Walter and Benson (2012) and calls for close attention to language rights in the context of a new global education agenda (UNESCO, 2016). The key message of this Policy Paper is that children should be taught in a language they understand. The present contribution will, in a first step, show that Human Rights are an adequate frame for discussing language(s) in/for education. This argument is grounded in relevant documents pertaining to educational policy as well as in empirical research that strongly supports the relevance of language for education.

In a second step, the pedagogical implications are investigated. It will be shown that the Human Rights frame naturally matches the pedagogical principle of starting from the learners' capacities. It is, however, less evident what this can mean for language in super-diverse classrooms. In the following, the ultimate linguistic aim of teaching towards the institutional requirements will be critically investigated in light of concepts such as "Bildungssprache" and academic language.

The challenge of moving from what learners already know to what they are expected to know has been addressed by language pedagogy in varying ways. Scaffolding and translanguaging are two approaches that specifically support the

10 language development of multilingual learners. This paper asks in how far these approaches respond to the particular case of super-diverse classrooms within a Human Rights frame. Strengths and weaknesses are identified and allow a more complete understanding of teaching as a continuous move between already existing capacities of pupils and institutional requirements.

The last section exemplifies some central statements made about language/s in/for education on the basis of data from empirical research at school. The data collected during an action research project carried out by the second author of this contribution, Duygu Durmus (2016), allow for insights into the linguistic aspects of learning. They may support the argument that oscillating between what is already known and the objective of teaching is a rewarding enterprise that needs continuous and professional support.

1 A Human Rights frame for the language debate

1.1 Policy documents in focus

The *Universal Declaration of Human Rights* (1948, Article 26.2) assigns two basic functions to education: First, education "shall be directed to the full development of human personality and to the strengthening of respect for human rights and fundamental freedoms"; second, it "shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace". In addition to the prohibition of discrimination on the basis of language in Article 2 of the *Universal Declaration of Human Rights* (1948), there is also a language component in Article 26 on education: Clearly, language is not only relevant to the access to education, it also relates to the idea of education itself as articulated in the *Universal Declaration of Human Rights*. This significant point has been more or less explicitly taken up by influential texts on education policy (for an overview, see UNESCO, 2006).

In general, the language issue often refers to the challenge of educational equity. Intercultural education may serve as an example for this link: Conceptualised by the UNESCO, a major player in the field of education policy, the Guidelines for Intercultural Education consider equity in public and social life the key to the governability of pluralistic, democratic societies (UNESCO, 2006, p. 8). Three principles of intercultural education are mentioned in the Guidelines: 1. culturally appropriate and responsive quality education for all, 2. cultural knowledge, attitudes and skills necessary for active participation in society, and 3. knowledge, attitudes and skills that enable learners to contribute to respect, understanding and solidarity. A closer look at the strategies through which the principles can be achieved clearly indicates the language component: Principle 1 shall be achieved through "the choice of a language of instruction which includes, where possible, the mother tongue of the learners" (UNESCO, 2006, p. 33). This aspect continues a policy that was made even

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more explicit three years earlier in the Position Paper "Education in a Multilingual World" (UNESCO, 2003): Here, the UNESCO strongly supports mother tongue instruction (Principle I), bi- and multilingual education (Principle II) as well as language as an essential component of intercultural education (Principle III).

Another cornerstone for education policy was the Sustainable Development Goal 4 (SDG 4) on quality education. The global Sustainable Development Goals were agreed upon in 2015 in New York (UN, 2015) and are regularly monitored by the UNESCO. SDG 4 reaffirms commitment to inclusive, equitable quality education and lifelong learning opportunities for all. The importance of language becomes evident in the UNESCO's monitoring reports, particularly in the Global Education Monitoring Report Policy Paper 24 (UNESCO, 2016): "If you don't understand, how can you learn?" The rhetorical question in the report's title explicates the underlying assumption: The language of instruction can hold back a child's learning. This Policy Paper reiterates the call for mother tongue education and highlights the risks of poverty for education: The imposition of one language often represents a source of grievance linked to wider issues of social and cultural inequity. It is therefore not surprising that the use of the pupils' home or first languages in primary education has become an indicator for the implementation of SDG 4 (UNESCO, 2015, p. 78). The most recent Global Education Monitoring Report 2017/18 (UNESCO, 2018, p. 41) reaffirms the importance of language for educational equity.

To summarise, policy documents in the domain of Human Rights and Education Policy acknowledge the importance of language. The UN views education as a Human Right. The "full development of human personality", one of the basic functions of education, can be achieved only when the influence of language is acknowledged. This is the main message of education policy documents in this respect. More precisely, language is considered one of many influential factors in achieving educational equity. Here, the policy documents focus on access to education through language and strongly support mother-tongue education. In contrast, the role of education for participation in an inclusive, pluralistic and democratic society is less foregrounded in the Human Rights discourse.

1.2 Empirical research

There is abundant research on language and education. Although this work is informed by different theoretical and methodological traditions, it generally confirms that language is – together with socio-economic background – one of the features that are consistently linked to the educational success of pupils at school. Decades of research have given detailed insights into the multiple functions of language for the different dimensions of access to education and learning at school. Based on concepts with the aim to better understand the mechanisms of language at different levels, pedagogical approaches emerged in order to support pupils in this particular domain.

In the 1960s, Bernstein's conceptualisation of "elaborated" and "restricted code" (Bernstein, 1964, 1977) resulted in a growing interest in language barriers for chil-

12　dren from the lower working-class. Going beyond monolingual scenarios, Cummins introduced the distinction between BICS (Basic Interpersonal Communicative Skills) and CALP (Cognitive Academic Language Proficiency) (Cummins, 1979, 1981, 2008). These concepts and Cummins' Interdependence Hypothesis have sparked a large body of critique over the last decades. Nevertheless, abundant empirical data widely confirmed the main assumptions of this approach. Thus, Cummins convincingly concludes that "the distinction between social and academic language is almost universally acknowledged by researchers, educators, and policy makers" and that hundreds of studies carried out over the past 35 years have proved "moderate but consistent relationships between L1 and L2 literacy related competencies" (Cummins, 2016, p. 941).

Research results are informative with respect to multilingual pupils: L1 maintenance proves beneficial to their educational success along with the study of the target language (August & Shanahan, 2006; Genesee et al., 2006). Time emerges as an important factor: Whereas interpersonal proficiency in a new language can be attained within two to four years, academic language takes five to seven (Thomas & Collier, 2002) and sometimes up to eleven years to develop (Levin & Shohamy, 2008). Research into achievement gaps between immigrants and their native-born peers reveals the complex interaction of factors relevant for the development of academic proficiency. These factors are demographic features such as ethnic background, socioeconomic status (SES), gender and arrival age as well as linguistic factors (e.g. exposure, language use) and social-psychological factors (e.g. attitudes, motivation, identity) (Haim, 2014). More recently, Orly Haim has extended the reach of academic proficiency in the context of trilingualism in concluding that dimensions of academic proficiency "can apparently be transferred not only from L1 or L2 to L3, but also in the reverse direction" (Haim, 2018).

Apart from quantitative studies, there is a growing body of ethnographic research using predominantly qualitative data from school contexts. These contributions converge in discussing the divide between the still monolingual mindset of educational institutions such as schools on the one hand and "diversified" (or super-diverse) learners on the other. With respect to language, this quite commonly leads scholars to reach for concepts that are better suited to super-diverse contexts as opposed to languages as discrete and bounded entities. Hence, ethnographic research tends to focus on linguistic practice in terms of code-mixing, translanguaging, code-meshing etc. Ethnographic research finally provides fine-grained and differentiated insights into specific aspects of the mechanisms of language in education. Taking newcomers to the French education system as an example, Pickel and Hélot (2014) explain how the absolute priority given to competence in the national language French silences the students' plurilingual competence and disempowers them on their way to further education. Martín Rojo's study on a similar group of learners (Martín Rojo, 2013) in a secondary school in Madrid includes a controversy about "respect": The imposition of Spanish is required by the teacher in terms of respect. A student resists this rule and calls for the inclusion of other languages in terms of respect. In both studies, the monolingual mindset of the institution is strongly questioned by multi-

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lingual learners who strive for access to education. The institutional ideal of a single language is also questioned in the observation study carried out by Mick (2011) in Luxembourgish primary schools. Her work shows how the legitimisation of different voices in the learning process enables pupils to biographically contextualise their own learning and construct knowledge. Another example of such ethnographic work is Norton's detailed analysis of literacy practices and their interrelationship with the learners' identities (Norton, 2014). It suggests that meaning making is encouraged when learners are in a position of power and when their learner identities remain connected to their lifeworld. Plurality as key to participation at school is also stressed by Cummins et al. (2015): In their investigation into the subjects of literature and art, Cummins, Hu, Markus, and Montero (2015) impressively demonstrate the extent to which pupils benefit from using their multilingual and/or multimodal skills as cognitive tools in various domains. As a final example, Vetter (2018) indicates individual resistance to monolingual institutional norms: Looking to future possibilities and interactions, pupils adopt creative strategies in order to further develop those features of their multilingual repertoire that are not part of the institution's monolingual mindset.

Quantitative and qualitative research into these complex issues is complementary. Although many questions necessarily remain open, research today can show that and – partially – how language is closely intertwined with other factors relevant to educational success. One general conclusion could be that the functions of language can only be understood if its complex interaction with other factors is taken into consideration. Another central conclusion indicates the influential role of school systems: Whereas in inclusive systems such as in South Tyrol or Canada the family background has no effect, Austria's highly selective educational system can be characterised by achievement gaps related to pupils' background, including the language used outside school (Herzog-Punzenberger, 2017, p. 14). Pupils with German as their L1 clearly outperform their colleagues with another L1 after eight school years; even accounting for the socio-economic background, a significant difference remains (BIST, 2017, p. 54). Research allows for a more nuanced understanding of access to education and reveals the interacting factors that need to be taken into account if particular goals such as equity in education are to be achieved. Research furthermore complements the challenge identified in policy documents: Inasmuch as it is crucial for access to and participation in education, language has been shown to be decisive for educational (in)equity.

2 Teaching and learning as a continuum

2.1 From what pupils already know…

An oft-cited pedagogic principle is to take the learners' proficiency as the starting point for teaching and learning. It relates to a socio-constructivist understanding of

14 learning and can be theoretically grounded in Vygotskij's socio-cultural theory. Quite often, this principle is articulated in a paradigmatic way. The interesting questions here are, for one, in how far starting from what learners already know can inform a linguistic approach to teaching and learning, and, for another, what such an approach can achieve.

These are not new questions. Subject didactics and education have long been considering language when they seek to help learners understand. Science education, for example, looks back on decades of work on language. Today, this line of research culminates in extensive and interdisciplinary studies that allow for differentiated and detailed insights. Interdisciplinary teams have developed, combining linguists, educationalists and experts in the field. As a consequence, insights into which kind of language proficiency fits best with which kind of teaching approach have been gained. To give an example, Schüler-Meyer et al. (2017) have shown that bilingual German/Turkish teaching does not distract from learning mathematics and that proficiency in academic Turkish is not necessary but helpful for concept understanding. It seems that recent research has brought numerous, diversified results that require contextualisation. They all share, however, the conviction to start from what learners already know. In science education, this common denominator is often rooted in Wagenschein's pedagogical approach: Wagenschein defines "genetic learning" as based on and always connected with the original reality, the original thinking and speaking (Wagenschein, n.d.). The language dimension is most evident in Rule 7 of the genetic approach:

> "Rule 7 (for all teaching subjects):
> First the mother tongue, then expert language (but also back to the mother tongue again and again)
> Therefore: to see the mother tongue not as something to be replaced or even to be eradicated, but as something to be wholly exhausted and yet to remain, besides and below expert language. The mother tongue is the language of understanding, expert language seals the result in a final step."
> „7. Regel (für alle Fächer; …):
> Erst die Muttersprache, dann die Fachsprache (und immer wieder auch zurück zur Muttersprache)
> Nicht also: die Muttersprache als ein zu Ersetzendes, oder gar Auszumerzendes ansehen, sondern als ein ganz Auszuschöpfendes und doch Bleibendes, neben und
> unter der Fachsprache. Die Muttersprache ist die Sprache des Verstehens,
> die Fachsprache besiegelt das Ergebnis in einem letzten Arbeitsgang."
> (Wagenschein, 1970, Bd. I p. 487 ff.; 1970 Bd. II 99 ff., 158 ff., 1971, p. 209 ff)

When describing the mother tongue as the language of understanding that should not be replaced by the language of the discipline, Wagenschein does not mean L1 or native language, concepts that are increasingly questioned in times of globalisation. Indeed, Wagenschein opposes the mother tongue to the expert language of a particular discipline such as the symbolic language used in mathematics. A viable option is to understand "mother tongue" in Wagenschein's sense in terms of everyday language practice, i.e. language used for direct world experience. It is interesting that

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Wagenschein warns against moving away too early or not coming back to everyday language. In fact, he conceptualises learning as a continuous process of moving forward and coming back. Learning can therefore break down if it only moves forward without getting back. Hence, Wagenschein supports anthropomorphic wording that is radically criticised by scientists. During the process of understanding, language should be free. He himself uses a metaphor to illustrate this continuous movement between everyday language and expert language: On their way to expert language, teachers and pupils should not "burn the ships" that allow them to go back again (Wagenschein, n.d.).

Not only should everyday language be taken as starting point, learners should also regularly get back to it and use it for understanding. From a linguistic perspective, this principle begs the question what everyday language, i.e. "mother tongue" in Wagenschein's wording, means today. In the context of super-diversity, we can safely assume that the question is not about fixing one language as "mother tongue" but rather about investigating everyday language practice in more detail.

This shift of perspective is in line with a theoretical shift characteristic of looking at language in post-modern, mobile times. Numerous terms have emerged that share a particular perspective on language as mobile resource and practice: translingualism (Canagarajah, 2013), flexible multilingualism (Creese & Blackledge, 2010), polylingualism (Jørgensen et al., 2011), metrolingualism (Otsuji & Pennycook, 2011) or heteroglossia (Bailey, 2012). In the words of Canagarajah (2017, p. 3), this perspective seeks "to index the more intense forms of contact that transcend labelled, territorialized, and separated languages, and the synergy of new meanings and grammars being generated through this mobility of codes". Blackledge and Creese confirm that "meaning making is not confined to the use of languages as discrete, enumerable, bounded sets of linguistic resources" (Blackledge & Creese, 2017). Canagarajah argues that such a practice-based perspective on language has always been there in the history of human communication, although for a long time it remained hidden due to monolingual ideologies, particularly in Western nation states (Canagarajah, 2013).

For the identification of learners' capacities, such a focus on practice appears to be a promising endeavour. There is no longer a need to reduce the learners' language proficiency to L1, family language or mother tongue, concepts that are increasingly questioned in times of globalisation. Focusing on everyday practice as an approach to where learning starts from may also include features from different languages. It may thus also be a more adequate concept for research on super-diverse learners.

2.2 … to institutionally required language

What is the destination of the approach that starts from everyday practice? What should be the linguistic goal of the learning process? There is no doubt that institutionally required language is crucial for educational success and that it represents an instrument of power. It is, however, still not clear what "institutionally required

16 language" means and how it can be described linguistically. Five decades of linguistic research have not brought about a clear definition but suggest three preliminary remarks: First, decontextualisation, preciseness and explicitness are characteristic features of institutionally required language. Second, everyday practice and institutionally required language should be considered the extreme points of a continuum rather than clearly distinguishable, binary categories. Third, proficiency in the institutionally required language is not equally distributed among learners.

In Bernstein's early conceptualisation, the 'elaborated code' (in contrast to 'restricted code') is characterised by explicitness, decontextualisation and preciseness (Bernstein, 1964, 1977), and is attributed to children from middle-class families. Similarly, Cummins' distinction between BICS (Basic Interpersonal Communicative Skills) and CALP (Cognitive Academic Language Proficiency) (Cummins, 1979, 1981) relates to context-embedded vs. context-reduced language proficiency and is, moreover, based on differences in acquisition and developmental patterns between BICS and CALP. Another influential conceptualisation referring to institutionally required language is "Bildungssprache" (academic language, translation used in this contribution): Gogolin draws upon Habermas (1977) and defines "Bildungssprache"/academic language as the linguistic register in which education is transmitted in institutions and "with whose help one can use the means of school education to obtain orientational knowledge" (Gogolin, 2010, p. 29; Gogolin & Lange, 2011, p. 108). Gogolin also refers to Cummins and highlights the crucial function of academic language for cognitively demanding tasks. She concludes that academic language is particularly relevant for educational success, since it represents the register in which knowledge is transmitted, acquired and certified (Gogolin, 2010, p. 29).

A functional description of academic language is also one of the main results of Morek and Heller's (2012) overview of predominantly germanophone research. The authors conclude that academic language has three functions, i.e. communicative, epistemic and social: The communicative dimension focuses on the functionality of academic language for the respective social activity, e.g. linguistic decontextualisation serves the transmission of complex information. The epistemic function indicates that language also functions as a tool for reasoning and learning, and relates to acquiring new knowledge and skills. The social function refers to the hierarchical order of language in terms of cultural capital. Similarly to earlier studies, this recent and mostly germanophone body of research predominantly investigates the gate-keeping and selective function of academic language in the context of educational success.

What is difficult about academic language is not only its linguistic description, but also the relative isolation and fragmentation of research. Influential concepts such as CALP or the German "Bildungssprache" are rarely explicitly linked to each other, despite their conceptual similarities. Moreover, translation still appears to be challenging: Even if the present investigation limits itself to German and English – which is an ultimate untenable reduction of the conceptual reality since it ignores, e.g., the discussion about "langues de l'éducation" and others – there remains

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considerable risk for confusion. Morek and Heller (2012), e.g., opt for "academic language" and "academic discourse" to translate "Bildungssprache". Schüler-Meyer et al. (2017) create different boundaries and distinguish three registers, i.e. everyday register, academic school register and the technical register of specific subjects (e.g. mathematics). Each of these registers is considered in the language of instruction and in the home language. Although the concepts vary significantly, there seems to be an agreement that there is a kind of language or register that is institutionally more valued than others. There is, however, no common understanding of what this institutional requirement means in linguistic terms.

Moreover, there is fundamental disagreement over the epistemic function of academic language. Genetic learning, as developed by Wagenschein, highlights the epistemic function of everyday practice. A distinction is drawn between the language of understanding and the language of the understood. The perspective linked to the notion of genetic learning indicates the need to draw on everyday practice for understanding. This aspect is ignored by research on academic language that focusses on the epistemic function of academic language alone. The present contribution cannot solve this discrepancy and adopts a critical position: Despite the remaining conceptual difficulties, the institutionally required kind of language will be named "academic language" here. It is defined as the formal register of the one or more language/s of instruction and as different from everyday practice. Academic language is close to but still distinguishable from expert language. It is assumed that academic language has a communicative, epistemic and social function and that these functions require specific linguistic features. As to the epistemic function, it is assumed that this is not necessarily exclusive to academic language.

3 Between everyday and academic: translanguaging and scaffolding

Translanguaging and scaffolding are two pedagogical approaches that developed quite independently. They are commonly albeit not exclusively linked to different research traditions. Whereas translanguaging is quite often associated with the North American tradition following the work of García and others, scaffolding established itself in the germanophone tradition of subject didactics and German as a Second Language. Both approaches aim at empowering learners and explore the continuum between the learner's proficiency, here everyday practice, and the institutionally required language, here academic language, although with a substantially different focus.

Translanguaging is informed by cognitive and psycholinguistic models of bi- and multilingualism and Cummins' work on the interdependence of languages. Rooted in a practice-based understanding of language, translanguaging pedagogy is "centered not on languages, but on the observable communicative practices" of multilinguals (García & Flores, 2014, p. 155). Multilinguals flexibly draw on their linguistic resourc-

18   es when making sense of their complex worlds. The main principle of translanguaging pedagogy is that both teaching and learning start with the full linguistic and semiotic repertoire of the learners.

Translanguaging questions numerous assumptions and models on which education is traditionally based. One such assumption is the idea of school language regimes rooted in one (or more) single linguistic norm/s or convention/s. From a translanguaging perspective, these regimes disconnect language from interaction, experiences and knowledge building, and function in terms of "narrow linguistic passageways that schools construct" (García 2017, p. 257). Instead of shaping everyone's experience and knowledge, language in schools only serves those whose language practices can easily pass through. Those who do not pass through are denied access to knowledge and to many of the ways of understanding the world. Translanguaging pedagogy also goes beyond additive models of bilingualism since languages are not separated: It emphasises the fluid and dynamic use of linguistic resources pertaining to differently labelled languages for teaching content and for literacy (García & Menken, 2015). Finally, translanguaging impacts our understanding of learners' identities: Instead of looking at bi- and multilinguals in terms of two or more cultures and histories, translanguaging encourages the affirmation of bi- and multilingual identities that differ from identities based on the unity of language, territory and ethnicity.

The term translanguaging goes back to Cen Williams' unpublished dissertation on teaching and learning methodologies in bilingual secondary education (Williams, 1994, cited from García & Flores, 2014, p. 166). The Welsh term originally used by Williams was translated as "translanguaging" into English and refers to the practice of asking students to alternate languages for receptive or productive use, i.e. to read in English and write in Welsh or vice versa (García & Flores, 2014, p. 155). Since then, the scope of translanguaging has widened and empirical research has yielded in numerous insights: García and Menken, for example, analysed 23 city schools in New York City that had adopted translanguaging pedagogy. Their research clearly demonstrates the benefits of the active preservation of students' L1 (García & Menken, 2015). Others report on positive results for translanguaging in terms of moving between formal and informal language (Prediger et al., 2016). There is also a certain conceptual proximity to other concepts for multilingual contexts, such as multilingual communication (House & Rehbein, 2004), that has not been fully explored yet.

Translanguaging pedagogy has not produced a strict set of rules, but develops flexibly alongside the learners' needs. Indeed, plurality is an important feature of translanguaging, and García frequently uses the plural noun, i.e. translanguaging pedagogies. She identifies five purposes of translanguaging: 1. motivation for learning, deepening of meaning, understanding and knowledge; 2. metalinguistic awareness and (critical) sociolinguistic consciousness, 3. affirmation of bilingual identities, 4. social interaction and communication (e.g. home-school cooperation), 5. empowerment. However, translanguaging is not conceived of as a strategy for all language-related issues in education. It is part of a well-planned instructional design, within which it has to be used "strategically" (García, 2017, p. 261).

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Similarly to translanguaging, scaffolding developed as an array of strategies. Its purpose, however, is to foster the learners' academic language, its focus is on teaching. Although specific scaffolding strategies may occasionally include other languages and language practice as well, e.g. when working with multilingual word lists, scaffolding still represents a monolingual approach towards learning.

Following Gibbons (2009, p. 15), scaffolding is a socio-cultural approach to teaching that represents situated support for closing the gap between what learners can do unaided and what they are able to accomplish with the help of a more knowledgeable person. Scaffolding is particularly intended for pupils whose L1 differs from the language of instruction. Its purpose is to promote the learning of new content, concepts and skills (Kniffka, 2010, p. 1). Some authors stress that scaffolding should not be mistaken for any kind of pedagogic support for Second Language Learners (Quehl & Trapp, 2015, p. 27).

The search for conceptual conciseness is particularly pronounced for scaffolding in germanophone pedagogy and subject didactics (Quehl & Trapp, 2015, p. 26). Following Hammond and Gibbons (2005), scaffolding is closely connected to socio-cultural theory (Vygotskij, 2002) and Systemic Functional Linguistics (Halliday, 1978). Although Vygotskij did not explicitly introduce the concept of scaffolding, Hammond and Gibbons consider it as constitutive of Vygotskij's Zone of Proximal Development (ZPD). The most effective learning occurs when learners need task-specific support, i.e. when they act within their ZPD, the educational basis for a child's development. This is seen as enabling learners to independently complete the same or similar tasks in new contexts (Hammond & Gibbons, 2005, p. 8). In line with Systemic Functional Grammar, scaffolding considers the social function of language: Using language is a purposive activity of the speaker or writer in a particular event with a particular type of role interaction and relating to a particular register (Halliday & Hasan, 1994, p. 22).

The conceptualisation of scaffolding in germanophone research is systematically presented first by Quehl and Trapp (2015, p. 26). Following Hammond and Gibbons (2005, p. 12ff.) a macro- and micro-level are identified. The notion of 'designed-in macro-scaffolding' indicates the common agreement that all teachers are language teachers and that linguistic proficiency should be explicitly promoted during subject teaching. Hence, scaffolding at the macro-level refers to knowledge about the language proficiency that learners bring with them. Moreover, it includes the systematic planning of subject teaching with regard to the linguistic means needed for achieving the subject-learning goals, and it considers the relationship between academic language and the other registers available to the learners. In contrast, scaffolding at the micro-level, i.e. 'interactional contingent micro-scaffolding', means the concrete interaction with learners during the lesson.

It must be noted that there is an impressive amount of work that adapts the scaffolding approach for subject didactics. One of its key outcomes has been the precise description of lesson plans (see, e.g., Tajmel & Hägi-Mead, 2017). Moreover, it should be noted that in countries such as Austria scaffolding has been integrated

20 into vocational training for in-service teachers (Vetter, 2014). This relative success of the approach is probably also due to the fact that it serves the overall political aim at present, namely to foster the language of instruction, here: German.

In practice, scaffolding has remained a monolingual approach at heart, since it does not systematically draw on the pupils' full repertoire (OESZ, 2012). One of the many scaffolding strategies available is to use a glossary in several languages known to the learners. This kind of strategy is rare and does not take into consideration the multi-facetedness of the learners' repertoires, i.e. that the learners might not be able to write the language(s) they use in everyday interaction.

From a comparative perspective, translanguaging and scaffolding have complementary features. Nevertheless, the fundamental theoretical differences must not be overlooked. Whereas translanguaging pedagogy adopts a practice-based understanding of language and questions languages as bounded entities, scaffolding works towards the institutionally required register of a clearly identifiable language. The pedagogical perspectives are different as well. Although learning and teaching are always interrelated, the focus of translanguaging pedagogy is on learning and understanding, whereas scaffolding is about teaching and developing lesson plans. Despite these differences, both can be positioned on the continuum between what learners already know and what they are institutionally required to know with respect to language. The two approaches' complementarity stems from this position: Translanguaging is particularly active in going back and activating the full range of the learners' linguistic resources. Scaffolding pursues a clear focus on academic register and is creative in devising strategies to provide learners with adequate linguistic means. Translanguaging might run the risk of losing sight of the power hierarchy responsible for the particular capital associated with one particular register. Scaffolding, however, risks to "burn the ships" and to not sufficiently conceptualise the way back towards lifeworld practice. In the following, both risks will be illustrated with extracts from a sequence of biology lessons studied in an action research project (Durmus, 2016).

4 Examples from an action research project

In a study on scaffolding in biology lessons, the second author of this paper (Durmus, 2016) adopted all steps of the scaffolding approach. The aim of her sequence of biology lessons was twofold: Learners should be able to evaluate the conditions (water, light etc.) for plant growth and describe its developmental phases. Of course, learners should have acquired the necessary linguistic means to reach these aims. The study was realised as an action research project with the researcher also acting as the teacher.

The project was located in an urban secondary school (Neue Mittelschule – NMS) in Vienna with a high proportion of pupils from migrant families from Turkey. All but one pupil of the project class were proficient in Turkish (to varying, unspecified

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degrees). According to the pupils' statements in informal conversations, they use Turkish (alongside German) at home. The dominance of Turkish is representative of the chosen school, but it is not representative of linguistic diversity in Viennese schools of this type (NMS). Although Turkish (alongside Bosnian/Croatian/Serbian) is one of the most widely spoken and wide-spread languages among pupils in Vienna and Austria, such an overwhelming dominance of one particular language is extremely rare. Moreover, we can safely assume on the basis of statistical data summarised in Herzog-Punzenberger (2017) that the observed classroom is most probably part of the only 9% of Austrian classrooms of this school type (NMS) in which more than three thirds of the pupils use a language other than German (but together with German) at home (Herzog-Punzenberger, 2017, p. 8).

As to methodology, the pupils' linguistic proficiency in German was analysed via qualitative observation of classroom interaction (Bortz & Döring, 2016, p. 332). The evaluation of the pupils' proficiency represents the basis for lesson planning which integrates the subject goals (conditions for and developmental phases of plant growth) and the linguistic means associated with them. Lesson planning was supported by a biologist. The researcher carried out the sequence of lessons and took notes in a diary after each lesson. In each lesson two to four university students were present for observation. These student observers were future teachers of different subjects and at the time participated in a university course on multilingualism in education. Their notes complemented those of the researcher. Beyond the notes from observation and the researcher's diary, various other data were collected: Pupils documented the research process and their observation on plant growth in diaries and completed a qualitative questionnaire. Moreover, informal contact with the school's headmaster and teachers was maintained over the entire project period.

In the following, three critical incidents from observation and one extract from the pupils' diaries are discussed. The incidents are chosen to illustrate the process of understanding during task-fulfilment. The written diary entry represents a rather final state of the learning process and communicates what was understood. They are written individually at the end of each biology lesson. They summarise the task, the observation and the discussion of the results. The examples illustrate possible moments on the continuum between everyday practice and academic language and demonstrate how pupils go back and forward when striving for understanding.

The first example is documented in the notes taken during participant observation. It is situated during a phase of task fulfilment. The task is equal for all pupils: They are to formulate hypotheses on the conditions for plant development. One girl asks the teacher if she is allowed to ask a question during this phase. The teacher agrees and then asks a fellow pupil in Turkish what "tohum" means in German. A third pupil intervenes and suggests the German word for beans ("Bohne"). In this moment the teacher seems to feel that they won't solve their problem alone. She translates "tohum" into German "Samen" / "seeds". Having received this help, the girl continues working on her task in German. This is a rather classical example of going back and forward. It happens between languages like in the present case, but

22   also between different registers. The girl cannot achieve understanding through the language of instruction alone. She successfully moves back to a familiar name for the phenomenon under investigation. What is interesting here is that the linguistic rule of the project school would not have allowed this process. German is strongly recommended for all kinds of interactions at school and particularly during the lessons. During the project this rule was changed. Having internalised the German only rule, the girl possibly wanted to be sure of the teacher's permission, because her question related to Turkish. The example also proves that prohibiting this short translanguaging process would have held back learning in this particular case.

The second example also relates to notes from participant observation. It is about preciseness, which is commonly considered a key feature of academic language. Although precise language relates to all categories of words, our data seems to indicate that new nouns are taken up more easily than verbs. To give an example, the precise definition for the object in which the pupils place the seed, i.e. "Samenschälchen", was less problematic than the various linguistic realisations for meaning "to add" (German: "geben", "dazugeben"). When pupils are asked to orally describe the experiments, these processes within the ZPD become visible. It seems that the differentiation between "streuen" / "to scatter" ("Samen auf das Papier streuen" / "Scatter the seeds on the paper") and "sprühen" / "to spray" ("Wasser auf die Samen sprühen" / "Spray water on the seed") is not yet part of the pupils' everyday practice and particularly difficult to apply. The correct use of these verbs can be interpreted as an extension of what they already know. This extension is not systematically successful, of course. In searching for the new verb, pupils may ultimately rely on what they already know: "Wir müssen jetzt jeden Tag Wasser s... eh... geben" / "We now have to ... give water every day". This is neither academic nor correct German, although the example shows that the learner has understood how the process works, i.e. that water has to be added in order to let plants grow. The use of the hyperonym "geben" / "to give" here points to a discrepancy between the language of understanding and the language needed to communicate the understood. The hesitation in this example possibly indicates learning on the way to fulfilling the communicative function of academic language.

The third example relates to formal correctness and incorrect use: "Wir haben dann drauf Wasser gestreut" / "We then scattered water on it". Here, the learner has used the correct form of a new verb, but has used it inadequately. It is possible that this learner has simply confused "streuen" / "scatter" and "besprühen" / "spray" in trying to use the new verbs, and that the use of these verbs indicates a step from everyday to academic language. These three examples from spoken interaction illustrate different cases. They all have in common that the linguistic means to communicate the understood are not available to the learners. In the first case, going back to a feature pertaining to another language is successful, whereas in the second and third example the move is situated within the language of instruction. They all illustrate in how far linguistic features from everyday practice are activated for and helpful during the process of understanding.

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The last example, taken from the diaries, illustrates translanguaging between different registers of a single language. It is not surprising that the written texts in the pupils' learning diaries articulate less linguistic evidence of translanguaging. Most of the written texts are more "academic" than their spoken interactions, although some pupils draw upon other registers as well. However, the other language, Turkish, is not overtly present in these texts. "Wir haben am Anfang Erde rein gegeben und die Samen gestreut." / "At the beginning we put earth in and scattered the seeds." It is remarkable that in this text "streuen" is used correctly, while "rein" is part of a colloquial register. A few lines later in the same text, another feature associated with colloquial language is used: "Es waren die Stengel urr aufgewachsen." / "The stems had grown up awesome." It must be noted that the intensifier "urr" is strongly associated with youth language and conceptual orality. Although it cannot be denied that these extracts do not correctly communicate the experiment, they represent a moment of understanding. The growth of the plants, for example, is linguistically marked as surprising and impressive. Although the written text is positioned at the end of understanding, it still includes traces of the linguistic move between everyday practice and the institutionally required register.

The four examples given above can be interpreted as evidence of processes that are difficult to access. Understanding and communicating the understood are crucial for learning. Both processes are often associated with academic language. The examples, however, reveal that everyday practice is also an important resource for both. This supports the assumption that the activation of everyday practice is highly beneficial to understanding and that the continuous move between everyday practice and academic register cannot be handled efficiently without integrating both ends of the continuum. Hence, the examples call for not "burning the ships" in the sense of Wagenschein. At the same time, they point to a discrepancy between epistemic and communicative aims and the failure of everyday language practice to communicate the understood. This underlines that the communication of the understood requires particular support in order to be successful.

5 Concluding remarks

The present field of research is characterised by diverse and not always compatible theoretical and methodological approaches. If we start out from the most general description possible and agree that it is all about language/s in education, Human Rights and social equity represent an adequate frame for the discussion. Policy documents clearly recognise equity in education as influential for societal well-being, and language is acknowledged as highly relevant for access to education. Research shows that the language component is also pertinent to participation in institutional education. In the context of super-diversity (within still existing nation-states) the policy that pupils should be taught in a language they understand needs further investigation. We have limited our contribution to the process of learning in terms

of a move between the learners' already existing proficiencies and the institutional requirements. Focusing on language and despite unresolved conceptual questions, we found that this move is best described in terms of everyday practice and academic language. Everyday language is open to the full set of resources that learners bring with them and hence most appropriate also in the context of Human Rights. So is academic language, the most powerful register in institutional education, since it allows for participation in education and society.

There are many reasons to question the concept of academic language. Beyond the vague linguistic description, one could ask in how far societal change should inform institutional norms. In the present case, this rightly points to the growing discrepancy between multilingual societies and the still monolingual mindset of educational institutions. The focus of the present contribution is, however, to look closer at the linguistic component of the learners' participation in the educational enterprise. We did so through the lens of two influential pedagogic approaches that developed in the context of multilingualism, translanguaging and scaffolding. The examples from our empirical study on a sequence of biology lessons support both approaches. Translanguaging means the regular move back to everyday practice, which promotes and sometimes even enables learning. Indeed, the examples suggest that everyday practice has an important epistemic function: In analogy with the policy statement, this means that children learn in a language they understand. Scaffolding is best placed when the understood is to be communicated. Our examples illustrate the strong need for particular linguistic support.

Through the lens of educational policy, our contribution suggests a closer investigation of how institutional conditions encourage or hinder the activation of everyday practice. From a research perspective, the need for further investigation and empirical as well as conceptual insights is evident.

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Avoidance Strategies as a Result of Linguistic Overload in Biology Class

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Abstract: Studies in the field of second-language-learners in German showed that students apply different strategies if they are exposed to a linguistic overload in school. These strategies very often result in behaviour of avoidance. In this paper, a case study from biology class illustrates a student named Lela who applies an avoidance strategy: She refuses to read schoolbook texts on her own and the autonomous work on a crossword puzzle, too. To capture the reason for Lela's behaviour this case study uses participatory observation protocols (OP) which are analysed via Key-Incident-Analysis. Moreover, we analysed the respective schoolbook texts and the crossword puzzle. Results reveal that Lela's avoidance strategies are not symptoms of laziness or a lack of interest but linguistic complexity in schoolbook texts and missing support of learning language of schooling.

Students should be critical and literate in scientific phrases and ideas in order to successfully participate in society. Language is one key for being scientifically literate and being capable of acting critically with reference to science in the context of their lives. Therefore the conscious use of a particular language is a prerequisite for "comprehension and communication in a subject" (Leisen, 2011, p. 3) as well as the production of new knowledge (Härtig et al., 2015) in school, in this particular case the use of the German language in science class in school. Language should not be restricted to passive/sole transmission of factual knowledge (Kuplas, 2010). Research in biology education (Nitz et al., 2012; Wellington et al., 2001) as well as in language education (Gogolin et al., 2011; Lange, 2012) shows that the demands upon school-based language in science education differs greatly from languages students use in day-to-day situations. One reason for this difference is found in the different contexts of the use of language (Gogolin et al., 2011; Halliday et al., 1993; Lange, 2012; Schleppegrell, 2001). Languages, therefore, differ in linguistic features depending on the day-to-day context or the context of schooling. Enacted language in the context of education in schools is described as "language of schooling" (in German: *Bildungssprache*: Lange et al., 2010). Introduction into this language of schooling precedes students' understanding of subject as well as un-

30 derstanding the process of scientific knowledge production and moreover applying this knowledge. Second language learners in German often have specific linguistic problems with language of schooling in German speaking countries (Gogolin et al., 2011). The reasons can be found at structural and functional levels (Nitz et al., 2012) which can be recognized at lexical semantic, syntactic and discursive features (Reich, 2008):

- Lexis and semantics: features of terminology and linked meaning.
- Syntax: features of sentence structure (e.g. compound clause, impersonal constructions).
- Discourse: features of stylistic conventions in discipline specific text types.

Studies show that students with German as second language apply different strategies to meet specific requirements in language of schooling (Komor et al., 2008; Leisen, 2005; Stedje, 2009; Steinmüller, 1987). This contribution is about strategies coined as "communicative strategy of Avoidance" (Steinmüller, 1987) or simple "avoidance strategy" (Leisen, 2005) to deal with such requirements in school biology.[1] Avoidance strategies have been described as:

- recourse to simple sentence structure;
- recourse to reduced vocabulary;
- falling silent;
- applying standard solutions (Ehlich et al., 2008; Leisen, 2005; Stedje, 2009).

This paper explains observed avoidance strategies from a case study and compares the strategies and findings with previous findings in literature. Yin (2009) describes a case study as "an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context" (p. 18). Although case studies are often "recognized among the array of qualitative research choices" (p. 19), they can include qualitative as well as quantitative evidence.

We want to start with an introduction into the case description first to "attract attention to the situation itself" (Funder et al., n. d., p. 18), in the subsequent sections the theoretical literature will be applied to the case.

1 Detecting behaviours: The case study of Lela

Lela is 14 years old and attends the last grade of lower secondary school in a Gymnasium (Grade 8) in Vienna. There is a high proportion of students with German as second language in her class. Lela is small compared to her class mates, has dark

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[1] This phenomenon was described as "communication strategy" by Elaine Tarone since 1978, she created a typology of those communication strategies of second language learners (Tarone, 1981).

eyes and wears a headscarf. Throughout biology class she sits in the back row. During one biology lesson the students have to solve a crossword puzzle alone on the basis of two textbook sections within the new topic of metabolism. The questions are about definitions and the students have ten minutes to find the technical terms and finish the puzzle (Table 1). Lela looks in her textbook, skims the two textbook sections, fills in "glucose" in the first row of the crossword puzzle, sets aside her pen and starts a conversation with the observer. She calls his name and asks him for help. He responds that he cannot help her, but she asks him a second time. After refusing to help her a second time she turns to her neighbour and copies the correct terms. She also eavesdrops on her colleagues as they whisper the answers and transfers everything she hears to her crossword. (Observation protocol, OP 28. 5. 2013)

Table 1 Translated questions of Crossword puzzle "metabolism"

Read chapter 1 and 2 and solve the following quiz (sg. means singular)!
1.   Technical term for grape sugar.
2.   Collective term for indigestible substance from plants.
3.   Technical term for multiple sugar.
4.   Tooth decay that is supported by too much sugar.
5.   Technical term for fructose.
6.   Main structural substance in plant cells.
7.   Reserve carbohydrate in muscles and liver.
8.   Technical term for milk sugar.
9.   Multiple sugars, important reserve carbohydrate in plants.

Note: Translation by the authors.
Source: Schermeier et al., 2013, p. 63.

At first it seems that Lela does not like to do the assignment and solve the crossword puzzle on her own as assigned by the teacher. One could impute her being lazy or not interested at all. We want to stay with Lela to further observe her behaviour in order to answer the following questions about the reason for her behaviour:

1. Which regularities and differences can be found in Lela's behaviours in different biology lessons?
2. What factors could have contributed to her behaviours?

2 Methodology

To capture the reason for Lela's behaviour the "hidden [...] sense" (Fürstenau, 2004, p. 29) of this incident (Green et al., 1997) has to be worked out until the hidden "metaphorical [...] message" (Gogolin, 1997, p. 34) can be revealed. This case

study uses participatory observation protocols (Datler et al., 2012; Trunkenpolz et al., 2009) to reveal the metaphorical message. The incident described in the introduction originates from a series of participatory observations from 2013. The data collection took place between April and June in a Viennese Gymnasium, which is known for the wide diversity of students of different first languages. The first author observed Lela's interactions with her classmates and her biology-teacher. Eight observation protocols were written containing impressions and results of field observations which were taken once a week for seven weeks including a double period. Collecting data over a longer period enables the researcher to compare the behaviour of Lela in each of the several biology lessons and to work out regularities and differences, which are important to answer research question 1.

2.1 Key-Incident-Analysis

To look for the hidden meaning in the observed incident displayed in the introduction we applied Key-Incident-Analysis. This method "enables studying specific aspects of everyday life and reveal[s] cultural practices of a social group without applying a complete ethnography" (Kroon et al., 2000, p. 97). According to Erickson (1986) a key event

> [...] is key in that the researcher assumes intuitively that the event chosen has the potential to make explicit a theoretical 'loading'. A key event is key in that it brings to awareness latent, intuitive judgements the analyst has already made about salient patterns in the data. (qu. in Kroon & Sturm, 2000, p. 99)

The incident (Gogolin et al., 2000) in our context demonstrates a representative situation in biology lessons that have explanatory value for structures of the overall situation (Neumann, 2000, p. 187). During analysis "focus is put on those text passages where a hidden meaning is assumed" (Fürstenau, 2004, p. 29). This focus is especially important for this study in order to identify the factors that led to the behaviour of Lela (*research question 2*). Therefore, Ericson (1977; 1986) characterizes the Key-Incident-Analysis emblematic (Kroon et al., 2000). The word "emblem" originates from Greek and means literally inlay work (Lesky, 1968). The baroque emblem has a tripartite structure (Table 2): (1) the *lemma* is a short statement that gets to the heart of a moral or a doctrine; (2) the *icon* is a pictorial representation for the viewer of the doctrine or the moral; (3) the *epigram* reflects upon the other two parts and has the function to explain them (Schöne, 1993). This tripartite structure is transferred to the structure of the Key-Incident-Analysis (Erickson, 1977; 1986). The title is the lemma, the written Key-Incident complies with the icon and the epigram is represented by analysis and interpretation. Like the icon, the written Key-Incident is a secret to the reader with a hidden meaning which can only be revealed by further analysis and interpretation (Kroon et al., 2000). Therefore, all protocols of the observation are analyzed for further Key-Incidents in search for meaning (Fürstenau, 2004) in order to be able to attribute meaning to Lela's behaviour.

Table 2 Structure of an emblem (CCO)

	Key-Incident	Baroque Emblem
1.	Title	Lemma
2.	Written Key-Incident	Icon
3.	Analysis and interpretation	Epigram

2.2 Analysis of comprehensibility of the biology textbook

The first author did not only analyse the eight observation protocols but included the used textbook as well because there could also be hints found that explain Lela's behaviour. The texts in the textbook (Table 4) and the crossword puzzle were analyzed using a statistical linguistic method from Kulgemeyer et al. (2014). The aim of this analysis is to determine the overall "estimation of comprehensibility" (ibid., p. 248) and to get evidence of a possible factor which has contributed to Lela's behaviour while she was skimming the two textbook sections and doing the assignment (*research question 2*). Therefore, six overall measures of text comprehensibility were calculated: (1) mean length of sentence, (2) indicator of comprehensibility, (3) local and (4) global substantival coherence of texts, (5) proportion of technical terms and (6) proportion of technical terms used only once.

The Measure "Indicator of comprehensibility" (number 2) is a measure that determines whether or not the respective grade can understand this text at all (K = 11 would mean a text is appropriate for 11th graders). A further measure for comprehensibility of texts is the coherence of texts (number 3 and 4). Coherence is reached if different parts of a text are comprehended by a reader (Kulgemeyer et al., 2014). Starauschek (2006) differentiates between local coherence among consecutive clauses and global coherence of clauses far away of each other. We calculated the local and global substantival coherence. The fifth and sixth measure is the overall use of technical terms in the text and the relation with the last two proportions: Technical terms and technical terms used only once.

Table 3 Measures of text comprehensibility

Measure	Formula
(1) Mean length of sentence	$s = W/S$
(2) Indicator of comprehensibility	$K = 0.2656 \times s + 0.2744 \times MS/W \times 100 - 1.694$
(3) Local substantival coherence of text	$lsk = LSK/S \times 100$
(4) Global substantival coherence of text	$gsk = SUB2/SUB \times 100$
(5) Proportion of technical terms	$fw = FW/W \times 100$
(6) Proportion of technical terms used only once	$fw1 = FW1/W \times 100$
Description of variables	
W = total count of words	S = total count of sentences
MS = count of words with three or more syllables	LSK = count of identical nouns in consecutive clauses
SUB_2 = total count of nouns in text minus nouns occurring twice or more often	SUB = total count of nouns in text
FW = total count of technical terms	FW_1 = total count of technical terms occurring only once

Note: Formulas and abbreviation of variables were not translated.
Source: Kulgemeyer et al., 2014.

Table 4 Schoolbook texts

Sugar, starch, cellulose, dietary fibres & Co — Which compounds belong to carbohydrates?	
Carbohydrates are composed from the chemical elements carbon, hydrogen and oxygen. This explains their name. The first syllable stems from carbon. The ratio of hydrogen and oxygen is 2:1, like in water.	Thus the second syllable refers to the Greek name for water (= hydros). Carbohydrates are produced via photosynthesis in green plants.

CARBOHYDRATE	SYMBOL	EXAMPLES	OCCURENCE
simple sugar (monosaccharide)		grape sugar (glucose) fruit sugar (fructose)	fruit, honey
disaccharide (disaccharide)		cane- or beet sugar (sucrose) malt sugar (maltose) milk sugar (lactose)	reserve substance in fruits and beets in germinating grains, beer milk, dairy products
multiple sugar (polysaccharide)		starch	reserve carbohydrate in plants — in tubers and fruits
		glycogen	reserve carbohydrate in liver and muscular system
		cellulose	structural substance in plants (mostly cell walls)
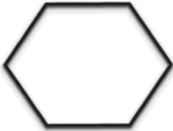
Check the facts for carbohydrates. What benefits do they have? Which problems can they cause in diet?

PRO	CONTRA
Supply for energy — nerve cells and brain cells get their energy mostly from grape sugar; therefore a constant blood sugar level is important; is controlled by hormones; short-chain carbohydrates are quickly absorbed by the blood.	Short-chain sugars are mainly responsible for emergence of caries; Bacteria break down sugar in the mouth cavity, the resulting acids attack the substance of the teeth.
Support digestion in form of dietary fibres. The term originates from the 19th century and includes indigestible compounds from plants — in these times it was thought that they are useless, namely ballast. An important dietary fibre is cellulose.	If one takes more carbohydrates (in particular simple sugars) as needed for energy supply, the sugars are stored as fat in the body; a consequence is increase in weight; a possible secondary affection is diabetes.
The so called "empty carbohydrates" (e.g. white sugar, in white bread and highly sugared drinks) give a quick energy supply.	After absorption of the so called "empty carbohydrates" the blood sugar level rises quickly, but decreases through hormones quickly as well. This raises the risk of getting diabetes.

Note: Translation by the authors.
Source: Schermeier et al., 2013, p. 62.

3 Results

In this section the results are presented: Key-Incidents from the participatory observation and the assessment of the comprehensibility of the related textbook sections. The Key-Incidents are summarized and were named after the taught biological topic. For the used text sections a linguistic statistical analysis is presented and compared with previous results of research.

3.1 Key-Incident: "Animal experiments"

Students assembled in groups and got the task to design a role play with the topic "experimental animals" that would be filmed later on. The teacher gave materials and information for preparing that role play. The students had already worked through the material during the lesson before the role play task was assigned. In this lesson the students gathered again to plan the details:

> The groups that were formed last lesson each had five minutes to prepare the role play. Lela and her three colleagues (all female) are the first group. At Lela's desk are a soft drink bottle, an orange folder and a paper bag. Right after the starting signal given by the teacher Lela gets up and goes over to her group members who remained seated. With Lela leading the discussion the girls work together to decide who will take which role. She points at each girl who nods approvingly. Two times within the five minutes

Lela raises her voice above the babble of voices of the whole class: "I enter the scene and say 'There are alternatives!'" When the teacher passes by after four minutes and asks the group whether they need more time for preparation, Lela affirms it immediately. (OP 17. 4. 2013, ll. 22—37)

3.2 Key-Incident: "Nuclear accident"

After debriefing the film "Die Wolke" (by Gregor Schnitzler, 2006) with the students, the teacher hands out several newspaper articles dealing with nuclear accidents. The following observation was made:

"I want one group working on the topic of Seibersdorf. There has been an accident recently — I hope you read the newspaper every now and then. Ah, and we need groups for Fukushima." The groups assemble. Lela joins with Isabella and Ana. Once they are together they receive three articles about the accident of Seibersdorf. Lela starts reading immediately. [...] The teacher explains: "first read the text, then after you finish reading summarize the text you just read" [...] Lela raises her head from her article. "Third", the teacher continues explaining, "all others are expected to ask questions about the article [...] and then we will conclude the assignment with any remaining open questions [...]". All students start reading their newspaper articles. Lela opens her school bag and takes out a squared paper and a roller pen. The empty paper lies left of her, the newspaper article right in front of her. She starts writing. After a few minutes Isabella looks up and puts her empty sheet of paper in front of her. Lela looks at her neighbour and also to Ana. They decide to write the summary together, Lela puts her pen aside. Isabella writes as Lela dictates the text to her and watches Isabella's writing over her shoulder. After some time Lela starts writing again on her sheet of paper. She looks shortly at the paper of her neighbor. After that the girls discuss how they could structure their summary. They agree on starting the summary with the cause of the accident [...]. (OP 15. 5. 2013, ll. 60—81)

3.3 Key-Incident: "Metabolism"

The students are asked to read two texts about the new topic "metabolism" in their textbook and are told to work individually to use the knowledge from the reading to solve the crossword puzzles. After the working phase the teacher makes oral examinations. The following situation could be observed during the working phase:

"Let us open the book to page 62," starts the teacher as she is introducing the next biological topic. The students are asked to solve two crossword puzzles alone that focus on the topic of metabolism. The information about the main nutrients of food (carbohydrates, fat, proteins, etc.) needed to solve the two puzzles can be taken out of two textbook sections. [...] Lela looks for half a minute at the two textbook sections and the book page where the first crossword puzzle is found. The questions ask for technical terms in regards to the field of metabolism. She points with her left index finger at the first question, takes her pen and writes 'glucose' into the first row. She puts the pen aside and looks at Isabella. A few seconds later she looks at her book page and then looks at me: "Could you help me with my task please?" [...] I explain to her, that I attend this class to learn by myself and that I am not able to help her. She asks for help a second time and I try to explain to her why I will not help her. She frowns, knits her eyebrows and turns to Isabella. She looks at Isabella's crossword and transfers

Isabella's solutions to hers'. Apart from three words the first crossword puzzle is completed. Mia from the front row turns around and whispers the terms cell wall and starch to them. Lela transfers the answers into her crossword, looks at me, and turns her page to the second cross-word puzzle. She leans to her left to Isabella and her colleagues there. "Number one is 'saturated'" states a girl which sits three seats next to Lela. [...] Lela writes 'saturated' into the first row. The teacher starts controlling the crossword puzzles. (OP 28. 5. 2013, ll. 39–57).

3.4 Statistical measures of the schoolbook texts

The Key-Incident "metabolism" demonstrates the behaviour of Lela and her work with the textbook. For clarification of the second research question we analyzed the respective schoolbook texts with the several statistical measures. "Comprehensibility as a feature of a text is not directly observable" (Kulgemeyer et al., 2014, p. 242), thus we used the measures presented in the methods section for an estimation of the text comprehensibility.

Table 5 Results of the comprehensibility

Measure	Formulas & Results
Mean length of sentence	$s = W/S = 304/31 = 9.8$
Indicator of comprehensibility	$K = 0.2656 \times 304/31 + 0.2744 \times 109/304 \times 100 - 1.694 = 10.75$
Local substantival coherence of text	$lsk = LSK/S \times 100 = 8/31 \times 100 = 25.8\%$
Global substantival coherence of text	$gsk = SUB2/SUB \times 100 = 61/122 \times 100 = 50\%$
Proportion of technical terms	$fw = FW/W \times 100 = 43/304 \times 100 = 14.14\%$
Proportion of technical terms used only once	$fw1 = FW1/W \times 100 = 15/304 \times 100 = 4.93\%$
Description of variables & results	
$W = 304$ = total count of words	$S = 31$ = total count of sentences
$MS = 109$ = count of words with three or more syllables	$LSK = 8$ = count of identical nouns in consecutive clauses
$SUB_2 = 61$ = total count of nouns in text minus nouns occurring twice or more often	$SUB = 122$ = total count of nouns in text
$FW = 43$ = total count of technical terms	$FW_1 = 15$ = total count of technical terms occurring only once

Note: The resulting numbers are compared with literature and interpreted in conjunction with the observations in the discussion in facet 2.

Additional information for the calculations is summed up in the following section: There were difficulties in calculating of the *mean length of a sentence* because a table included in the text that contained information where semicolons were used as punctuations. We applied the rule that each row in the table counts for a sentence, each semicolon counts as a full stop. For calculating the *local substantival coher-*

ence of text the pairs of nouns in consecutive clauses were counted (= LSK): (2) / (3); (4) / (5); (5) / (6); (6) / (7); (9) / (10); (13) / (14); (24) / (25); (25) / (26). The count of paired sentences is 8. Finally, the total count of technical terms in total and technical terms used only once was determined. In order to proceed with the research and analysis rules to define technical term in this particular study must be set up. These two texts were the first in the schoolbook on the topic of metabolism. Therefore, all terms have to be looked at as technical terms which are necessary for communication with experts in this field. This also applies to words which are used in day-to-day contexts. For example: One can assume that a 14 year old has already heard of carbohydrates in school as well as in everyday life. But, it cannot be taken for granted that the students have the understanding to attribute the right meaning to the term "carbohydrates" (Berck, 1999), and, as a consequence, we qualify this term as a technical term. Taking these rules into account, the following technical terms were identified: starch, cellulose, dietary fibers, carbohydrates, carbon, hydrogen, photosynthesis, monosaccharide, simple sugar, disaccharide (and the German translation), glucose, fructose, sucrose, reserve substances, maltose, lactose, polysaccharide, glycogen, cell wall, hormone, diabetes, constant. The total amount of technical terms is 43, and the total amount of technical terms used only once is 15.

4 Discussion and theoretical outlook

The first observation of Lela's behaviour at the beginning of this article has shown a student that does not follow the instructions of the teacher but copies the solutions of the crossword assignment from her peers (OP 28. 5. 2013, ll. 50—55). She only skims the text instead of reading accurately (OP 28. 5. 2013, l. 39). We want to understand her behaviour in this biology class. Therefore, her behaviour in other biology lessons in the light of the research questions was taken into account. In this section different facets of the biology class are discussed to paint the picture of Lela's behaviour and to develop possibilities of transforming the biology class into a multilingual environment that is sensitive to the language needs of the various students.

4.1 Facet 1: Lela's behaviour as a reaction to forms of teaching and social arrangement

If the Key-Incident *metabolism* is compared to the other two Key-Incidents *nuclear accidents* and *animal experiments* it is obvious that Lela's behaviour was totally different. During the incidents *nuclear accidents* and *animal experiments* she engages actively in biology class which was demonstrated in her having a leading position during the preparation for the role play (OP 17. 4. 2013, l. 32), and during the task of the summaries about nuclear accidents, when she dictates a text to her group and

also writes the summary by herself (OP 15. 5. 2013, ll. 77—78). It is remarkable that in both lessons the social arrangement is group work, where the observed students learn by discussing (biological relevant) phenomena. Student discussion enables those learners — and especially Lela — to engage actively in speaking language, like Schmölzer-Eibinger et al. (2012) reports, ultimately allowing the students to determine and understand meanings in a social context (Heintze, 2009). Another difference between the incidents analyzed is that the students in the incident *metabolism* work on the crossword assignment alone to prepare for being tested in a teacher centered test format afterwards. According to Lengyel (2012) a teacher centered test format is characterized by the teacher asking a student a question that only has one correct answer. In the other incidents the students prepare for a role play and a short presentation of the summaries of the newspaper articles. In the course of the latter incidents the students with second language German have the possibility to solve collaboratively their tasks without time pressure. Additionally, both learning environments draw on supportive characteristics in terms of language which are proposed by Gibbons (2002) and Kniffka (2010) for a language sensitive specialized class:

- During the animal experiments incident the students are confronted with an authentic situation for communication via the role play (Kniffka, 2010). During the planning phase of the group activity the learners get the chance to plan and try out complex linguistic utterances (Kniffka, 2010) and are able to find answers to problems (Schmölzer-Eibinger et al., 2012) as a result of the authenticity of this particular assignment. This setting has two advantages: the main proportion of enacted language is done by the students instead of the teacher (Heintze, 2009) and the students do not have to answer to the teacher within seconds (Kniffka, 2010).

- Enough time for planning linguistic utterances was also available in the "nuclear accidents" assignment. However, in this case, the planning is written down in summaries. For Schmölzer-Eibinger et al. (2012) writing can be seen as deceleration of lessons because by "expanded situations with language" the students get the possibility to produce more complex statements. Compared to the "animal experiments" incident there was a cooperative written task included. This cooperative writing enables the students to work on certain wordings, to negotiate meaning with each other (Heintze, 2009), and to refine and reflect their writing continuously (Schmölzer-Eibinger et al., 2012).

In both Key-Incidents the learning of Biology is linked to language learning because the learning environment and the tasks link the use of competences within the language of schooling and learning the biological topics. Therefore, acquisition of new knowledge and expansion of language competences is made possible (Lange et al., 2010).

From her active engagement we conclude that Lela feels comfortable in certain learning environments. She communicates with her colleagues, helps writing texts, conscientiously produces her own texts and explicitly plans her own text script

40 for the role play: "I enter the scene and say 'There are alternatives!'" (OP 17. 4. 2013, l. 35). What is the cause for Lela to show different behaviour in the Metabolism-Key-Incident? One reason can be found in the social form of the task and, hence, the pre-scribed interactions. Unlike the other Key-Incidents Lela has to work on her own and is not able to exchange the results with her colleagues during the task. An aggravating factor is the limited time for filling in the crossword and the testing by the teacher afterwards. Lela applies an avoidance strategy as a reaction to the (non-) social form of this task and the stress: she refuses to read the schoolbook texts on her own and refuses to work autonomously on the crossword. Maybe the difficulty of the respective schoolbook text further encouraged her refusal and lead her to seek help.

In psychology avoidance strategies can be seen as the "core component of all fears" (Meszaros, 2009, p. 763). In Lela's case the fear of being tested and not knowing the correct answer could be her motive for her "maintenance of image" (Stedje, 2009) to show "as few language deficiencies as possible to the communication partner" (Stedje, 2009, p. 160). Lela is in an emergency and seeks help from the observer: "Could you help me with my task please?" (OP 28. 5. 2013, ll. 45—46). Tarone (1981) describes this form of communication strategy as "appeal of assistance". Stedje (2009) calls it the "help seeking strategy". A characteristic of this strategy form is meta-communicative utterances from students like actively verbally seeking help (Stedje, 2009), like in Lela's case.

The strategy *appeal of assistance* does not bring the expected result for Lela. She turns to her classmates but does not ask for help but copies their solutions into her crossword (OP 28. 5. 2013, l. 51). All of the students around Lela turn this task that was meant to be done individually as assigned by the teacher into group work (OP 28. 5. 2013, ll. 52—53). However, in this improvised group work, all of the students, including Lela, do not engage in collaboration to determine the meanings of the terms and texts (Schmölzer-Eibinger et al., 2012) but, communicate with each other to simply exchange correct technical terms with the obvious aim to shine in front of the teacher in the testing afterwards. The main question needing to be determined by the instructor for this particular task is whether the task fulfills its function, in particular: are the technical terms correctly identified and transferred to the crossword? Gropengießer's definition of terms (2010) and also Reich's (2008) features of language of schooling help us to answer this question. Lexical and semantical features of language of schooling come along with an attribution of meaning. This applies to technical terms as well. A term is never part of reality itself (Gropengießer et al., 2010); the used verbalisms for the term are only representatives and one cannot know whether the term is understood or only used as an empty phrase (Berck, 1999). Based on the observation, one can assume that Lela could not attribute meaning to the technical terms. Except for one technical term, which was found after a short glimpse into the schoolbook and transferred into the first row, all other crossword terms were copied from her colleagues. Therefore, the aim of the task was not reached.

The inference that can be made from these examples is that Lela reacted to two different learning environments in different ways. Lela was intensively engaged when she was a part of a student centered group work but, she was not actively engaged in learning during the assignment for individuals with schoolbook texts in *metabolism*. Key factors seem to be the missing interaction with her classmates, the time pressure, and the final testing. One clue for her need for interaction was the request for help. It was remarkable that Lela did not ask for the solution of the crossword (e.g. "Oh — I know it but ah how is it called", Stedje, 2009, p. 160) but rather asked for help at the level of the task itself.

4.2 Facet 2: Lela's behaviour as a reaction to the schoolbook texts

In the previous facet, the social aspects of the learning environment were discussed as drivers for Lela's avoidance strategy. In this facet, we analyze the schoolbook and the possible reasons why Lela turned away from the book shortly after having a glimpse into her textbook (OP 15. 5. 2013, l. 39) instead of working on her own like in the incident *nuclear accidents* and exchanging afterwards (OP 15. 5. 2013, ll. 74—81). Statistical analysis on the basis of the language can be inferred that the features of the schoolbook texts are one reason for Lela's behaviour. For further reasoning we compare the results of the measures with reference values from other schoolbook studies (Rabe et al., 2005; Starauschek, 2006):

Table 6 Results of the comprehensibility compared to recommended reference values

	Schoolbook texts	Reference value	Source
Indicator of comprehensibility	$K = 10.75$	—	—
Local substantival coherence of text	$lsk = 25.8\%$	$lsk = 51\%$ $41\% < lsk < 65\%$	Starauschek (2006)
Global substantival coherence of text	$gsk = 50\%$	$gsk = 80\%$ $70\% < gsk < 89\%$	Starauschek (2006)
Proportion of technical terms	$fw = 14.14\%$	$fw < 7\%$	Rabe et al. (2005)
Proportion of technical terms used only once	$fw_1 = 4.93\%$	$fw_1 < 3\%$	Rabe et al. (2005)

The comparison of the schoolbook texts (given in the supplementary material in German and translated into English) with the set of reference values shows that all of our detected measures are worse that they should be, regardless of being higher or lower.

- The indicator for comprehensibility of 10.75 (K) is relatively high for 8th graders — that means roughly two levels too high. Although the measure K cannot foresee which text fits to which level and can be a coarse measure as to whether the text is appropriate or not (Kulgemeyer et al., 2014).

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- Both, the local and global substantive coherence are low. That means there is a small amount of nouns that are repeated in the subsequent clause (local) or in the text in general (global). A gain of knowledge by the students is therefore made difficult.
- Finally, the proportion of the technical terms shows another difficulty of the schoolbook text. Approximately 14% technical terms is a very high proportion, 43 technical terms in a relatively short text is not easy to deal with. Moreover 4% of these technical terms are only used once!

A high proportion of technical terms are a recurring theme in science education research. A lot of papers state "that science education is overloaded with technical terms" (Nitz et al., 2012, p. 124 — they also give a thorough literature review on that topic) and that a reduction of using the technical terms is needed (ibid.). Schoolbooks are especially overloaded with technical terms. A study of Merzyn (1994) found that:

- Every sixth word is a technical term and every 25th word is a new technical term.
- In schoolbooks, 50% of the technical terms are only occurring once.

A similar result could be found in the schoolbook used by Lela. Besides the high amount of technical terms the typical syntax for the language of schooling is obvious (Reich, 2008). The combination of the measures *mean length of sentences*, the *indicator of comprehensibility* and cohesion of the text with the syntax results in very low comprehensibility for the students. Additionally the texts have linguistic difficulties for second language learners: passive constructions ("carbohydrates are formed"; "carbohydrates are composed of…"), chains of attributes ("indigestible plant based compounds"), and participial attributes ("germinating"). If second language learner students recognize that they do not understand sentence construction, they react with avoidance strategies (Kemp et al., 2008).

Our assumption that the schoolbook texts lead to frustration from Lela is strengthened after the text analysis. The reasons can be found in lexical semantical and syntactical features: Due to the high amount of technical terms and complex sentence structures Lela has "problems of linguistic comprehensibility" (Kuplas, 2010, p. 187) that have led to her avoidance of reading the schoolbook text and completing the crossword on her own. Fear of the testing and linguistic deficiencies force her to ask for help. She did not get the help; therefore she copied the solution to finish the task.

4.3 Conclusion: Supportive elements of learning environments in order to counter avoidance strategies and theoretical underpinnings

Both facets of the observed biology class revealed that Lela showed different behaviours in different learning environments. There were several characteristic features for supportive language learning environments that helped Lela in participating in the class and assignments:

▪ Enough planning time for linguistic utterances
▪ Working in small groups
▪ Active communicative engagement
▪ Authentic situations for embedding communication
▪ Writing as a deceleration of lessons

Each of these features is a supportive element of learning environments for students learning German as second language (Gibbons, 2002; Kniffka, 2010) on their way to master language of schooling as well (Lange et al., 2010). These supportive elements scaffold the learning "in the zone of proximal development" (Lange et al., p. 32). Gibbons (2002) and Kniffka (2010) also use this metaphor of scaffolding that originates from the social constructivist learning theory by Vygotsky (1987). With the help of instructional planning and interaction in the lessons the "gap between the ability of a learner and the goals that are reachable with full support" (Kniffka, 2010, p. 1) should be filled. Although we do not have a text analysis of the Key-Incidents *animal testing* and *nuclear accidents,* we can infer from Lela's behaviour that the supportive features for linguistic development gave her the possibility to deal with potential difficulties.

In Key-Incident *metabolism* she is confronted with a learning environment that is not very supportive in terms of the given principles for instruction planning and interaction (Gibbons, 2002; Kniffka, 2010). Specifically the schoolbook texts are far from the competence level from the class (Kniffka, 2010) and lead to avoidance behaviour by Lela. The analysis of comprehensibility of the biology textbook, especially on the level of technical terms, showed that the difficulties for learning the language of schooling may be contributed to her troubles accomplishing the task. Linguistic overload found at lexical semantical and syntactical levels were not softened by supportive linguistic scaffolding features. Lela's missing previous knowledge of the German language contributed as well. In addition to interaction with bad local and global text cohesion, Lela's comprehension of the texts is insufficient for fulfilling the teacher's task.

Due to the complexity of the schoolbook text and missing linguistic scaffolding Lela's avoidance behaviour demonstrated a new aspect that has not been described in literature yet. Leisen (2005), Ehlich et al. (2008) and Stedje (2009) described avoidance behaviour in the context of "language production (reading & writing)" (Leisen, 2005, p. 2). Lela shows avoidance strategy based on perception of language. Her strategy of not reading the schoolbook text equates falling silent in terms of language production. In both cases the "transmission of information stops totally" (Stedje, 2009, p. 160). Interesting in her case is the development of further strategies to reach the goal, to fill in the crossword puzzle. As a result of her avoidance of reading the text further hindered the autonomous completion of the task ultimately resulting in Lela asking for help and copying the answers. Thus, she shows not only linguistic but also a methodological avoidance behaviour.

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Colloquial and Academic Language in Interaction: Students' Linguistic Strategies During a Collaborative Task in History Class

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Abstract: In recent years there has been a growing interest in the topic of academic language in the context of educational success of (mostly) immigrant children. However, most studies focused on academic language only and did not consider the role of other linguistic resources such as colloquial language for the development of academic language. In this paper, we will discuss the interplay between both registers by presenting an analysis of students' (*n* = 3) utterances during a collaborative task in history class. Data was collected in a College for Higher Vocational Education (upper secondary level; ISCS 10) in Vienna where one of the researchers was working as a history teacher. The interaction analysis and interpretation focus on strategies students employ to solve the exercises. The following strategies are identified and explained: mutual explanation for a better understanding of, e. g., technical terms, collective planning and monitoring of the writing process as well as orientation along the structure of other texts. Since colloquial and academic language seem interrelated in these strategies, this paper combines the concept of academic language and linguistic repertoire.

Keywords: academic language, colloquial language, classroom interaction, interaction strategies, linguistic repertoire, history class

In recent years intensive discussions have revolved around obstacles for the academic success of students whose language use does not comply with language use at school, focusing especially on immigrant students and students from families with low socio-economic status (Cummins, 2013; Gogolin & Lange, 2011; Schleppegrell, 2004). In this context, supporting the acquisition of the language/s of schooling is often seen as a key factor, whereas a special focus lies on the academic register of the particular language/s of schooling that are necessary to master school related tasks (Cummins, 2008; Quehl & Trapp, 2013, pp. 13−25; Schleppegrell, 2004, p. 21).

In this paper, we examine the interplay between academic language[1] and colloquial language during collaborative processes in a linguistically very diverse class by analysing two interactions. These interactions were recorded during a group-work

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[1] The term "academic language" refers to the academic registers of the particular language/s of schooling which, according to Cummins (2008), are important to academic success, in German "Bildungssprache" (Gogolin & Duarte, 2016). We follow Halliday's (1978) notion of register as a situation-specific variation of language.

48 phase during a history lesson in a College for Vocational Education (upper secondary level; ISCS 10; Berufsbildende Höhere Schule) in Vienna, Austria. The students recorded themselves with their mobile phones during a collaborative task and sent the recordings to their teacher, who is also one of the authors of this paper (for further information, see section 3).

The purpose of this study was to better understand the linguistic practices and especially the role of academic language in an interactional setting in which the teacher does not intervene unless the students ask for it explicitly. The following section provides the theoretical background of our study, focusing on two core concepts: "academic language" and "linguistic repertoire". The underlying assumption of this study is that academic language, conceptualised as a register, is not isolated from other linguistic resources in the repertoire of speakers. The analysis represents a first step to combine these concepts from an interactional usage-centred perspective.

1 Core concepts

As mentioned above, two theoretical concepts inform our analysis of the data: the notions of academic language and linguistic repertoire. The synthesis of these two concepts forms the analytical lens for the examination of the data.

1.1 Academic language

When children enter the school system, they encounter linguistic practices that differ from the linguistic practices of family communication in aspects of explicitness, complexity and cognitive demand (Schleppegrell, 2004, pp. 7–16). Children growing up with the language of schooling in this stage can rely on their colloquial language as being a good basis to cope with this new linguistic demands during their first years in primary school (Michalak, Lemke & Goeke, 2015, p. 49), multilingual children on the other hand experience not only the differences in explicitness, complexity and cognitive demand but also a gap between the multilingual practices of their everyday life and the monolingual practices in school. These different challenges need to be taken note of, especially as the language children need for school-related tasks becomes more complex over the years (Schleppegrell, 2004, pp. 1–4). This part of the linguistic repertoire — the academic language — is especially important for performing in formal education (Gogolin & Lange, 2011; Heller & Morek, 2015), as it is a register used for "presenting information in highly structured ways, and in ways that enable the author/speaker to take an assertive, expert stance toward the information presented" (Schleppegrell, 2001, p. 451).

The concept of academic language, "Bildungssprache" in German, is based on Halliday's (1994) *Functional Grammar*, Bernstein's (1971) work on class-specific linguistic socialisation as well as on the concept of basic interpersonal communicative

skills (BICS) and cognitive academic language proficiency (CALP) established by Cummins (2008, p. 71):

> [...] in order to draw educators' attention to the timelines and challenges that second language learners encounter as they attempt to catch up to their peers in academic aspects of the school language. BICS refers to conversational fluency in a language while CALP refers to students' ability to understand and express, in both oral and written modes, concepts and ideas that are relevant to success in school.

While Cummins (1979, 2008) focuses on school environments, Michalak, Lemke, and Goeke (2015) find academic language to be important for knowledge transfer in every educational context. Heller and Morek (2015) further distinguish three different functions of academic language, namely academic language "as a *medium of knowledge transmission* (communicative function); [...] as a *tool for thinking* (epistemic function); [and] [...] as a *ticket and visiting card* (socio-symbolic function)" (Heller & Morek, 2015, p. 175; italics in original). These three functions imply that academic language is much more than specialised lexical knowledge, as it also includes special (linguistic) performance abilities such as knowledge of certain school-specific text genres (Feilke, 2014; Heller & Morek, 2015; Schleppegrell, 2004, pp. 82–112).

Key characteristics of oral and written academic language are aspects of written language mode. These aspects are explicitness, decontextualisation and complexity with specific features on a lexical, syntactical and discursive level such as nominalisations and elaborate noun phrases, complex clauses and specific stylistic standards (Heller & Morek, 2015, p. 176; Herzog-Punzenberger & Schnell, 2012, p. 234; Koch & Oesterreicher, 1985). Table 1 gives a rough overview of different features of academic language according to Heller and Morek (2015, p. 176):

Table 1 Features of academic language (Heller & Morek, 2015, p. 176)

Lexical features
- Quality of lexis: diverse, subject-specific, e.g.
  prefix verbs (e.g., *to reverse, to preempt, to substitute*)
  nominal compounds (e.g., bar graph, 2-digit number, bottom line)
  standardized technical terms (*e.g., rectangular, rule of three*)
- Lexical density, e.g.
  Content words instead of pronouns
  Nominalizations and elaborate noun phrases (e.g., *legilization, editing, average breath-holding capacity*)

Syntactic features
- Sentences instead of prosodic segmentation
- Local coherence by
  Cohesion markers (e.g., conjunctions)
  Complex sentences (e.g., relative, conjunctive, and disjunctive clauses; infinitival, participle clauses)
- Mode of representatiton:
  Declarative mood
  Impersonal expressions (e.g., agentless passives)

Discursive features

- Speaker roles and turn taking organization (pre)determined;
- Monological forms (e.g., lecture, presentation, essay);
- Subject-specific text types (e.g., minutes, report);
- Stylistic standards (e.g., objectivity, well-structured, adequate length of text).

To succeed at school, students need a high level of academic proficiency in the language/s of schooling (Schleppegrell, 2004, pp. 39—42) and schools are responsible for supporting students in acquiring it (Gogolin & Duarte, 2016, p. 480) but seem to fail to achieve this goal in more and more cases. In Austria, for example, this weakness is indicated by the fact that the number of children who drop out of school is significantly higher amongst children who speak languages other than German at home than among children who grow up with German, even taking into account differences in students' socio-economic status (Herzog-Punzenberger & Schnell, 2012, pp. 252—255; Vetter, 2015, pp. 238—239). Thus, many experts argue that academic language should be considered at all school levels and in all subjects (Gogolin & Lange, 2011; Quehl & Trapp, 2013; Brandt & Gogolin, 2016).[2]

1.2 Linguistic repertoire

The analytic scope of this study also implies the sociolinguistic concept of linguistic repertoire in order to contextualise academic language within other linguistic resources incorporated by the students whose interactions we examine.

The term "linguistic repertoire", also termed "verbal repertoire", has undergone distinct developments and theoretical framings: It was introduced by John Gumperz (1964) and initially focused on the situated employment and functions of all linguistic resources — for example named languages, dialects or registers — during interaction in a given speech community. These linguistic resources are seen as fluidly interrelated and linguistic behaviour in interactions and language choice as restricted by grammatical and social norms:

> Ultimately, it is the individual who makes the decision, but his freedom to select is always subject both to grammatical and social restraints. Grammatical restraints relate to the intelligibility of sentences; social restraints relate to their acceptability. (Gumperz, 1964, p. 138)

Recent publications (Blommaert & Backus, 2013; Busch, 2013) include general societal and global developments to elaborate a differently nuanced definition. Backus and Blommaert (2013) base their understanding of linguistic repertoire on the concept of super-diversity (Vertovec, 2007) and the acknowledgement that

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[2] However, other languages that students bring with them should also be considered, especially as "multilingual resources offer the potential to support […] school-based learning [and] it is difficult to make the most effective use of these resources in an education system that assumes a monolingual and monocultural bias" (French, 2016, p. 229).

communicative practices can no longer be analysed through the lens of earlier understandings of language (Blommaert & Backus, p. 14). As a result, they call for usage-based approaches to communication. Patterns of language use and learning these days are more flexible or polycentric.[3] The consequences of their perspective are the acknowledgement that knowing a language never means knowing "all the resources of language" (Blommaert & Backus, 2013, p. 15) and that repertoires are "individual, biographically organized complexes of resources" that are tied to various learning contexts (Blommaert & Backus, p. 21) and influence the ways individuals use their linguistic resources.

Apart from Blommaert's and Backus' (2013) understanding, Busch's (2013) redefinition of the notion of linguistic repertoire implies a poststructuralist perspective. Distancing herself from merely observing the repertoire as part of interactions whose "rules and conventions" (Busch, 2013, p. 22) are examined, she implies the subjective perspective, in German "Spracherleben" in three dimensions: the embodied, the emotional and the historical-political dimension (Busch, 2013, pp. 22—23). As a result, she argues that a particular methodology is necessary to access the intertwined relationship between linguistic resources and their deeper subjective meanings. In her work, she combines a biographical and multimodal approach to do so (Busch, 2013).

As the analysis of the data is conducted from an interactional point of view, it is not possible to include the subjective and ideological embeddedness that are highlighted in more recent definitions of the linguistic repertoire, although such an approach would have great potential and could open a wide field of reflection. This study represents a first step in this direction — starting from the interactional approach.

2 The empirical study — sample, context and research questions

Combining the two concepts of academic language and linguistic repertoire can be seen as a fruitful way to deepen our understanding of a usage-based approach to academic language, because the term of linguistic repertoire implies the enchainment of linguistic resources in the interactional context. Moreover, this perspective is consistent with pedagogical views on academic language that highlight the importance of using all linguistic resources in linguistic education (Reich, 2013, p. 53). The aim of this paper is, thus, not only to contribute to research on academic language and linguistic repertoire, but also to gain knowledge on students' communicative practices in a group-work task in order to raise teachers' and teacher trainers' awareness

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[3] Further characterisations of linguistic repertoire taking into account super-diverse (Vertovec, 2007) conditions were developed by many sociolinguists when analysing interaction and linguistic practice labelled as, for example, "language crossing" (Rampton, 1995), "translanguaging" (García, 2009; Blackledge & Creese, 2010), "metrolingualism" (Otsuji & Pennycook, 2009), "mobile resources" (Blommaert, 2010), "polylingualism" (Jørgensen, Karrebaek, Madsen & Møller, 2011) and "translingual practice" (Canagarajah, 2013).

for this aspect when planning learning processes in class. Hence, two interrelated questions guided the research process:

1. Which strategies of language use do students employ in reading and writing school-specific texts in a group-work task?
2. How do these strategies reflect the intertwined relationship between academic language and colloquial language within students' linguistic repertoire?

The data for this study was collected in May 2016 at a College for Higher Vocational Education (upper secondary level; ISCS 10) in Vienna, Austria. As in many Viennese schools, the observed class is linguistically diverse. Apart from German, other languages observed included Albanian, Bosnian/Croatian/Serbian, Macedonian, Hungarian, Italian, Tagalog, Punjabi and Slovakian. At the time of recording, there were 26 students (between 16 and 17 years of age) in the class and they were asked to complete a collaborative task in groups of two or three. The students themselves recorded their conversations with one mobile phone per group. The teacher, who is one of the authors of this paper, informed the students who wanted to participate and their parents several weeks in advance that the data would be used for academic purposes only. As the classroom is "polycentric" (Blommaert & Jie, 2006, p. 35) and there were several interactions going on simultaneously, the teacher — who was at the same time the researcher — considered it useful for each group to make a separate audio recording. Furthermore, the mobile phone as a recording tool was regarded as less intrusive and more compatible with the students' habits than, for example, a Dictaphone. Moreover, the students voluntarily handed in their recordings. The teacher/researcher received four recordings via e-mail, two of which were analysed. These two were chosen, because they were recorded from the beginning to the end of the group-work process. Although the teacher had explained that all parts of the interaction had to be recorded, two out of four recordings contained only the results of their work and not the working process. The chosen recordings, which we refer to as recording 1 (Daniela, Marion, and Silvia[4]) and recording 2 (Milana and Manuel), are 25:08 and 25:22 minutes long, respectively, and were transcribed using *EXMARaLDA*[5] following Hoffmann-Riem's (1984) conventions[6]. In these simple transcripts, "paraverbal and non-verbal elements of communication are usually omitted. The focus of simple transcripts lies on readability (Dresing, Pehl, & Schmieder, 2015, p. 23). As we aimed to identify how the students gain a better understanding of content-related knowledge, we decided to approach categorisation inductively. The two categories formed refer to the identified students' strategies of language use and the interaction between academic and colloquial language therein. For interaction analysis, we selected conversational sequences in the two recordings that contained (often mutual) explanations of concepts, technical terms,

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[4]   All student names have been replaced with pseudonyms.
[5]   http://www.exmaralda.org/ [21/12/2016]
[6]   Conventions are given in the appendix.

image content and extracts from texts (strategy/category 1) as well as collaborative development of the text (strategy/category 2).[7] In section 4 we present our main findings relying on selected conversational sequences from recording 1.

Concerning the content of the history class, students had to deal with a group-work task consisting of several partial tasks on "lèse-majesté" (in German: "Majestäts-beleidigung") in Austria in the 19th and 20th century. The task was taken from the website habsburger.net, launched by Austrian historians, which provides a large number of tasks and texts for history lessons. The teacher's choice was based on a specific principle of history didactics — to relate present political themes and the students' life-world to historical content (Bergmann, 2012) — in this case the ongoing election campaign for the second round of the Austrian presidential election. More-over, as the task aimed at questioning authoritarian power, the teacher/researcher considered it an appropriate document for this purpose. From a language-centered point of view, the multimodal task consisted of reading various types of texts written in academic language, including one original text segment from the beginning of the 20th century and explanations written in a style similar to regular text books in histo-ry class. Moreover, there was also one partial task that demanded Internet research. Therefore, the teacher/researcher assumed that it would be necessary for the stu-dents to deal with different text genres in academic language and to "translate" their impressions and findings from the texts into spoken language and vice versa.

The chosen task[8] consisted of five different parts with various objectives: First, the students should — with the help of the Internet — define and contextualise the notion of "lèse-majesté" and find out which punishment is imposed upon an offender. Second, they should compare portraits of the Austrian Emperor Franz Jo-seph I and the then[9] Austrian president Heinz Fischer in order to discuss who seems more reverent and, thus, to give a "translation" from visual impressions into spoken language. The third task contained an excerpt with the description of a "lèse-majes-té" and ended with the question: "Should people rise when they hear a national anthem?" In the fourth part, students should, with the help of the Internet, find out how the notions "Hump-Dump" and "Kurti" relate to the former Austrian presidents Kurt Waldheim and Thomas Klestil.[10] Finally, the last task leads to a test with the title "Culturally open? Gestures and facial expressions", where pupils had to link certain gestures and facial expressions to nations, states and/or continents in the

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[7] For further reading on strategy use with an emphasis on writing see Budde and Michalak (2017, pp. 26—27).

[8] http://www.habsburger.net/de/unterricht/module/eine-majestaetsbeleidigung [21/12/2016]

[9] At that time, the campaign for the presidential elections had just started. Heinz Fischer's man-date ended in July 2016.

[10] "Kurti" is the name of a song (album: Burli, 1987) in which the Austrian band Erste Allgemeine Verunsicherung criticises Kurt Waldheim i. a. for allegedly not being able to remember what he had done as a Wehrmacht officer during World War II. Kurt Waldheim intended to file charges against the band for defamation (in German: "Ehrenbeleidigung").
In 2000, the politician Hilmar Kabas from the right-wing Austrian Freedom Party (FPÖ) called president Thomas Klestil "Lump" (in English: "rascal"). After being criticised, he claimed to the APA (Austrian Press Agency) that he had not said "Lump" but "Hump" or "Dump", neither of which exists////has meaning in German.

world. The solution of the test showed that the same gestures and facial expressions are used in different countries around the world but differ in their meaning.

When the teacher explained the group-work task, she explicitly encouraged the students to use languages other than German, the officially approved classroom language in a history class (besides English at this school). Nevertheless, none of the students used other languages. Recording 2 (Milana and Manuel) contains some utterances in English that are popular in German youth language. Apart from that, Milana and Manuel shared Serbian as a common language, but did not use it during the recorded interaction.

3 Results

We identified two main strategies of language use in the data: mutual explanations of sequences in academic language and collaborative development of the text. Strategies of language use in this context are verbal and nonverbal actions to cope with problems in comprehension or in communication (Demme, 2010).

3.1 Mutual explanations for a better understanding of the task

Cummins (2008) sees collaborative learning as an important tool to help students improve their academic language skills, because talking about texts can help students to "internalize and more fully comprehend the academic language they find in their extensive reading of the text" (pp. 79—80). Indeed, our data provides various sequences in which students help each other by explaining specialised terminology or whole passages of texts they come across while solving the task together. Extract 1 shows an example of such a mutual explanation:

Extract 1 (recording 1):

1	Daniela:	Also die haben immer .. Welches Wort haben sie da jetzt gesagt, dass es ein Verbrechen war?	Well they always .. which word did they say, that it was a felony?
2	Marion:	Majestätsbeleidigung und dann es es entspricht heu- heute dem Hochverrat. Oder was meinst du?	Lèse-majesté and then it corresponds to treason to- today. Or what do you mean?
3	Daniela:	Nein also sie haben ja /ehm/ .. es war ja eine .. eine .. Beleidigung aber sie haben doch nicht Majetät- Maj- Majestätsbeleidigung gesagt.	No, they have /ehm/ .. it was an .. an insult but they didn't say lèse-majeté lèse-maj- lèse-majesté.
4	Marion:	Doch!	Sure!
5	Silvia:	Nein nein also es ist jetzt nicht so als Wort .. du wurdest beleidigt indem du gesagt hast Majestätsbeleidigung. Es war einfach, wenn du den verachtet hast, dass du ihn bloßgestellt hast, Hochverrat heute.	No no. It is not as a word .. you were insulted by saying lèse-majesté. It was just if you disdained someone, that you exposed him, treason today.
6	Daniela:	Ja.	Yes.

This example shows that the technical term lèse-majesté is not quite clear to Marion (lines 2 and 4), so the others try to explain it to her. However, it is not only the term that is unclear, but also the concept of lèse-majesté as a whole. This passage is a good example for how "linguistic and content knowledge […] have to be seen as a didactic entity" (Handt & Weis, 2015, p. 76) and that students need to understand the concepts behind technical terms in order to better internalise the terms themselves. To explain the concept of lèse-majesté to Marion, Silvia (line 5) applies the strategies of contextualisation ("It was just if you disdained someone, that you exposed him") and comparison with a contemporary concept ("treason today").

The explanations are not limited to the words and passages of the input text the students read in order to accomplish the task, but also cover the task instructions themselves:

Extract 2 (recording 1):

1 Silvia:	A l s o ….	S o ….
2 Marion:	/Eh/ .. ich sollt jetzt sagen was Majestätsbeleidigung heißt.	/Eh/ .. I should say now what lèse-majesté means.
3 Silvia:	Ja also wann /eh/	Yes, so when /eh/
4 Daniela:	Nicht heiß, sondern wann und wo und in welchem Zusammenhang es verwendet wurde.	Not means but when and where and in which context it was used.
5 Silvia:	Also wie ……	So how ……
6 Marion:	Na ja es bedeutet ……	Well it means ……
7 Silvia:	Also, ob es jetzt als Beleidigung genutzt wurde, also als Schimpfwort quasi oder was .. was ……	If it was used as an insult, that is as a swearword in a way or what .. what……
8 Daniela:	Oder wo verwendet man es also zum Beispiel bei ……	Or where it is used for example ……
9 Marion:	Gar nicht mehr … Also es bedeutet ((liest)) ist in einer Monarchie die vorsätzliche Beleidigung oder Tät-Tätlichkeit die gegen einen regierenden Monarchen verübt wird. Sie ist ein Verstoß gegen die konstitutionellen Monarchie verfassungsmäßig festgeschriebene Unverletzlichkeit des Inhabers der staatlichen Souveränität.	Not anymore at all … So it means ((reads)) is in a monarchy the wilful insult or ass- assault that is committed against a reigning monarch. It is a transgression against the inviolability of the holder of the state sovereignty that in constitutional monarchies is constitutionally codified.
10 Silvia:	Also Verachtung gegen den Monarchen.	So disdain of the monarch.
11 Daniela:	Ja.	Yes.

In this extract, Marion misunderstands the task instructions (line 2), as she thinks she needs to explain the term "lèse-majesté" instead of just researching information about its historical context. Only when Daniela (line 4) and Silvia (line 7) explain the task in their own words she understands that they need to find the definition online and starts reading the article about "lèse-majesté" on Wikipedia[11]. This leads

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[11] https://de.wikipedia.org/wiki/Majestätsbeleidigung [04/10/2017]

56 to the first step towards the solution of the task by Silvia, summarising the passage (expression 10) previously read aloud by Marion (expression 9) in her own words. To better understand the importance of these processes, Gallin's and Ruff's (2010) differentiation (based on Wagenschein, 1980) seems very useful: They distinguish between the *language of understanding* (Sprache des Verstehens), a language form that correlates with the linguistic resources available to the learner (e. g. colloquial language), and the *language of the understood* (Sprache des Verstandenen), which is explicit, decontextualised and complex — academic language. Velasco and García (2014) also point to the importance of the interaction between different registers, stating that "[a]dding and integrating new linguistic resources cannot be done without reference to those linguistic resources the child [or student] already has" (21). Extracts 2 and 3 analysed above are good examples for how students can help each other to bridge the gap between already-known and as-yet-unknown linguistic structures, that is between their colloquial language "of understanding" and their academic language "of the understood", respectively.

3.2 Collaborative development of the text

Beese and Roll (2015, p. 53) understand "writing as a thinking tool". When writing, students have to assess, arrange and relate their knowledge. This process — decelerated through the writing — can lead to a deepened reflection of the content and thus to its better understanding. In order to successfully complete a writing task, students need to be able to realise several aspects. Firstly, they have to identify the text type adequate to the task and/or expected by the teacher. Secondly, they need to recall the corresponding text model, and, thirdly, they have to write a linguistically and structurally adequate text (Bachmann, 2014).

Feilke (2014) states that the quality of a text is not only based on its individual creative and linguistic arrangement but depends very much on the knowledge of text types, text structures and writing strategies. The four examples presented below were recorded during a collaborative writing task and illustrate writing strategies. They seem to support Storch's (2005, p. 168) findings that collaborative writing results in texts that show "greater grammatical accuracy and linguistic complexity" and are "more succinct".

In the recordings, several strategies for developing a linguistically and structurally adequate text can be identified. On the structural level, one such strategy is orientation along the structure and characteristics of another text:

Extract 3 (recording 1):

| 1 | Marion: | Willst du dann auch ein Zitat reinschreiben? Weil da [im Inputtext] ist auch ein Zitat. | Do you want to include a quotation too? Because there [in the input text] is a quotation too. |
| 2 | Silvia: | Ja, warum nicht. | Yes, why not. |

In extract 3, Marion sees the input text, an article from Wikipedia, as a text model for their own text about "lèse-majesté" and suggests adopting the element of quotations for their own text, a stylistic element one could see as characteristic of academic texts.

Another strategy on the structural level is the collective planning and monitoring of the writing process as shown in extract 4:

Extract 4 (recording 1):

1 Silvia:	So wann und wo in welchem Zusammenhang .. ja haben wir einmal …. (liest) Was ist eine Majestätsbeleidigung und welche Folgen hatte sie? .. Das haben wir auch.	So when and where and in which context .. yes we have that …. ((reads)) What is lèse-majesté and which consequences did it have? .. That we have too.
2 Daniela:	Nein warte. Wann hast du gesagt war das Zuchthaus?	No wait. When did you say was the jail?
3 Marion:	/ehm/ .. achtzehnhundert einundsiebzig	/ehm/ .. eighteen hundred and seventy one
4 Daniela:	Okay und wer hat das alles geschrieben? Das sollten wir auch dazu schreiben.	Okay and who wrote all this? That we should add, too.
5 Marion:	Was meinst du?	What do you mean?
6 Daniela:	Naja wer diesen Text.	Well who this text.
7 Silvia:	Ach so wo wir unsere Quellen jetzt her haben.	Oh yes where we took our sources from.
8 Daniela:	Ja genau.	Yes exactly.
9 Marion:	Wikipedia.	Wikipedia.
10 Daniela:	Und wir müssen unsere Quellen dazu schreiben.	And we have to add our sources.

In extract 4, Silvia starts checking whether their text includes all required information (line 1). Initiated by Silvia, Daniela starts thinking about what might still be missing as well and consequently wants to add one piece of historic information (line 2) and reminds the others that the task instructions explicitly require them to indicate their sources (line 4).

An important writing strategy on the linguistic level can be observed in extract 5:

Extract 5 (recording 1):

1 Silvia:	Verbrechen der Majestätsbeleidigung wurde auch gegenüber Gott verwendet.	The felony of lèse-majesté was also used in relation to God.
2 Marion:	Also es ist dasselbe, es wurde gleichgesetzt.	So it is the same, it was equated.

In this case, Silvia summarises one passage of the input text in her own words (line 1) and Marion 'translates' the colloquial phrase "so it is the same" into "it was equated" (line 2), a phrase more suitable for a text in academic contexts.

A similar process can be observed in extract 6, in which Silvia and Daniela start comparing a portrait of Emperor Franz Josef I to a portrait of the Austrian president Heinz Fischer:

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Extract 6 (recording 1):

| 1 | Silvia: | Also Ähnlichkeiten .. es [die Fotos] sind Oberkörper .. also .. Porträts. | So similarities .. they [the pictures] are upper parts of the body .. so .. portraits. |
| 2 | Daniela: | Ja. | Yes. |

Silvia (line 1) notices that both pictures show upper parts of the body and defines these kinds of visual representations as portraits, a content word we would argue attributable to academic language rather than to colloquial language. This process of increasing specification is essential for the production of academic texts (Brandt & Gogolin, 2016, pp. 28—29). We would see extract 5 and extract 6 as good examples for mutual explanation and collaborative development of the text moving back and forth along the continuum between Wagenschein's (1980) colloquial *language of understanding* (Sprache des Verstehens) and the academic *language of the understood* (Sprache des Verstandenen).

4 Discussion

The scope of this study are students' communicative practices in a group-work task, focusing on their strategies of language use and negotiation of meaning in writing school-specific texts, specifically the interaction between students' colloquial and academic language within their linguistic repertoire. The examination of selected sequences recorded during a history lesson in a College for Vocational Education (upper secondary level; ISCS 10; Berufsbildende Höhere Schule) in Vienna shows that language use in this specific group-work situation is neither academic nor colloquial — the students regularly change their way of speaking and in doing so move along the continuum of academic and colloquial language. Frequently used strategies to gain a better understanding of the sometimes linguistically challenging historical input texts are mutual explanations of technical terms and the use of colloquial language as well as contextualisation to gain a better understanding of concepts in general. The students also apply similar strategies in their collaborative writing process, for example when they "translate" colloquial phrases into phrases more suitable for a text in academic contexts. Other strategies they apply are the collective planning and monitoring of the writing process as well as orientation along the structures of other texts. Both strategies support Feilke's (2014) and Bachmann's (2014) calls for a stronger focus on text models and writing procedures (*Schreibprozeduren* in German) in education, meaning that text conventions need to be made transparent and explicitly practised in school.

These results call for a greater recognition of the role of colloquial language in the acquisition of academic language and the understanding of topic-specific contents. Thus, if teachers were more aware of the different roles colloquial and academic language play in the acquisition and the organisation of knowledge, they could facilitate the understanding and the acquisition of academic language by actively calling on students' movement back and forth the continuum between col-

loquial and academic language for creating meaning. The concepts of the *language of understanding* (Sprache des Verstehens) and the *language of the understood* (Sprache des Verstandenen) as well as their interdependence have proven very useful in this context (Gallin & Ruf, 2010).

However, our results should be regarded as pieces of a bigger puzzle. Further analysis of interactions in collaborative processes is needed in order to gain a better understanding of the intertwined relations between academic language and other linguistic resources combined in a repertoire. Gumperz (1964, p. 138) stated that the repertoire, conceptualised as an arsenal, "[…] provides the weapons of everyday communication [and that] speakers choose among this arsenal in accordance with the meaning they wish to convey". For the school context, our results indicate that students might also choose in accordance with the cognitive process they want to achieve.

Finally, conceptualising academic language as a dimension of a large and dynamic linguistic repertoire requires discussing the implementation of new research methods. When highlighting the subjective and ideological dimensions of the linguistic repertoire (see section 2.2.), e.g. (auto)biographical methods may need to be implemented in the research process. Such an approach would also allow us to react to criticism that especially register-based research that seeks to systematically describe academic language tends to ignore socio-symbolic functions and the link between language use and social positioning (Heller & Morek, 2015, p. 179). In conclusion, it should be emphasised that this is merely one example of how theoretical concepts from applied linguistics and pedagogy can be combined in order to better understand communicative practices in learning contexts.

Acknowledgements

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Appendix

Transcription conventions (Hoffmann-Riem, 1984)

Sign	Signification
..	brief pause
...	medium-length pause
....	longer pause
......	Omission
/eh/ /ehm/	pause in order to plan the next speech act
((event))	non-verbal events ((shows an image))
((laughing)) ((confused))	perceptible accompanying phenomena (marked before verbal utterance), speaker noises
sure	noticeable stressing, also loudness
s u r e	lengthening
()	unintelligible speech
(so loud?)	hardly intelligible

The Development of Multilingual EFL Teachers' Professional Vision and Practical Teaching Capabilities in Video-Based Surroundings — Do Language Learning Biographies Have an Impact?

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Abstract: The present paper draws on research findings about ESL and EFL teachers' language learning biographies. More precisely, the paper draws on major insights from prior research that investigated the effects teachers' languages, other than the target language, English, have on their professional identities and development. The question is answered if existing research findings hold in German video-based training contexts that aim to develop pre-service teachers' multilingual-sensitive Professional Vision and practical teaching capabilities. Questionnaire-based data (n = 39) indicates that participants rely on their language (learning) biographies when planning and reflecting on multilingual-sensitive EFL teaching videos, albeit with varying degrees. Further, participants tend to employ specific languages for particular purposes.

Keywords: Professional Vision, language (learning) biographies, multilingual-sensitivity

Throughout the past decade actors involved in foreign language teacher education have addressed the challenges and uncertainties that have arisen as a result of an increasing heterogeneity in schools (cf., e.g. Banks et al., 2005; Lightbown & Spada, 2013). In this context, pupils' multilingualism has been recognized as a constitutive part of heterogeneity (Trautmann, 2010; Trautmann & Wischer, 2011; Ziegler, 2013). Pupils' multilingualism has been considered as both a prerequisite for and goal of foreign language teaching (Hufeisen & Neuner, 2005), i.e. teachers are to notice, value and use the languages their pupils bring to class to enrich and foster learning a foreign or second language and to ensure that pupils develop an awareness of multilingualism resulting in the acquisition of various languages throughout lifelong learning (Europarat, 2001; European Commission, 2015). A solid amount of research has investigated multilingualism and its implications for English language teaching and learning, ranging from conceptually and theoretically-oriented monographs (Cenoz & Gorter, 2014; Conteh & Meier, 2014; Jessner, 2006; May, 2014) to rather practical teacher guidelines of how to deal with multilingual learning groups (Abney & Krulatz, 2015; Milambiling, 2011; Schecter & Cummins, 2003).

Undoubtedly, this research is of indispensable value to equip pre- and in-service EFL and ESL teachers with both theoretical and practical insights into pupils' multilingualism and ways it may be employed to enrich teaching and learning processes. At the same time, however, research that explicitly focuses on *teachers'* multilin-

gualism as a phenomenon worth considering in teacher education is relatively scarce compared to the efforts undertaken to understand and use *pupils'* multilingualism in foreign language learning settings. The present article aims to address this gap. German pre-service EFL teachers' multilingualism is put into focus by examining the role their languages, other than the target language English, might play when planning and reflecting on EFL lessons that have been designed in such a way as to adopt to a multilingual learning group. A detailed account of the university classes participants attended is offered, both of which were conducted at Goethe University Frankfurt/Main and were classes aimed to develop students' Professional Vision and practical teaching capabilities. Hereafter, the insights gained through questionnaire implementation and analyses are portrayed and embedded within existing research findings.

1 Video-based development of teachers' Professional Vision (PV)

1.1 What is PV?

In the context of teacher education or teachers' professional development, the notion of Professional Vision (Goodwin, 1994) has been frequently addressed throughout the past decade (Sherin, 2004, 2007; Sherin & van Es, 2002; Sherin & Han, 2004). Professional Vision (henceforth, PV) is generally exemplified as "the ability to observe what is happening in a classroom" (Sherin, 2007; cf. also Borko et al., 2008). The development of PV demands teachers' active cognitive involvement in two processes, namely "selective attention" and "knowledge-based reasoning" (Sherin & van Es, 2009; van Es & Sherin, 2008). Whereas the former is a prerequisite for teachers capacity to "notice"[1] classroom events "relevant to learning" (Seidel et al., 2011; Sherin, 2007, respectively), the latter aims at an in-depth examination of these classroom events on various levels:

> Once they have noticed classroom events, teachers begin to reason about those events based on their professional knowledge and understanding of teaching and learning. Three aspects of this reasoning process have been distinguished [...]: first, the ability to describe precisely what has been noticed; second, higher-order processes in which observed classroom observations are linked to prior knowledge and understanding of teaching and learning; third, knowledge-based reasoning processes in which the link between the event and the theory is used to evaluate and predict what might happen as a result of the observed situation. (Seidel et al., 2011)

The analytic steps involved in PV have frequently been associated with a teacher's "reflective capability" (Reed et al., 2002), which, in turn, goes back to

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[1] Alternative terms such as "call out" (Frederiksen et al., 1998), or "stopping point" (Jacobs & Morita, 2002) have been suggested to describe "the process by which teachers identify what is relevant in a classroom situation" (Seidel et al., 2011).

Schön's concept of the "reflective practitioner" and his notion of "reflection-on-action" (Schön, 1983; Zeichner & Liston, 1987). While "reflection-in-action", just like "professional vision in-action" (Sherin et al., 2008), occurs in the process of teaching, "reflection-on-action" and "reflection-for-action" comprise teachers' reflective activities when viewing their teaching and using their insights for the planning of their teaching, respectively (Farrell, 1998, p. 13).

Needless to say, attempts to enhance a multi-layered and highly complex competence such as teachers' PV demand carefully designed professional development programs. Numerous of such programs rely on the implementation of teaching videos as a tool which lends itself well to the achievement of this aim, as shown in the next section.

1.2 Video-based development of PV

The positive effects the analyses of teaching videos can have on teachers' professional development in a general sense shall not be elaborated in detail here since prior research has done so extensively (Brophy, 2004; Borko et al., 2008; Baecher et al., 2013; Kleinknecht et al., 2014; Rosaen et al., 2008; Zhang et al., 2011). It is suffice to say that teaching videos help to "capture the richness and complexity of elusive classroom practice" (Zhang et al., 2011, p. 454) and enable teachers "to enter the world of the classroom without having to be in the position of teaching in-the-moment" (Sherin, 2004, p. 13). In other words, "video affords the luxury of time" (Sherin, 2004, p. 13), thereby putting teachers in the position to be engaged in "specific and detailed noticing" (Rosaen et al., 2008, p. 357). Besides these rather general insights, research has also uncovered the role video analyses may play in terms of propelling teachers' PV as defined in the previous passage. The first to mention amongst those who explicitly addressed video-based PV development are Sherin and colleagues (Sherin & van Es, 2009; Sherin & Han, 2004) who emphasize that through the use of videos, teachers "learned to attend to particular kinds of events that happen in a classroom and [...] to reason about these events in particular ways" (Sherin & Han, 2004, p. 179). The authors further "suggest that it can be productive to consider the learning that takes place as teachers interact around video as helping to change teachers' professional vision" (Sherin & van Es, 2009, p. 33). This view is supported by researchers who examined the impact different kinds of teaching videos have on the development of teachers' PV (Hellermann et al., 2015; Kleinknecht & Schneider, 2013; Seidel et al., 2011).

In sum, researchers generally agree that teaching videos can serve as appropriate tools to foster teachers' PV as a constitutive part of their professional development. At this point, one might rightfully ask whether and to what extent the development of PV translates into teachers' practical teaching capabilities; a question addressed in the following section.

1.3 PV and teaching practices

Support for the assumption that an increase in PV has a positive impact on practical teaching is provided by various researchers (cf. e.g. Reed, Davis, & Nyabanyaba, 2002), although research on this topic is still relatively scarce. Kleinknecht and Schneider (2013) state "it is likely that the ability to analyze situations is a prerequisite for the ability to act adaptively in these situations" (Kleinknecht & Schneider, 2013, p. 14). This view is underlined by researchers who put more explicit weight on the role teachers' analytic capabilities have on their teaching practices. For instance, Krammer and Hugener (2014) argue that "the ability to analyze teaching situations is seen as a predominant prerequisite for successful teaching" (Krammer & Hugener, 2014, p. 25; trans.) and, in addition, that "findings about the interrelation of teaching-related analytic competencies and effective teaching confirm the importance of this ability" (Krammer & Hugener, 2014, p. 25; trans.).

2 Teachers' language (learning) biographies (LLBs)

The majority of studies investigating the impact English teachers' language biographies have on their profession were conducted in *ESL* contexts (Amin, 2001; Ellis, 2004; Garvey & Murray, 2004; Moloney & Giles, 2015; Safford & Kelly, 2010). Hence, what all these studies have in common is the fact that they investigated teachers' language backgrounds in English teaching contexts which share English as the official language such as in Australia (Ellis, 2004; Garvey & Murray, 2004; Moloney & Giles, 2015) or Great Britain (Safford & Kelly, 2010). Teachers in educational contexts like this are either Native Speakers (NS) of the target language English or they have learned English as a second or foreign language themselves. The latter are commonly referred to as "Non-Native-Speaking (NNS)" language professionals or "Non-Native English Speaking Teachers (NEST)" (Garvey & Murray, 2004; Safford & Kelly, 2010). Although many researchers draw on this basic distinction, some offer a more complex classification of teachers' language backgrounds. In answering the question "whether language learning experience is a contributor to ESL teachers' professional knowledge", Ellis (2004) provides a threefold distinction between "non-native teachers of English who are bi-/multilingual by definition", "native-speaker teachers who are bi-/multilingual" and "native-speaker teachers who are monolingual" (Ellis, 2004, p. 93). To a certain extent, Ellis' findings diminish the dominance of the NS — NNS distinction:

> In terms of linguistic knowledge relevant to ESL teaching, the multilingual teachers, both native and non-native speakers of English, appeared to have more in common with each other than with the monolingual teachers. Experience of language learning, then, seemed to be a more important factor here than did native/non-native speaker status. (Ellis, 2004, p. 96)

Bi- or multilingual teachers' advantages rooted in personal language learning experiences and not only included knowledge of "their own preferred learning styles and strategies" which, in turn, helped them to understand "how students differ in their approaches to learning" (Ellis, 2004, p. 98) and to adopt their teaching to these differing needs, they also empowered teachers to compare languages, thereby showing pupils how languages are related on phonological, syntactic, lexical or pragmatic levels (cf. Ellis, 2004). Further, immigrant bi- or multilingual teachers turned out to be flexible language users for they frequently move between their home languages and English, a phenomenon "manifested […] in their everyday experience of code switching, sometimes according to relationships, [or] to domains of use, as between home and work, and sometimes according to topic" (Ellis, 2004, p. 97). Teachers with the additional experience of having learned English as a foreign or second language appeared to perceive themselves as (successful) learners, and, as such, could function as a "model" and build "solidarity" with their pupils, whom they may teach more "credibly" than other teachers, especially since they have "experienced the same phenomen[a] in the same language as the students are struggling with" (Ellis, 2004, p. 98). Finally, Ellis carefully emphasizes that different kinds of language learning experiences may form a rich basis bi- or multilingual teachers can draw upon, depending on the contexts they have learned their languages in:

> If we consider the distinction which Wallace (1991) makes between 'received knowledge' from formal education and 'experiential knowledge' from one's own experience, […] it seems reasonable to conjecture that those who have the experience of becoming multilingual and multicultural will have a richer base of knowledge, beliefs and insights on which to reflect and to inform their practice than those who do not. (Ellis, 2004, p. 103)

The findings obtained by Ellis' study are largely in line with the one conducted by Garvey and Murray (2004) within which the multilingual teachers involved were classified as "NESTs", i.e. they had all learned English in formal contexts. Drawing on Ellis (2002) and Lortie (1975), the authors also underline the impact this (formal) language learning experience known as "apprenticeship of observation" (Garvey & Murray, 2004) can have on teachers' own practice. Doing so, they go a step further than Ellis by showing that teachers may either adopt or renounce the teaching approaches and strategies they witnessed as learners of English (cf. Garvey & Murray, 2004). In the former case, teachers "show empathy with students based on their own experience of learning English" (Garvey & Murray, 2004, p. 10), a factor which also manifests itself in teachers' ability to "foresee" and "predict" pupils' potential learning difficulties clustering around phonological and lexical language features (Garvey & Murray, 2004, p. 10). Likewise, teachers' empathy with students is stressed by Safford and Kelly (2010) who argue, "multilingual student teachers possess metalinguistic awareness about their pupils' learning needs" (Safford & Kelly, 2010, p. 407). They illustrate this with an example of one of the participating teachers' comments: "I can see things from [the pupils'] points of view, what they

68   might be thinking in their other languages. It's empathetic, really. Sometimes when I'm reading their work I can tell how they're thinking, because I've made the same mistakes" (Safford & Kelly, 2010, p. 407). The authors suggest the expression "mirror participants" equipped with "insider knowledge" and a "subtle understanding" of their pupils to describe multilingual teachers who are, however, prevented from using their "linguistic and cultural capital" due to monolingual teaching and learning surroundings (Safford & Kelly, 2010, p. 401, 408). Referring to Clyne (2008), Moloney and Giles (2015) strengthen this criticism arguing that a "monolingual mindset may continue to be an 'impediment to the development of plurilingual potential'" (Moloney and Giles, 2015, p. 125), i.e. in largely ignoring multilingual teachers' linguistic and cultural resources teacher education sites such as universities and schools prevent these teachers from unfolding their "integrated professional identit[ies]" which cover "empathy" with language learners, "metalinguistic abilit[ies]" and "model" functions:

> Findings illustrate that plurilingual PSTs[2] move with flexibility across languages and cultures, crossing boundaries between their homes, communities and networks. They are comfortable with difference, and use metalinguistic skills to communicate across difference. They are willing [...] to have the chance to speak to students or parents in their language [...]. They know they can contribute to student wellbeing and success through empathy [...], and by playing a positive role in supporting student learning. (Moloney & Giles, 2015, p. 135)

As mentioned before, the studies discussed so far were conducted in *ESL* contexts. A noteworthy exception which does not draw on the NS-NNS distinction is provided by Otwinowska (2014) who investigated the level of Polish *EFL* teachers' "plurilingual awareness" (Otwinowska, 2014, p. 97) in relation to a number of factors, amongst them the number of languages teachers have at their command. According to the author, "plurilingual awareness" goes beyond "traditional training of language teachers" (Otwinowska, 2014, p. 97) in that it comprises

1. cross-linguistic and metalinguistic knowledge;
2. knowledge about adopting a plurilingual approach in the classroom;
3. psycholinguistic knowledge of individual learner differences that facilitate learning. (Otwinowska, 2014, p. 101)

Further, "plurilingual awareness" is defined as a prerequisite for teachers' ability to implement plurilingual-sensitive EFL teaching and learning with the aim to further develop EFL learners' "individual multilingualism" by taking "advantage of [pupils'] previous learning experiences and the knowledge of languages they already possess" (Otwinowska, 2014, p. 100f.). All participating teachers were native speakers of Polish. Hence, teachers were "bilingual" at any rate, or "multilingual" if they knew languages in addition to Polish and English, albeit at varying levels of competence.

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2   Pre-service teachers

Whereas the hypothesis that the mere number of languages at teachers' disposal determines their level of "plurilingual awareness" per se could not be confirmed, it was shown that multilingual teachers obtain a higher level of "plurilingual awareness" than bilingual ones if their language competencies in the languages known were at least intermediate (cf. Otwinowska, 2014).

3 Teachers' LLBs in multilingual-sensitive (MS) development seminars

3.1 Outline and objectives of the courses

The previous sections have addressed two fields, namely the development of teachers' PV via teaching video analyses and the potential advantages multilingual EFL teachers' have over monolingual ones due to their rich language (learning) biographies, which seem rather unconnected at first glance. The following sections combine these two fields in such a way as to investigate whether (and if, to what extent) German EFL pre-service teachers' language (learning) biographies may have an impact on the development of their PV and practical teaching capabilities in a video-based learning context. Throughout the winter term of 2015/16 two seminars addressing the development of EFL pre-service teachers' PV were held at Goethe University Frankfurt/Main. Both seminars ran for 13 weeks with weekly sessions of 90 minutes. The primary aim was to develop pre-service teachers' Professional Vision and their practical teaching competencies in heterogeneous EFL classes. To achieve this aim, students were introduced to the concept of multilingualism as a constitutive part of EFL learners' heterogeneity, as well as to basic assumptions and approaches put forward by multilingual-sensitive teaching pedagogy/didactics and third language leasing (e.g. Cummins, 2005; Jessner, 2006; Hufeisen & Neuner, 2005). Students were to design mini lessons (micro-teachings) of approximately 20 minutes for an imaginary[3] EFL class in groups of four to five people. The challenge here was to plan 'lessons' which take "pupils'" diverse linguistic backgrounds into account, i.e. to include the languages they have at their command in such a way as to facilitate EFL teaching and learning. The mini lessons were held and video-recorded during the seminars and the students participated by acting as "teachers" and "pupils". To make the heterogeneity of the imaginary class more concrete, role cards were designed by the instructor, each of which exemplified a "pupil's" language background, learning difficulties and relation to his or her peers. The role cards remained the same throughout every seminar. An example may serve to illustrate this point:

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[3]   Unfortunately, it was not possible for participants to implement their mini lessons in authentic classrooms at this point in time.

Table 1 Micro-teaching role card

Role card "Ahmed"
- L1: Arabic (average language skills)
- L2s: German (writing and speaking problems), English (pronounces words as written, often omits the verb "to be" and the auxiliary "do" → *What she eating/*Where she is?, problems understanding new texts and remembering new vocabulary
- well-integrated in class, eager to learn, aware of his learning problems → frequently talks to his neighbour peers in a mixture of German and Arabic to negotiate meaning

The participants who acted as "pupils" played their roles according to the role cards. After each session, the recorded mini lessons were provided to the participants online. As a preparatory task for the subsequent session, they were asked to reflect upon the mini lessons, paying attention to whether or not learning goals were achieved, and whether or not as many "pupils" as possible were actively involved through heterogeneous-sensitive teaching. Each mini lesson was then re-examined and reflected upon again in the next session. Hence, participants' PV (via teaching video analyses) and their practical teaching competencies (through planning and implementing mini lessons) were to be fostered in successive circles of video production and video reflection.

3.2 Participants

A total of 54 students participated in the courses (11 male, 43 female), some of whom had already collected EFL teaching experience as substitute teachers in local schools. All participants aimed at becoming EFL teachers either in primary or secondary schools. Whereas some had only recently begun their studies, others were more ahead. 39 students chose to take part in the study the present article is based upon. Figure 2 provides an overview of these students' language (learning) biographies in terms of the languages represented in the MS development seminars.

As can be seen, 20 students share German as their first language[4], followed by 8 students who have additional first languages besides German, including Turkish, Spanish, Italian, Vietnamese, and Urdu. One student stated to have three first languages, namely German, Turkish, and Karacay. Ten students reported to have first languages other than German, amongst them Turkish, Farsi, Urdu, Polish, Twi, and Russian. These students had learned German in early childhood during their time in kindergarten and continued doing so in school. Only one student said she had started German later in school. All students had learned at least two foreign languages (FL) in a formal school context. Unsurprisingly, English was the first FL learned by the

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[4] Due to the sometimes unclear and contradictory associations evoked by terms such as "mother tongue" or "native tongue" (cf. König, 2016), the term "first language" is preferred here to refer to the first language (or languages) acquired in early childhood/during infancy. The term "first foreign language" (FL) is used to describe the first language consciously learned by the child (usually in a formal school context), a language which is not the official one in the respective country.

Table 2 Participant language (learning) biographies (classification of languages)

	L1(s)	1st FL (school)	2nd FL (school)	3rd FL (school)	4th FL (school)	Additional languages
German	20					
German +1	8					
German +2	1					
Other than German	10					
English		35	4			
Spanish		3		10	2	4
German		2	1			
French			30	3		
Latin			3	3		
Hindi			1			
Italian				1		3
Sanskrit				1		
Arabic						2
Greek						1
Polish						1
Dutch						1
Punjabi						1
Portuguese						1
total	39	39	39	18	2	14

vast majority, followed by Spanish and German. As for the latter, students indicated that they had begun learning German in kindergarten and continued doing so in primary and secondary school. Only very few students had started learning English as a second FL. Most students took French as a second FL in their educational career, followed by languages such as Latin and, in one case, Hindi.

A total of 14 students reported to have acquired additional languages as young adults rather informally, i.e. due to personal relationships or their cultural background. Students' competencies in these languages ranged from being able to take part in everyday conversations to being capable of writing and reading texts in the specific language.

In terms of official documents and existing research, all participants qualify as being "multilingual" since they are in command of at least two modern languages in addition to their first one (Europäische Kommission, 1996). Put differently, they can "function in two or more languages in conversational interaction" (Wei, 2013, p. 33), albeit with varying degrees of competence. However, partial knowledge of languages does not run counter to "multilingualism", for it has become common ground that it does not require individuals to possess native-like competencies in all

72 their languages (Europarat, 2001). In fact, cases like this — also referred to as "maximum forms of multilingualism" — are rather the exception than the norm (Bausch, 2016, p. 287; trans.). What is more, students indicated that their competencies do not only vary across languages (no matter whether they had been learned in formal school contexts or acquired more informally), but also throughout time, i.e. they did not consider their language competencies as stable (apart from their L1s and English). Hence, they may be classified as "dominant or asymmetric" multilinguals (Bausch, 2016, p. 287; trans.).

3.3 Questions and methodology

Both the insights provided by current research (cf. sections 1 and 2) as well as the rich and diverse language backgrounds represented in the MS seminars brought up the following questions:

1. Do prospective teachers' individual language (learning) biographies have an impact on the development of their PV? What is the nature of this impact?
2. Do prospective teachers' individual language (learning) biographies have an impact on the development of their practical teaching capabilities? What is the nature of this impact?

In methodological terms, self-report questionnaires including two semi-closed questions, two Likert scales and four more open-ended items[5] (see Dörnyei, 2007) were designed to answer the above questions for they lend themselves well to gain in-depth insights into students' inner perspectives which would otherwise remain largely unobservable (Riemer, 2016). 39 questionnaires were handed in for analysis. Owing to the definition of Professional Vision (section 1.1), items served as indicators of either Professional Vision or practical teaching capabilities. In any case, respondents had to exemplify and explain their answers or choices. Each written explanation was dealt with as a "unit of analysis" (Kuckartz, 2012, p. 30) for inductive category development.[6] Students' written explanations were summarised and paraphrased, thereby arriving at text-based, abstract categories (Mayring, 2010; cf. section 5.1).

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[5] The entire questionnaire was comprised of a total of 10 overarching questions (which were subdivided into several more specific questions) on students' language learning biographies and instruments used throughout the seminars. The open-ended questions asked the participants to write full texts, e.g. "Please exemplify and explain your choice made in the Likert item". In the semi-closed questions the students had to tick one of two options. As for the Likert Scales and the closed items, percentages of the options chosen by the participants were calculated.

[6] Inductive category development was preferred to a deductive approach due to the explorative nature of the investigation (cf. Kuckartz, 2012).

4 The development of Professional Vision (PV) in multilingual-sensitive (MS) classes

4.1 Language (learning) biographies and video reflection

The questionnaire item that addresses the impact LLBs may have on students' reflective competencies/their PV reads as follows:

Have the languages at your disposal played a role when reflecting on the micro-teaching videos?

Out of 29 students who responded to this item, 16 (55.17%) reported that their languages played a role during video analyses, followed by 13 (44.83%) students who denied this. Unfortunately, the latter did not put forward any reasons for their choice. The following two comments illustrate how students' general language repertoire assisted them during video reflection[7]:

(1) *Since I do not speak many languages, they only assisted my video reflections in limited ways. Despite this, they helped me to make sense of pupils' comments, questions and intentions, and they further enabled me to uncover possible reasons for disturbance and to find ways to address these issues.*
(2) *My languages frequently helped me to trace back pupils' mistakes and to show pupils ways of how to avoid them in the future.*

Both comments exemplify ways in which languages at students' command have assisted video analyses, namely in offering them a deeper understanding of pupils' contributions in class (1) and in putting them in the position to reconstruct pupils' mistakes (2). Neither comment refers to specific languages employed, but the first sentence of comment (1) evokes the assumption that the number of background languages might be of importance in terms of PV development.

As for the question regarding which specific languages were involved in video reflection, students' responses revealed that Romance languages seemed to play a prominent role. More specifically, their explicit knowledge about and implicit knowledge of languages such as French or Spanish enabled them to notice and reflect on multilingual-sensitive teaching and learning situations in the micro-teaching videos:

(3) *The connection between the target language, English, and Spanish helped me to deepen my multilingual awareness.*
(4) *I know Spanish grammar, so I could easily respond to some of the pupils' contributions. I tried to find similarities between languages to ease the teaching and learning of English.*

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7   Each comment in this article was provided by a different participant.

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(5) *My language feeling of Romance languages supported video reflection. It helped me to derive the meaning of words unknown to pupils and explain their meaning.*

(6) *Since I know the grammar of French and Italian, I could foresee which terms and explanations could have helped pupils in a specific situation.*

(7) *Without my knowledge of Spanish and French it would not have been possible for me to make intelligent guesses about what pupils might think or are about to say in many cases.*

As can be seen, students drew on both, their grammatical (4) and lexical (5) language knowledge during video analyses, and their language backgrounds helped them to anticipate and make sense of pupils' contributions and difficulties.

According to some students, their first language(s) served specific purposes during video reflection as well. Unsurprisingly, a number of these students relied on their "*intuitive language feeling*" rather than explicit structural knowledge in this context, as exemplified in quote (8). However, more explicit knowledge also proved to enhance students' multilingual reflective competencies as illuminated in quotes (9—10):

(8) *Due to my intuitive feeling for languages I could defend and justify my performance as a teacher when it was analysed and reflected.*

(9) *My mother tongue [Farsi] assisted me in understanding Ahmed's and Manisha's[8] intentions, especially when they lacked English expressions to make meaning because Farsi, Urdu and Arabic share certain similarities.*

(10) *My knowledge of grammatical and lexical phenomena further enabled me to help pupils such as Ahmed, for instance when he tried to express something in Arabic. Arabic and Turkish share related words, so I could decode lexical items used by Ahmed and translate them into English. This also worked for Marino's[9] Spanish contributions.*

(11) *I know exactly what it is like to speak a language at home which is different from the surrounding, official language. Besides offering pupils language comparisons, my languages really put me in the position to understand these pupils' feelings.*

Numerous statements comparable to comment (11) have been made, including rather emotional aspects students encountered when they had their first language other than German in mind during video reflection. This leads to the second indicator of students' PV development, namely their ability to put themselves into pupils' position, i.e. to empathize with pupils.

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[8] Ahmed and Manisha are imaginary pupils. As exemplified on the role cards, their first languages are Arabic and Urdu/Hindi/German, respectively.

[9] Another imaginary pupil whose first language is Spanish.

4.2 Language (Learning) Biographies and Empathy

The accompanying questionnaire item reads as follows:

My languages helped me to empathize with "pupils".

A total of 39 students responded to the item, 17 (43.59%) of whom stated that their languages helped them "to a medium extent", followed by 9 (23.08%) students who chose the option "to a high extent", and three participants who opted for "to a very high extent". As for the students who did not agree with the item, 8 (20.51%) pointed out that their languages helped them "to a rather low extent" and two students (5.13%) even claimed that their languages "did not help them at all".

Students' explanations of which languages enabled them to put themselves into the position of "pupils'" roles uncover that first languages as well as languages learned in and out of formal school contexts served this purpose alike. Again, utilitarian comments were emphasized, i.e. students used their languages to match with "pupils'" role cards, as the following two statements show:

(1) *Spanish helped me to deal with Marino[10]. Without Spanish, this would not have been possible.*
(2) *German helped me to understand German pupils' syntactic mistakes. Negative transfer resulted in such mistakes.*

Interestingly, students ascribed their lack of empathy with "pupils" to the fact that they only speak "*a few*" languages, and that these languages were not part of any role card:

(3) *I only speak English, German and a little Spanish. This did not help me to put myself into Turkish or Arabic pupils.*

The mere number of languages spoken by students seemed to play a crucial role in terms of the ability to empathize with "pupils" beyond specific languages, or cross-linguistically, as well:

(4) *Since I know four languages, and speak three of them consciously, it was very easy from the beginning to empathize with pupils and their problems. While planning the micro-teaching, I did not focus on one language or the other, but on the general fact that I have to teach a multilingual class.*

Students who primarily drew on the languages they had learned in school stressed that these languages enabled them to understand "pupils'" language learning difficulties. In this context, French was amongst the languages most frequently mentioned:

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10 Cf. footnote 7.

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(5) *My French is much worse than my English, however, this assisted me in seeing how complex learning English is for some pupils, because I thought that for some students, learning English is as challenging as learning French was for me.*

Besides French, some students referred to the target language English and their first language German in the attempt to "*feel what pupils feel when sitting in the classroom*":

(6) *Just like the pupils, I am still a learner of English myself, since it is not my first language. I also teach German to refugees from Syria, and I know that these people have an entirely different language system. Hence, you cannot expect them to understand metalinguistic grammatical terms, you have to find other ways to explain things.*

Whereas students' first language German turned out to be an often used tool to empathize with "pupils'" language learning challenges, the absence of German as a first language resulted in slightly different perspectives. In other words, students with first languages other than German reported that they could imagine "*what it feels like not to speak the surrounding language fluently*" and "*how difficult it is for these pupils to raise their hands and participate in class, even if the target language is English and the teacher uses German from time to time to clarify task requirements and the like*". Some students further argued that they themselves had experienced "being different" first hand:

(7) *My parents only spoke Vietnamese. When I was in school, they couldn't help me and it was very difficult for me to follow what was going on in class because I did not understand all the instructions.*

4.3 Précis

Given the above considerations, question 1 (section 3.3) may be cautiously answered as follows: A slight majority of students indicated that their languages assisted them in video reflection, which served as an indicator of PV development. The same is true for the second indicator of PV. Here, a more solid majority agreed with the assumption that background languages serve to put students in the position to empathize with pupils. Further, the students' responses suggest that the more languages they have at their command, the richer the language basis they draw upon to develop their PV.

5 The development of teaching practices in MS classes

5.1 Language (learning) biographies and multilingual-sensitive teaching

Before students were asked about the impact their own language repertoires might have had on the concrete planning of their microteaching sessions, i.e. their practical competencies, they were to reflect on this issue in a more theoretical sense, as the accompanying questionnaire item illustrates:

In order to respond to/adapt EFL teaching to a multilingual learning group, the teacher should have learned

a) … as many languages as possible in a formal context (e.g. in school)

b) … as many languages as possible informally (e.g. through migration)

Out of 39 respondents, 22 (56.41%) opted for (a), followed by 16 (41.03%) who opted for (b). Many students emphasized that they found both options useful, and explained their view by offering advantages and disadvantages of both options. However, every student arrived at a clear choice by weighing their arguments. One student (2.56%) stated that according to him, neither option plays a role.

The arguments put forward by the students who supported teachers' formal language learning biographies may be put into three main categories, namely "thoroughness of language knowledge", "transfer of language learning experiences" and "language-specific arguments", graded by the number of students' references, respectively.[11]

As for the first category, students frequently emphasized that in formal school contexts, grammatical language items are learned *"strategically", "systematically"* and *"consciously"* which is why teachers who have learned languages this way are *"later able to explain differences between languages in a correct and factual manner"*. Within the second category, students expressed their conviction that *"teachers draw on their own school experiences to understand pupils' problems"*. More precisely, it was argued that *"teachers remember the teaching methods by which they were taught, and they can apply these methods in their own teaching later"*, and, further, that *"these teachers know what it is like to learn a new language from the start in school"*. The third category subsumes arguments more utilitarian in nature, i.e. they refer to the specific languages teachers have at their command due to formal school education. These languages include, according to students, French and Spanish, which allow teachers to offer their pupils *"language comparisons"* for *"these teachers have learned the same languages at school as their pupils have to learn now"*.

To a certain extent, the arguments put forward by students who opted for version (b) of the questionnaire item fit the above categories, albeit with differences

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[11] As suggested by Mayring (2010), careful attention was paid to the level of category abstraction, i.e. it was ensured via repeated data analyses that the categories still reflect what was actually written by students.

78   in terms of content and prioritization: Students' comments which may be subsumed under the category "transfer of language learning experiences" were the most frequently mentioned. What is more, an emotional component was included in the statements provided by the students who opted for option (b), which was missing in the ones put forward by the students who opted for option (a) (cf. comment 3 below). The students who opted for option (b) found teachers' informal language learning biographies more useful than formal ones to adapt EFL teaching to multilingual learning groups:

(1) *Teachers with a migration background may act as role models for their pupils, especially because they know about specific culture-related behaviour.*
(2) *Pupils who share a migration background with the teacher can identify themselves with the teacher. In addition, these teachers know how it feels not to speak the official language well and what it is like to speak different languages in school and at home.*
(3) *I know from experience that pupils with a migrant background respect immigrant teachers. They have a strong emotional bond.*

"Language-specific arguments" clustered around languages such as Arabic or Turkish. It is assumed here that these languages are generally associated with immigrant teachers and pupils in Germany, a premise also reflected in students' comments who argued that "*the number of pupils with a migrant background increases, and most of them speak Arabic or Turkish. Teachers who speak these languages are better able to understand these pupils' thoughts*".

Albeit arguments falling into the third category, "thoroughness of language knowledge", were relatively few in number, they offer interesting insights into what kind of language knowledge, according to students, might assist teachers who have acquired languages informally in responding to multilingual EFL learning groups. As one student put it: "*Teachers who have learned their languages out of school are probably more sensitive to pragmatic language aspects than teachers who have learned languages in formal contexts only. Hence the former are maybe less able to explain grammatical rules, but outperform the latter in terms of showing pupils pragmatics*".

5.2 Language (learning) biographies and multilingual-sensitive learning tasks

To gain insights into the impact students' LLBs had on the concrete planning of their mini lessons, the following questionnaire item was formulated:

My languages helped me to design appropriate learning tasks for multilingual "pupils".

From the 39 students who responded to this item, 14 (35.90%) agreed that their languages had helped them "to a medium extent", followed by 5 (12.82%) who chose

"to a high extent" and 1 (2.56%) who opted for "to a very high extent". A number of students not to be underestimated (a total of 48.71%) stated that their languages only helped them to design learning tasks "to a rather low extent" (13 students, 33.33%) or "not at all" (6 students, 15.38%).

Students who agreed that their languages had helped them to develop appropriate learning tasks predominantly argued that Romance languages learned at school put them in the position to design tasks which explicitly focus on language comparison, thereby having "pupils" being actively involved in finding grammatical and lexical contrast and similarities between related languages. Other languages such as Turkish or Arabic led students to think of tasks which underline phonological similarities of languages so that "pupils" may use these similarities to understand English texts.

Many comments went beyond the design of specific learning tasks and included aspects such as classroom management (1) and learning assistance (2, 3):

(1) *Because of my languages, I knew which pupils could help each other during task performance. This helped me when I made the seating plan. .*
(2) *My languages helped me to individualise tasks and to develop learning aids for pupils. For example, we designed a vocabulary sheet for Ahmed[12] and provided electronic dictionaries for non-German pupils.*
(3) *I learned from the other group members, who speak languages such as Turkish or Arabic, that some pupils have a writing system different from ours. It was also easier to estimate how difficult a task would be for pupils with a non-European background.*

The fact that students planned the micro-teachings in groups turned out to be useful: This way, students had access to their group members' languages in addition to their own ones, as shown in statement (3).

The arguments put forward by students who rather denied their languages to have played a significant role when designing language learning tasks cluster around three major aspects. First and foremost, students argued that they "*were not competent enough*" in their additional languages to employ them as resources for task development. Second, students emphasized that neither themselves nor their group members were in command of languages represented by the "pupils", i.e. by the role cards, such as Turkish, Arabic or Polish. Third, the scarce use of languages for task development was explained by the fact that "*the chosen content of the lesson did not lend itself to multilingual-sensitive teaching*".

5.3 Précis

In terms of question 2 (section 3.3), students' answers to the questionnaire item which served as an indicator of students' multilingual-sensitive practical teaching

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[12] Cf. footnote 6.

capabilities reveal that a narrow majority found their languages useful to design appropriate learning tasks for multilingual pupils. Quite a number of statements put forward by students who denied their languages as a positive role in designing multilingual-sensitive learning tasks hinted at their lack of knowledge of specific languages to be one of the reasons for this: according to students' comments, they found themselves unable to develop multilingual-sensitive tasks because they were not in command of languages represented by their pupils, i.e, they did not speak "enough" languages. This may lead to the suggestion that the more languages students have at their command, the richer the language basis they draw upon to develop their practical teaching capabilities. Students' comments were very straightforward here since they suggest that the "richness" of their language basis is to be understood as a 1:1 match of languages spoken by pupils and the teacher. If, however, this "richness" is perceived as a more cross-linguistic or meta-linguistic multilingual awareness evolving from the existence of a critical number of languages in students' repertoire, it has to be pointed out that no student referred to such a kind of awareness.

6 Summary and discussion of findings

The reflections the present article is based upon aimed primarily at gaining explorative insights into the development of pre-service EFL teachers' Professional Vision (PV) and practical teaching competencies in video-based, multilingual-sensitive (MS) classes. In this context, it was to be investigated whether students' individual language (learning) biographies (LLBs) have an impact on the development of their PV and practical teaching competencies. The elaborations made throughout this article allow for tentative answers.

As for question one, it is safe to say at this point that students' LLBs had a positive impact on the development of their PV. When engaged in video reflection, students drew on their languages to arrive at a deeper understanding of pupils' contributions. The reported ability to reconstruct *and* predict EFL learners' mistakes and potential learning difficulties mirrors findings from earlier research (Ellis, 2004; Garvey & Murray, 2004). Concerning the nature of the impact students' LLBs have on their PV, it has become obvious that students employ their implicit knowledge of, as well as explicit knowledge about languages they have learned in school or — if that was the case — acquired in more informal learning contexts. Formally learned languages enabled students to arrive at a deep understanding of pupils' learning difficulties, partly because students were familiar with formal school settings and partly because they had all learned English as a foreign language themselves.

Romance languages fostered students' awareness of language similarities which, according to students, can be exploited to facilitate pupils' EFL learning. Students also relied on their first languages during video analyses, especially if these L1s were languages other than German. The use of first languages other than German clearly went beyond linguistic aspects such as language comparisons. Emotional aspects

were covered as well. More precisely, students' first languages enabled them to understand pupils' feelings of "otherness" and accompanying difficulties such as a lack of understanding of teachers' instructions and task requirements, a finding clearly in line with Safford and Kelly's notion of "mirror participants" (Safford & Kelly, 2010). Another finding that supports existing research is namely the fact that the number of languages at a student's command seems to determine their PV development (cf. Otwinowska, 2014).

Regarding question two, it has become obvious that, although a slight majority of students employed their school languages to uncover language contrasts and similarities and their home languages to adopt learning tasks to various students' needs, those students who felt unable to use their languages to design multilingual-sensitive learning tasks ascribed this to their lack of competency in specific languages. Again, Otwinowska's findings are supported here (cf. Otwinowska, 2014).

Throughout the entirety of students' remarks and comments, a certain dependency on specific languages was noticed, i.e. the view that only a match between their own and pupils' languages enables them to develop PV and practical teaching competencies. To overcome such rather shortsighted positions it is up to teacher educators to find ways of how students may develop a meta- or cross-linguistic awareness of multilingualism that will enable the teacher to plan, implement and reflect upon multilingual-sensitive EFL teaching without having competencies in all the languages represented in a specific classroom (especially languages which are typologically distant from the target language English and the surrounding, official language). Cooperative activities of teachers who are in command of a wide array of languages are a step into the right direction, but more theory-based and conceptual frameworks have to be developed as well.

The present reflection is subject to various limitations: Although the theoretically-driven conception of Professional Vision (section 1) suggests that pre-service teachers' "video reflection" and their "empathy with pupils" may serve as appropriate indicators of Professional Vision, this has not been empirically proven. Future research needs to examine to what extent both indicators qualify as reliable aspects of the construct of PV. Further, students' written comments should be revisited in follow-up interviews to consolidate their meaning, and to extend the knowledge about the relation between LLBs and PV development.

Another limitation which has to be addressed is the way the data collected was analysed. As mentioned in section 3.3, students' written questionnaire responses were collected, ordered and interpreted inductively to find similarities and contrasts between students' statements. Although this approach allows for insights highly explorative in nature, it cannot replace more systematic investigations suggested by content analysis (Kuckartz, 2012; Mayring, 2010). Still, the findings obtained can be used to inform further research in such a way as to provide a basis for the development of categories which, in turn, allow for more quantitative insights into the role pre-service teachers' LLBs play in the development of their PV and practical teaching capabilities.

82   Finally, the context within which the students who responded to the questionnaires produced and analysed teaching videos was a highly artificial one, particularly since students played "pupils" according to pre-designed role cards. It remains to be seen whether the findings made here maintain in authentic learning contexts.

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Students' Use of English in German Lessons

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Abstract: In language learning, teachers often encounter multilingualism when teaching a specific language. Multilingualism is the ability to use languages in an interconnected way; languages as such can be thus approached rather as a linguistic repertoire. In this study, we look at how students (and teachers) in Czech schools deal with English use within German lessons. In this context English is the first foreign language taught to students and German the second foreign tongue taught in school. Twenty-eight lessons from four experienced language teachers were recorded at lower-secondary level. Conversational analysis of transcripts identified 65 instances of English use in German classes. The analysis suggests that English is used in three ways, either it is seen as a *source of a problem* that needs to be repaired, it is *accepted practice*, or the use of English is *initiated by the teacher*. Our analysis suggests that using English language in German lessons and potentially multilingualism in teaching does not have a clearly defined status. Furthermore, inconsistency in teacher responses to multilingualism may require clearer consideration as to if languages are taught as discreet entities or more flexible linguistic mechanisms may be adopted to facilitate learning.

Keywords: multilingualism, foreign language teaching, usage-based SLA, language practices, conversation analysis

In modern society, with global communication, widespread migration and media access, few people can say they live in strictly monolingual environments and speak only "one language" (Busch, 2012a). Different languages, parts of languages, and dialects, for example, are a part of everyday life and make up our linguistic repertoire for various everyday situations. In this study, we focus on the dynamic use of languages that are learned and used within school environments.

In the first part of this study we introduce the concept of languages as a *linguistic repertoire*. As the focus is on the languages that students learn in school, which for this project is English as the first foreign language and German as a second foreign language, we introduce the usage-based perspective on second language acquisition (SLA) and discuss limits and opportunities of using more languages in foreign language teaching.

In the second part, the methodology will be introduced, including the analytical procedure (conversation analysis; CA) and the unit of analysis. It is assumed that CA offers an appropriate insight into the microstructures of interactions between

86   the teacher and the student(s), but CA also allows us to display some features of language policy that are established in the classroom.

In the next part, the results will be presented. When interpreting the results, we take into account not only language policy, but also the institutional context, i.e. the roles of the teacher (e.g. as language policy maker) and the students that are set by the "school" as an institution and its influences on interaction. In the last part, our results will be discussed with respect to language teaching and language policy.

1 Languages and multilingualism

In this study, it is assumed that no one is monolingual and that everyone is "equipped" with a specific range of for example, languages, dialects, varieties, and routines (Busch, 2012b). A speaker, to produce social meaning, uses this *linguistic repertoire*. According to Gumperz (1964, p. 137), linguistic repertoire can be understood as the 'tools' of everyday communication. Speakers choose from this toolbox in accordance with the meanings they wish to convey. Furthermore, social occasions limit the participants in their communication and more importantly, limit the kind of social relationships that may be brought into play (Gumperz, 1964). Moreover, the use of languages is in this study understood as an example of social practice, based on Vygotskian socio-cultural theories.

There are two contrasting views on language – that of languages as isolated systems with strict rules as proposed by de Saussure or Chomsky, and that of languages as a systems with heterogeneous constructions, each with affinities to different contexts and in constant adaptation to usage (Bybee & Hopper, 2001; Lewis, Jones, & Baker, 2012). Our research perspective is not focused on static structures such as syntax, grammar, lexica or on the influence of one language upon another but rather on the dynamic and heterogeneous composition of linguistic repertoires.

There are many approaches to studying the usage of languages as dynamic and/or fluid entities, each underlining a specific domain but with some crossover in approaches. For instance, the term *translanguaging*, which is rooted in Vygotskian sociocultural theories, refers to the dynamic nature of multilingual practices (García, 2009; Canagarajah, 2012). The concept of *heteroglossia* highlights the multilinguality, the multivoicedness and the multidiscursivity of society. It can be characterised as the awareness of diversity not only in the sense of a multitude of separate and bounded language communities but also within a community, within a network of communication or within a given situation (Bakhtin, 1981; Busch, 2010). The term *translingual practice* describes the dynamic language manners not only in oral, but also in written production, predominantly in academic contexts (Canagarajah, 2012). *Transidiomatic practices* refer to the communicative practices of transnational groups that interact using different communicative codes simultaneously present in a range of local and distant communicative channels

(Jacquemet, 2005). The concept of fluid practices of language in urban contexts, known as *metrolingualism*, rejects the idea that there are discrete languages or codes (Otsuji & Pennycook, 2010; García, 2014). In this study, we will not focus upon any specific concept; the emphasis rather is placed on the dynamic nature of language practices.

In the context of languages and multilingualism in education or schools, three dimensions of research interests are identified (Vetter, 2013). Firstly, it is the awareness and recognition of the linguistic resources available with respect to multilingualism, such as language policy or national strategies (Krzyzanowski & Wodak, 2011; Johnson, 2010). Secondly, the instruction and learning in language/s (classroom practice, language for specific purposes, translanguaging in instruction: Blackledge & Creese, 2009; Bonacina-Pugh, 2012; Makalela, 2015). Finally, foreign language teaching is of interest to the research community (Henry & Apelgren, 2008; Dewaele & Thirtle, 2009). In this study we combine the perspective of foreign language teaching and the perspective of instruction and learning in languages, because our aim is to describe language practices during teaching of foreign language. We assume, that the dynamic use of student's repertoire (hereafter referred to as languages) is natural part of student's learning and acquisition[1] of languages. For this reason we explain the usage-based perspective in context second language acquisition and furthermore we discuss some limits of language use set by language policy on the one hand, while on the other hand we indicate, how opportunities of using more languages can be established.

2 Usage-based perspective: use of more languages during instruction

The usage-based perspective of thinking about language teaching and learning is linked to the social turn in SLA (Firth & Wagner, 1997). The social turn reflects the critique on cognitive-based SLA in a sense that it does not provide sufficient theoretical and methodological instruments that could describe processes of language learning (Klein, 1998). The heaviest critique is led against what Klein (1998) termed "target deviation perspective" that consider "native language" as an undiscussable requirement for second language.

The perspective of the social turn underlines specific way of learning a second language(s) respecting individual needs of learners and social situation. Although social factors were always part of SLA explanations, the social turn is marked by identification of interaction as a key concept for language development (Long, 1981).

Research in field of SLA respecting the social turn has led to a need to redefine its key concepts. *Cognition* is understood as a two or more way process and it is embodied in Vygotskian socio-cultural theories. *Grammar* has been reconstructed

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[1] With regards to Könings (2010) in this study we use terms foreign language acquisition and learning synonymously.

as meaning making and as meaning construal in cognitive linguistics. *Interaction* has been redefined as socially distributed (accomplished in conversation analysis) while *learning* has been investigated as social apprenticeship in language socialisation theory and *self-concept* has been reconceptualised in identity theory as socially constructed and contesting positioning for being in the world (Ortega, 2013).

2.1 Limits and opportunities of the use of more languages

In this study, it is assumed that language use in the classroom is influenced by multiple factors, from the disposal linguistic repertoire of the children to language policies on different levels. As we have languages, we focus on the setting limits of language use in the classroom and on creating opportunities to use more languages that are set by the teacher. Within this study, the term teacher is used for the reference to the language teacher.

As an umbrella term for processes of setting limits into the language use we consider in this study the concept of *language policy*. The term *language policy* refers to many processes linked to the state power and its efforts to regulate the use of languages. In the context of education, language policy is connected to language planning (Coulmas, 1985) and ideology (Woolard, 1992). Considering language policy in teaching context, the extension of the term is apparent – language policy can be understood as all forms of influencing languages in schools and in classrooms.

Based on this presumption, the teacher can be considered an enactor of the language policy in the classroom. This means that teachers make their own language policy trough *appropriation*. Appropriation refers to the ways in which enactors interpret and take in policy elements, thereby incorporating these discursive recursive resources into their own directions of motivation, interest, and action (Levinson et al., 2009, p. 779).

Understanding teachers as language policy enactors requires recognition of policy as processes that are embedded in ideologies concerning languages, and in the teachers' own sense of usability and reasonability of policy, and in their notion of second foreign language teacher professionalism. In the context of teacher professionalism, didactic concepts that build on using more languages in teaching a second foreign language have been designed. Those programmes and concepts assume that multilinguals select features and (co-)construct their language practices – from a variety of their linguistic repertoire and relational contexts – to fulfil their communicative needs (cf. Hufeisen, 2010, p. 377). Using more languages and supporting of using more languages is from this perspective seen as opportunity to communicate but also to learn languages.

An example of such a programme is the concept of *third language didactics* (*Tertiärsprachendidaktik*). It focuses on learning languages additively, but it stresses respecting and making use of previously acquired languages (Hufeisen & Neuner, 2003). The concept of *intercomprehension* on the other hand, concentrates on teaching (especially receptive skills) of more languages from one language family

together (Bär, 2009). There are also *plurilingual education programmes* that are based on the dynamic use of languages during teaching (García & Kleifgen, 2010).

2.2 Language use from the research perspective

Overall research in the field of multilingualism in education shows that using multilingual resources can positively affect learning environment of students and can contribute to positive schooling experience (García, 2009; Wei, 2011). For instance Makalela (2015) has shown, that using multilingual (originally translanguaging) practices in preparing pre-service teachers for multilingual classrooms has both cognitive and social advantages that are not typically associated with monolingual classroom interaction. The pre- and post- achievement tests have all shown that translanguaging strategies are effective in increasing the vocabulary pool of multilingual speakers. While the reflective accounts of the study participants revealed that breaking boundaries between a range of linguistic resources in multilingual classrooms affords the students a positive schooling experience and affirms their multilingual identities.

Becoming multilingual during schooling at a specific age brings specific issues into the language learning research. Special ways of language use by bilinguals, who learned their second language (L2) post-puberty and became writers and scholars in this language, were investigated by Pavlenko (1998). In her qualitative study she focuses on the relationship between languages and selves. By using autobiographic narratives she examines subsequent stages of second language learning (SLL) and the person's current positioning. Based on the data source an argument is presented for new metaphors of SLL, new approaches to SLL, and for the existence in some cases of two stages of SLL: a stage of losses and a stage of gain, with specific substages within.

As language use is often restricted in instruction because of set language policies in the classroom, the teacher adopt the role of a language policy maker, and these processes are also reflected in research. Stritikus (2003) in his case study examined the processes of how literacy and language policy get translated into classroom practice. Such processes are described by a variety of factors which have been used in policy research to explain variations in policy implementation such as the nature of the local school context, the beliefs and experience of the teacher, and ways in which the teacher might learn from a new policy context. Such a perspective brings the dynamic roles into focus that teachers play in the enactment of educational policy, and the manner in which practice may shift with time.

Furthermore, the way in which and when languages are used in school context is linked to didactic methods and procedures. It has been demonstrated that numerous alterations in the participants' orientations to social identities and both internal and external discourse occur (Kasper, 2004). The study highlighted the payoffs of an emic microanalytical focus, attending jointly to locally produced actions and membership categories as they are made relevant by the participants in the sequential unfolding of the interaction. The conversation analysis methodology allowed the authors to

document in detail how a very weakly defined task was transformed into a complex hybrid activity by the participants.

The usage-based research in SLA is often focused on learning L2 and the research of multilingualism in the context of social turn concentrates on multilingual learning environment and the social impact of using different languages during teaching. In this study, however, we investigate what teaching situations look like in the so-called third language classroom where multilingualism is ensured by the fact that students have already learned to some degree a first foreign language.

3 Methodological considerations and procedure

As aforementioned, this study focuses on language practices in second foreign language teaching. The aim is to describe teaching situations using German as a second foreign language example in which students' use of English as first foreign language is evident. It should be pointed out that this study only takes into account languages learnt at school (specifically English and German) and cannot include non-school based language learning and use.

The main research question is how teaching situations are organised in which the students' use of the first foreign language (English as L2) in the second foreign language lessons (German as L3) is evident.

3.1 Research sample

The research sample consists of 28 videotapes and transcripts of lessons of German as a second foreign language at lower-secondary schools in the Czech Republic (children aged circa 10 to 14). Seven teachers participated in the study – four lessons were videotaped for each teacher[2]. The data was collected in 2012 as part of the research project *IRSE Videostudy* in schools in the South Moravia region. Participating schools were randomly selected. Informed consent was obtained from all participating teachers and from parents of all students.

All the students in the research sample had been learning German less than 2 years prior to this study at school as a second foreign language (with English being their first foreign language). The teachers from our sample self-assessed their English to be between A2 and B2 level (*Common European Framework…*, 2001). Their teaching experience for German ranged from 9 to 20 years.

3.2 The unit of analysis and research method

The unit of analysis in this research is termed *the teaching situation*. The term situation is generally not used as a "terminus technicus" in research (Deppermann

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[2] Teachers are labelled by letters A–G, the order of lessons by numbers 1–4.

& Spranz-Fogasy, 2001, p. 1148). In this study, the *ethnomethodological* perspective of situation is emphasised, which posits that in a situation, *meaning* is shaped and socialisation takes place (Schütze, 1987, p. 161). A teaching situation is understood as a thematically cohesive part of instruction in which interaction between the teacher, the student(s) and the educational content is evident (cf. Janík et al., 2013). A situation consists of several turns or sequences.

The focus of our research is, however, only on such situations in which students' use of English in the lessons of German as a third language is evident. This broad definition includes all instances of use of English (or fragments of English), be it English pronunciation in a German word, students' use of an English word when the German word is beyond their knowledge, or when the use of English is initiated by the teacher.

Conversation analysis (CA) allows researchers to examine communication relatively independently of external factors and predefined structures. This means that CA can help us understand processes in a conversation solely from within the conversation itself. Although CA is considered primarily a linguistic (or sociolinguistic) method, its interest lies not in linguistic forms themselves, but rather in the way in which they are used to embody and express subtle differences in social actions. The fundamental CA questions are: Why this, in this way, right now? (Seedhouse, 2004). Furthermore, CA is interested in the *emic* perspective of social reality, i.e. the perspective of members of the interaction (ten Have, 2007). This does not mean CA does not use technical vocabulary such as *adjacency pairs, turn-taking, preference organisation* or *repairs*, but this terminology refers to members' *knowledge-in-use*. *Knowledge-in-use* can be understood as members' method to realise interaction or knowledge its procedural infrastructure.

Two approaches to CA are distinguished, *basic CA* as proposed by Sacks, Schegloff, and Jefferson, and *institutional CA* (Heritage, 2005). In institutional CA, the actors of conversation hold a specific role and corresponding identities such as patient/doctor, customer/waiter or student/teacher. Moreover, the institutional context provides a specific framework which establishes the typical language procedures (Drew & Heritage, 1992). In our study, approaches of institutional CA were used.

3.3 Conversation analysis in research on second language acquisition and multilingualism

CA has been used to study interactional processes in foreign language teaching, often within the realm of *second language acquisition* (SLA). SLA is often used as an umbrella term for learning and teaching of the additional language(s), however, there are differences between foreign language teaching, learning and acquisition (Königs, 2010). Scholars using CA in the context of SLA tend to focus primarily on structures that show how languages are learned or acquired in interaction while an active role of all participants in interaction is presupposed (Markee & Kasper, 2004). This means that students are seen as active actors of communication in the classroom who transform tasks in interactional teaching situations just by entering the communication

92 itself (cf. Coughlan & Duff, 1994). Studies that focus on multilingualism and use CA attempt to describe how and why multilinguals switch their languages and how they use their linguistic repertoire in conversation (Gracía & Wei, 2014; Cashman, 2010). Use of languages is dependent on the specific contextualisation cues and social conventions (Gumperz, 1982).

3.4 Research design

This study was realised in three phases. In the first phase, data collection procedures were designed, permissions obtained and the data (videos and contextual information) was collected. In the second phase, the videodata was transcribed in *Videograph* programme (Rimmele, 2002) and situations where students use English were identified. Due to the nature of teaching situations it is difficult to pinpoint the exact start and end of a situation. In this study, the start of a situation is defined as the first turn that is connected to a sequence with students' evident use of English. The end of a situation is located where actors leave off responding to previous turns and change topic. The identified situations were subsequently transcribed in transcription system GAT2 (Selting et al., 2009), which is suited for conversation analysis as it provides more details than simple transcription in *Videograph*. In the third phase, the data was analysed using institutional CA. The original video recordings were reviewed during analysis multiple times to derive greater insight such as tone and context in a conversation.

4 Results

The focus is primarily placed on the organisation of the identified situation, in which the students' use of English is evident. In the analysis and interpretation, the context of teaching German as a third language will be taken into consideration. Altogether, we identified 65 situations, and from these we will use some situational examples and identify the key ways that other foreign languages are used in foreign language teaching.

Teaching situations containing the use of English were predominantly organised in initiation-response-feedback (IRF) structure (Mehan, 1979). The term IRE (*initiation – response – evaluation*) has also been used in some studies but the context of use is the same (Mehan, 1979). IRF structure is seen as typical for the context of instruction (Seedhouse, 2004). It consists of three phases of interaction: initiation (such as teacher question), response, and feedback (teachers response and evaluation of students answer). IRF structure has many variations depending on the situation. These variations are often connected to students not providing the expected response and include counter questions, cluing or request for more detailed elaborations.

The following sections introduce different examples in which English has been used in German language lessons. The aim is to provide an overview about the

structure of typical situations. The extent of each does not reflect the mathematical proportion of analysed situations.

4.1 English seen as a problem

In the following situations, the students' use of English is seen by the teacher as a source of a problem that needs to be redressed. In such situations, it is often the teacher who provides the repair (in CA, this is called *other-initiated other repair*). This appeared to be the most common[3] practice in analysed situations and will be described in the next chapter.

Other-initiated other repair

English seen as problem followed by a repair (*other-initiated other repair*) we can demonstrate on the following example (situation 1). This situation took place during checking homework.

Situation 1 (T: E_4)[4]

01	T:	Ina se směje, jo? Jirko, poď.
02	S1:	Ich swimming.
03	T:	Schwimme
04	S1:	Schwimme (–) [Já plavu]
05	T:	[Michale]
06	S2:	Ihr weint

01	T:	*Ina is laughing, right? Jirka, come on.*
02	S1:	Ich swimming.
03	T:	Schwimme
04	S1:	Schwimme (–) [*I'm swimming*]
05	T:	[*Michael*]
06	S2:	Ihr weint

In his response to the teacher's cue (line 1), the student (S1) uses English (line 2) and in the following turn the teacher provides a repair in the form of *recast*, i.e. re-phrasing of utterance with the same meaning; such as described by Long (1996) and MacKey and Philip (1998). Although the student rephrases his utterance in the next turn (line 4) and indicates this way that he has recognised the repair, the teacher does not acknowledge it and turns their attention to another student.

Recast is one of the most common reactions when a student's utterance does not comply to the teacher's expectation. The recast does not allow the student to reflect his previous utterance and seems to be not very effective way of giving a feedback (Lyster & Ranta, 1997), however, teachers often use recast in cases of "errors" that, from the teacher's perspective, do not require intensive pedagogical intervention (Doughty, 1993).

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[3] The aim of this study is not to count the occurrences of the use of English language but to describe how it is realised and what it means for the interaction between the students and the teacher. The vague information about the number of situations should provide only superficial overview. Any exact sum would be misleading due to the diversity of analyzed teaching situations.

[4] Author's translation into English is provided. The parts of the utterances originally said in German are kept in German or English. Those originally uttered in Czech are in italics. All names were anonymised.

Other-initiated self-repair

In the next example we focus on practice where students' use of the English language is seen as source of problem, but instead of repairing the utterance, teacher requires the repair to be provided by the student themselves (*other-initiated self-repair*). Although in the research sample such practices were not very common, from teaching perspective they seem to be more effective for learning and reflecting languages (Lyster & Ranta, 1997). Situation 2 illustrates such an occasion. The class is checking a completed exercise in the textbook and answering additional questions about clothing devised by the teacher.

Situation 2 (T: F_3)

01	T:	Tak. ( ) antworte bitte auf Deutsch. Zkus nám odpovědět německy.	01	T:	So. ( ) antworte bitte auf Deutsch. *Try to answer in German.*
02	S1:	( )	02	S1:	( )
03	T:	A ještě teda, kdybys odpověděl celou větou. Chlapci s čepicí se jmenují tak a tak.	03	T:	*So, If you could answer with whole sentence. The names of the boys with the cap are so and so...*
04	T:	<< učitelka se obrací k dalšímu žákovi>> Tak, jak se řeknou chlapci?	04	T:	<<*the teacher turns to another student* >> *So, how do we say boys?*
05	S2:	Boy.	05	S2:	Boy
06	SS:	[((smích))]	06	SS:	[((*laughing*))
07	T:	[Tak boy (.) když už (.)] tak boys ist in Englisch (.) Auf DEUTSCH,	07	T:	[*So* boy (.) *If so* (.)] *so* boys ist in Englisch (.) Auf DEUTSCH,
08	S2:	Die Jungen.	08	S2:	Die Jungen.
09	T:	Die Jungen.	09	T:	Die Jungen.
10	S2:	Mit der Mütze.	10	S2:	Mit der Mütze.
11	T:	Mit der Mütze. Jmenují.	11	T:	Mit der Mütze. *Their names are.*
12	S2:	Heißen.	12	S2:	Heißen.
13	T:	Hießen.	13	T:	Heißen.
14	S2:	( )	14	S2:	( )
15	SS:	((smích))	15	SS:	((*laughing*))

One student is answering a question; while he is thinking, the teacher is trying to help him by reformulating the requested response in Czech (line 3) and by breaking the question down, for example "How do we say boys"; line 4. In the following turn, the student uses English to accomplish the task. Afterwards, the teacher draws attention to the use of English and encourages the student to answer in German (line 7). In the next turn (line 8), the student "repairs" his previous answer and uses German, which is acknowledged by the teacher (line 9) by echoing the student's utterance (*re-*

peat) and, in doing so, the teacher invites the student to continue with the task (so called *designedly incomplete utterance*; Koshik, 2002). In the next exchanges (lines 10 to 15), the student and the teacher deal with the task, but English does not appear any more. Such interactional form of collaborative step-by-step realisation of required utterance can be understood as *co-operating organization* (Pomerantz, 1978).

Self-initiated self-repair

In very few situations observed were students aware of the problem in their utterance that included English language and realized the repair without any external initiation (*self-initiated self-repair*). This practice, however, indicates awareness of languages. One of these situations occurred during the revision of months in a year (situation 3).

Situation 3 (Teacher: G_3)

01 T:	Takže Patrik, Světlana, jo? Co tady ještě nebylo? Dáme si třeba (–) květen =.	01 T: *So Patrick, Světlana, ok? What didn't we have? We will have for example (–) Mai =.*
02 S1:	= Květen.	02 S1: *= May.*
03 S2:	March (–) Mai.	03 S2: *March (–) Mai.*
04 T:	Mai. Dobře.	04 T: *Mai. Right.*
05 S3:	Ty se tady snažíš.	05 S3: *You are trying, aren't you.*

The student is asked to translate the word May (*květen*) into German. When answering he uses the English word March, which he himself recognises as an inappropriate answer and immediately repairs (line 3). However, it is not obvious if the reason for the repair was the language choice, factual mistake or both. In the next turn, the teacher simply confirms the answer by repeating it and by using the word "right". The situation ends on line 5 by "feedback" from a classmate in the *sub-floor* communication in a slightly ironic tone (van Lier, 1988).

Overall our data shows that English is sometimes seen as source of a problem for teachers, but also for students. When the teacher reacts to English as to a source of a problem, they often just reformulate the student's utterance or (more rarely) require the repair by the student. When the student recognises English as a source for repair, they realise it without any initiation on the side of the teacher.

4.2 English as accepted practice

In many situations, no reaction to the use of English is obvious. In this study, such practice is understood as accepted language practice in the sense that participants of the interaction do not see it as problem that requires some reaction or needs to be repaired.

In the first presented situation, there is no visible reaction of the teacher or the students to the use of English in their German lesson. This situation occurred within

an activity aimed at revising grammar, specifically at revising prepositions connected to countries (situation 4).

Situation 4 (T: F_4)

01	T:	Všechna vlastně jsme si řekli města, mají nach a státy pokud jsou rodu středního také nach, jenom in die (tady) má čtvrtý pád.	01	T:	*We said together all the cities that go with* nach *and countries if they are in neutrum and also go with* nach, *only* in die (*here*) *in akusativ.*
02	S1:	→ Nach England nach <<angl. výslovnost>England>, in die Tschechische Republik, nach Norwegen, nach ().	02	S1:	→ Nach England nach <<Engl. pronunciation>England>, in die Tschechische Republik, nach Norwegen, nach ().
03	T:	Ist es gut?	03	T:	Ist es gut?
04	SS:	Ja.	04	SS:	Ja

The student's use of English (line 2) is a reaction to the task focused on prepositions (line 1). Using English is apparently not seen by the teacher and the students as influencing the adequate completion of the task and, consequently, it is not repaired by the students (line 4); there is also no reaction or confirmation of correctness from the teacher's side.

It is obvious, that using of English in such situations is seen neither as barrier for understanding the communication in the classroom, nor does it disrupt the successful completion of the task. Overall it means also that the use of English is not consistently seen as source for repair, it can by accepted be teacher as way of fulfilling the task or the way how, to a certain extent, successfully communicate.

4.3 Use of English initiated by the teacher

In some situations, the students do not use English spontaneously but as a reaction to a communicative need, and the use is initiated by the teacher. In such situations, English is used as legitimate language practice that should lead to utterances in German. In this study we do not consider English as interlanguage (Selinker, 1972), because English is the requested language. An example of this is a situation that took place during a class discussion in which students describe each other using German terms for colours (situation 5).

Situation 5 (Teacher G_1)

01	S1:	Jak řeknu červený?	01	S1:	*How can I say red?*
02	T:	Červený?	02	T:	*Red?*
03	S1:	Ne. (.) Jak je hnědá?	03	S1:	*No. (.) How can I say brown?*
04	S2:	Bílý.	04	S2:	*White.*

05	T:	No, to je jak anglicky.	05	T:	*So, it is the same as in English.*
06	S1:	<<angl. výslovnost>brown>.	06	S1:	<< Engl. pronunciation >brown>.
07	S?:	Braun.	07	S?:	Braun.
08	T:	=Braun. Pomožte si tou angličti-nou, když už je spousta věcí je podobná, jo?	08	T:	=Braun. *You can make use of English, as there are a lot of things that are similar, ok?*

In this situation, the students are to describe the hair colour of their classmate. Firstly, they are negotiating the colour (lines 1–3). Then the student asks the teacher for help with how to say brown in German. That can be understood as a *claim of insufficient knowledge* (Sert & Walsh, 2013), but also as an expression of willing to work on the task. The teacher does not give a direct answer but he provides support by using a *metalinguistic clue* (line 4). From the perspective of CA, this form of cluing can be described as a kind of a *counter question* – that is why the student answers using English prompted by the teacher. Another student then provides the German word for brown. In the following utterance, the teacher repeats the German expression for brown again as part of giving feedback and in his following comment he draws attention to the similarities between German and English and the possibilities using English when learning. The utterance on line 4 is a fragment of *sub-floor* communication between the students that can be understood as a joke about the hair color of the classmate.

In most of the analysed situations, the teacher's initiation of English use usually serves as a clue when the students are, due to *insufficient language knowledge*, not able to complete a task. English is seen as a go-between language that can lead to the required answer in German. In almost all those situations, English was initiated in such language elements that are similar to German (e.g. some similar vocabulary) or as an illustration of certain differences (e.g. differences in pronunciation or in grammar).

To sum up this part of the study, we have shown that English in German lessons is naturally used by students in various situations. In some of them, English is seen as a source of a problem that needs to be repaired. In other situations, it is accepted or at least no reaction to using English is evident. But there are even situations identified and analysed in which English use is actually encouraged and initiated by the teacher and it contributed to student's appropriate and correct use of German language.

5 Discussion

In general, our study shows that using English is a natural part of teaching practice of German as a foreign language and the situations that include the use of English follow mostly the IRF structure that is common in teaching.

In situations in which the *other-repair* is realised by the teacher as a reaction to student's English, a so-called recast is usually used. According to some scholars,

teachers usually use recast in situations when they apparently do not want to deal with the repaired utterance (cf. MacKey & Philip, 1998). Moreover, in recast only the language form is addressed but the meaning remains. Recast thus indicates mutual understanding between the teacher and the student. From this perspective, English in German lessons is seen as an error. On the other hand, it is not seen as a structural mistake that has to be thoroughly treated. However, in other situations, another form of repair can be seen, one of the actors, instead of repairing, initiates the repair of the problematic utterance (*other-initiated self-repair*)[5]. It is not surprising that the initiation of self-repair is realised only by teachers. When initiating self-repair, teachers often provide *metalinguistic clues* to encourage the students' reflection on their language use (Lyster, 1998). Handling the use of English in such a way is relatively demanding and time-consuming, the use of English in such situations is seen as a problem that needs to be discussed and/or repaired. On one hand, this approach to English in German lessons could contribute to students' metalinguistic awareness. On the other hand, it could be perceived as a clear indication that language policy permits only the target language in the class. Many researchers criticise such strict separation of languages, as well as the presumption that only the target language can be used in class (Cummins, 2007; Fitts, 2009; García, 2009).

We have also shown examples of situations in which English was regarded neither by the teacher, nor by the other students as a source of a problem that needs to be repaired[6]. In such situations, English is accepted as a permitted language practice. It does not necessarily mean that the use of other than the target language was not noticed, but for certain reasons such as, a different aim of the activity, or time pressure, the use of another language did not hinder the communication or activity[7].

Finally, we have pointed out that in some situations teachers elicit the use of English. In those situations, English is used as a way of reflecting on languages that should lead to better learning of German. We assume that the teachers are aware of their students' linguistic repertoire and they try to take advantage of it. In other words, they create opportunities in their teaching to use their languages to successfully fulfil the task, even though the target language is originally demanded.

This study, as well as previous research, describes how in language education practice, languages are used flexibly. However, this flexibility is sometimes random and is used to draw students towards the target language (García, 2014). Moreover, our study indicates that students' languages do not exist prior to and independently of the task content; rather, multilingual practice is realised within the immediate context (Kloss & Van Orden, 2009).

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[5] This form of repair is very rare in everyday conversations but is more typical for classroom interactions (Seedhouse, 2004, p. 35).

[6] However, from the CA perspective, including such situations into the analysis is questionable. It is assumed that no reaction is also a type of behaviour in the classroom which can play a role in understanding language practices.

[7] Also if we accept the presupposition that the use of English could be seen from the teacher's perspective as a mistake or an error, many scholars (e.g. Kleppin, 2010) suggest that not every mistake/error has to be repaired – treating mistakes/errors should be connected to the aim of each activity.

If we look at the analysed situations from a pedagogical perspective, we can conclude that there was no evidence of a thought-out, conscious or consistent approach to using English in lessons. Consequently, the position of English in German lessons did not seem clear for the students. In some situations, using English was allowed and even supported, in some it was seen as a problem. This dichotomy even occurred within a single recorded lesson of a teacher[8]. Multiple studies indicate that teachers notice the linguistic repertoire of their students and its use, but they do not use them consistently for teaching (Göbel et al., 2010; de Angelis, 2011). In connection to such findings, our study suggests that the use of English in German lessons appears as a reaction to the ongoing communication situations and to the actual realisation of various teaching activities[9].

A limitation however of this study is the fact that our data does not include interviews with the participating students and teachers. As a result of this circumstance some questions remain unanswered, such as the students' perceptions of the language policy set by the teacher in the classroom, and the nature of teachers' reactions to English language whether deliberate or intuitive. The conceptual limit of this study concerns the theoretical design of the study. While we subscribe to the heteroglossic approach to linguistic repertoires, in the context of this study we are forced to work with the discrete languages.

To sum up, using more languages simultaneously seems to be natural in language teaching. Furthermore, many scholars, see accepting and deliberately using more languages an advantage especially in second foreign language teaching (Hufeisen, 2010). This study, however, shows that in the L3 German classroom, L2 English is seen as a natural resource for learning and a natural part of communication, or a problem that needs correction. The definite approach seems to be more situation-linked than teacher-specific and consideration of consistency in approach may be required.

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[8] Of course, we also found some differences between teachers, but no teacher displayed consistent language policy in relation to English during teaching German.

[9] For task-based communication in EFL teaching see e.g. Seedhouse (1999), for situational requirements of communication in FLT see e.g. Mondada and Doehler (2004).

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Specific Effects of Language Transfer Promoting Teaching and Insights into the Implementation in EFL-Teaching

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Abstract: The following contribution analyzes language transfer promoting instruction in the context of English as a foreign language (EFL) instruction in 9th grade secondary classes in Germany. By combining data from questionnaires, tests, and video-data, the article sheds light on learning outcomes in the context of language transfer promoting instruction and presents teaching practice of interlanguage reflection in ESL-teaching. Results indicate a positive correlation of language transfer promoting teaching with EFL listening comprehension at the beginning of grade 9. A correlation between language transfer promoting teaching did not show up with text reconstruction. The analysis of selected videos revealed sequences that hint at an attempt to promoting language transfer actually take place in classes of teachers reporting high importance for language transfer promoting teaching. However, these sequences do not display an elaborated language transfer promoting teaching. Language transfer promotion is implemented in a rather implicit way, while referring to German language only. Results indicate the need for elaborated strategies of implementation of language transfer promoting teaching.

Keywords: English as a foreign language teaching, implementation, language transfer promoting teaching

During the last few decades, Europe has been facing continuous migration with growing ethnic and linguistic diversity as a consequence, especially in urban areas (Vertovec, 2007). Consequently, an increase in the number of students with diverse linguistic experiences is noticeable in German schools, accompanied by a growing concern for their educational integration (Hesse, Göbel, & Hartig, 2008; Stanat, Rauch, & Segeritz, 2010). Although linguistic diversity can be a challenge for the integration of immigrant students in schools, multilingualism provides a linguistic resource for the psychological and linguistic development of students and for teaching in class. Linguistic proficiency is considered to be a key qualification in a world undergoing migration and globalization (European Commission, 2005). Empirical research points to considerable cognitive advantages of multilinguals in that the knowledge of two or more languages facilitates their learning of additional foreign languages in comparison with monolinguals (Bialystok, 2005; Jessner, 2008). Research has been able to show that multilingual learners possess a higher level of language awareness and more language learning strategies compared to their

monolingual peers (Cenoz, 2003; Naimann et al., 1996). Language learners seem to apply their language skills from one language to another and, as a result, the more languages learners have available, the more learning techniques and strategies learners develop, helping them to acquire new languages (Hufeisen & Marx, 2006). However, the lexical register of multilingual speakers is still supposed to be smaller than that of monolinguals (Mägiste, 1984). In addition to the advantages in language learning, bilingualism shows positive effects when general cognitive processes are considered: Regardless of age and social status, bilinguals show a higher competence in selective attention than monolinguals and, bilingualism decelerates dementia (Bialystok & Poarch, 2015). Therefore, researchers strongly support the need to nurture the learning of students' heritage languages in schools (Bialystok & Poarch, 2015).

Large-scale achievement studies examining the potential of multilingual learners with regard to the learning of English as a foreign language (EFL) support the assumption that immigrant students show a slight advantage concerning their English proficiency compared to that of their German-speaking peers. Results from a large-scale study in primary schools in Hamburg (KESS-Study) reports a language learning advantage for immigrant learners (May, 2006). Analysis of another German large-scale study focusing on the language proficiency of 9th graders (DESI-study) can arguably likewise show the positive effect of a multilingual background on foreign language achievement (Hesse, Göbel, & Hartig, 2008). In the DESI-study, three different learner groups were compared: students speaking German as a first language, students speaking a language other than German as a first language, and students speaking both, German and another language concurrently as first language (multilinguals). Multilingual students, as well as students with a first language other than German, showed a slight but substantial advantage concerning their outcome in the English tests as compared to monolingual German students with comparable learning preconditions. In addition, classrooms composed with a higher amount of bilingual students showed positive effects on the language learning results of the entire class. The DESI results give evidence to the assumption that a multilingual learning environment is beneficial for the acquisition of English as a foreign language in terms of the individual student and of the entire class (Hesse, Göbel, & Hartig, 2008).

The most prominent claim about language learning in a multilingual environment is the language transfer-hypothesis of Jim Cummins (2000) that suggests a positive impact of language competence in L1 to the language competence in L2. Actual empirical data from the DESI-study and from other large-scale studies confirm the relevance of this assumption (Edele & Stanat, 2015; Hesse, Göbel, & Hartig, 2008; Rauch, 2014). The language systems within the individual seem to be in continuous interaction; changes in one linguistic system might have an effect on other linguistic systems (Hufeisen & Jessner, 2009). Language skills in reading, listening, writing and speaking, as well as the making of inferences (in the sense of productive conclusions) are transferred from one language to another, while inferences have the tendency to

be more correct the more similar the languages of reference are (Cenoz & Genese, 1998). However, a special bridging function for further language learning is assigned to the first acquired foreign language (Meißner & Senger, 2001). The different language systems are in continuous adaptation and are becoming more interdependent (Hufeisen & Marx, 2010).

Learners can make use of language competence in other languages than the language being learnt in order to solve the linguistic task. They can learn to build bridges between their available language competences or to develop contrasts between them (Hufeisen & Marx, 2010; Meißner & Morkötter, 2009). The systematic use of former languages is a metacognitive strategy for language learning and the knowledge about how to master the learning process has been proven to be relevant for the learning outcomes. Besides the knowledge, it is the actual use of strategies and their appropriateness to the learning task that are important for the learning outcome (Artelt & Neuenhaus, 2010). The spontaneous use of transfer strategies is supposed to only happen among so-called "good language learners", whereas weaker learners need instruction to be trained to make use of linguistic transfer opportunities. Thus, students can improve their language abilities when possibilities for inferences, linguistic knowledge, and learning strategies are taught in a systematic way (Hufeisen, 2006).

Intercomprehensive strategies and reflection of languages play a special role in the learning process, thus prior linguistic knowledge can be used to decode unknown texts in a new language and hypotheses are made about the structure of the target language (Hufeisen & Jessner, 2009). Therefore, the use of native languages and other language learning experiences in class can be a benefit for promoting language learning and a positive perspective on the existing multilingualism in class (Krumm, 2005). Several didactical concepts aim at raising the awareness of linguistic phenomena, like searching for familiar linguistic structures in new linguistic contexts, making use of language comparisons from the first and second languages and the target language. The recognition of comparable items on different linguistic levels, such as morphology, lexemes/vocabulary, pronunciation, syntax and language learning strategies are being instructed within the language learning class (f.e. Behr, 2007; Hufeisen & Neuner, 2003; Klein & Stegmann, 2000; Meißner, 2005).

Still, the so-called "monolingual habitus" of German schools (Gogolin, 2008, 2013) entails a systematic lack of social esteem for multilingual students. It denotes an unexpressed habitual presupposition of homogeneity of students' linguistic and cultural experiences, while presupposing the normality of a monolingual socialization in the majority language. This immanent attitude is reflected in different educational structures and processes. For example, the monolingual attitude is reflected, in a lack of rewards (e.g. grades) for linguistic competencies in any other language different from the majority language and a few specific foreign languages that are also taught in school (in Germany, those languages are predominantly English, French, and Spanish). Furthermore, a monolingual attitude is represented in

teaching materials, teachers' questions, hints and scaffolds, which are constructed according to the majority language and culture and, thus, consequently form an obstacle for students socialized in a different language in terms of comprehending the content of the lesson (Gogolin & Kroon, 2000). A „pedagogy of plurality" as e.g. developed by Prengel (2006), on the other hand, centers on an intersubjective recognition between individuals who are different but equal, and avoids all forms of discrimination. With regard to multilingualism, it questions monolingual assumptions, addresses the needs of children with different linguistic socializations, and values and rewards all linguistic abilities not only those in the majority language. Strategies to promote language transfer in EFL teaching can be considered to be a possible contribution to achieving this objective.

There is still little empirical research on the effect of language transfer promoting instruction on language and intercultural learning (Göbel & Schmelter, 2016). Empirical studies in this field are still rare, but international comparative studies show that language teachers give little attention to the linguistic preconditions of their students (De Angelis, 2011). Firstly, results on language learning indicate that the synergetic use of different language abilities in the sense of a systematic comparison of linguistic repertoires seem to be most effective when learning German as a third language (Marx, 2005). Results on EFL-teachers' perspectives on language transfer promoting conceptions reveal that teachers agree about the relevance of language transfer promoting instruction but they report little use of this strategy in their teaching (Göbel, Vieluf, & Hesse, 2010). Furthermore, results of the same study indicate that teachers' attitudes towards language transfer promoting teaching and their perception of the implementation of it into their teaching is positively correlated with the overall English competence of the students in class (Göbel et al., 2010; Göbel & Vieluf, 2014).

The following contribution seeks to further analyze language transfer promoting instruction in the context of English as a foreign language instruction in 9th grade secondary classes in Germany. By using questionnaires, tests, and video-data, we want to know which learning processes language transfer promoting instruction mediates and how teachers encourage interlanguage reflection in ESL-teaching.

1 Research questions

Via reanalyzing data gathered within the DESI study (Deutsch-Englisch-Schülerleistungen International / Assessment of Student Achievement in German and English as a Foreign Language; DESI Konsortium, 2008), the following study aims to examine whether teachers' self- reported practice concerning language transfer promoting teaching have an influence on learners' achievement levels in the EFL subdomains of reading comprehension and text reconstruction, and furthermore how teachers apply language transfer concepts in their EFL-classes. We will look at the following aspects:

1. Is the self-reported practice of teachers concerning language transfer promotion linked to achievement gains in EFL listening comprehension and text reconstruction?
2. How do teachers with a high self-reported practice concerning language transfer promoting teaching actually implement language transfer in their teaching in class?

2 Design and results of the studies

The following paper is divided into two sub-studies: The first sub-study uses a quantitative approach and relates teachers' self-reported use of language transfer promotion to classroom and learning outcomes (Study I). The second sub-study is a qualitative study of selected videos of EFL-classes (Study II). Both analyses are based on data gathered within the context of the DESI-study. The DESI-study assessed at the beginning (T1) and end (T2) of the school year 2003/2004 German and EFL competencies as well as information on educational input and processes that are general characteristics of 9th grade students in Germany. In the course of the DESI-study a video-study on 104 EFL-classrooms was realized (DESI-Konsortium, 2008). Study I uses quantitative data from the DESI-study on language achievement and language instruction in order to reveal the relevance of language transfer promoting instruction on achievement in a longitudinal data set, while study II presents a video analysis from a selection of videos in order to describe the implementation of language transfer promoting teaching.

2.1 Study I: The link between language transfer promoting teaching and student achievement in English as a foreign language

2.1.1 Research aim of Study I

Study I aimed to examine whether or not teachers' self reports concerning language transfer promotion in EFL teaching are associated with changes in students' listening comprehension and text reconstruction in the course of grade 9.

2.1.2 Method of Study I

Participants

The sample drawn for the DESI-study was representative for the target population of all German 9th-graders attending a regular secondary school. A total of 219 schools and two classes within each school were sampled randomly. Participation in the study was compulsory for all students in these classes. Sampling weights were constructed to account for unequal probability of selection and all statistics reported in this article were computed based on these weights. Data from 9,502 students attending 381 EFL classes was used for study I. The average age of these students

108 was 15 years at the beginning of Grade 9, with 53% girls and 47% boys. 83% of the students reported they had learned German as their first language, 11% had learned another language than German, and 6% had learned German and another language as their first languages.

Measures
The variables used for study I were based on student achievement tests as well as student and teacher questionnaires. Descriptions for all study variables are presented in the Appendix.

Achievement data
EFL achievement was assessed at the beginning (T1) and the end (T2) of school year 2003/2004 by a test covering the content prescribed in the German federal states' curricula for grade 9. For the following analysis, data from two-point measurement of listening comprehension and text-reconstruction tests are integrated. The tests had been developed by collaborating experts of applied linguistics, educational testing, and school education (Beck & Klieme, 2007; DESI-Konsortium, 2008). The longitudinal scaling of the test was developed based on a multidimensional Rasch model (e.g., Briggs & Wilson, 2003), where each time point was represented as one dimension. In our analyses, we used plausible values obtained from this model. The reliability estimated from independent plausible value draws (EAP/PV reliability; e.g., OECD, 2009) was 0.70 for both occasions of measurement.

Language transfer promotion
A four-item scale based on teachers' self-reports assessed language transfer promotion in EFL classes. Teachers were asked about their use of foreign languages other than English as well as their use of the native languages of the students in their classrooms during EFL instruction. Responses included: "I use the different languages available to the students by referring to their native languages or other foreign languages, for instance, by drawing comparisons during my lessons"; "I relate to the students' native languages and other foreign language competences during my lessons by including their lexicon"; and "I relate to the students' language competences regarding their native language and other foreign languages by relating to pragmatics". Another question concerned teachers' attitudes towards language transfer. A common response to this topic was: "I believe that it is generally helpful to refer to students' native languages and foreign languages during language lessons". For each item, a 4-point Likert response scale was used (where 1 = *fully agree* to 4 = *I do not agree at all*). Items were re-coded so that a high score represents a highly perceived frequency or significance of language transfer promotion in German language and EFL classes and a low score represents a low perceived freuqency or significance. The internal consistency (Cronbach's alpha) was α = 0.88 and confirmatory factor analysis supported a good model fit for the scale (CFI = 0.96, RMSEA = 0.04 and SRMR = 0.04).

Control variables

Four student variables were included as control variables. Students' *basic cognitive abilities* were assessed by the Figure Analogies subscale of the German version of the Cognitive Ability Test (Thorndike & Hagen, 1993), which is highly related to aspects of general intelligence and represents a parsimonious measure of basic cognitive abilities. Students' *sex* was assessed in the tracking form and was available for all students in the study. *Socioeconomic status* (SES) of students' families was measured by the International Socio-Economic Index of Occupational Status (ISEI; Ganzeboom, de Graaf, Treiman, & de Leeuw, 1992). Parents' occupation was assessed in the parent questionnaire. ISCO codes (ILO, 1990) were assigned to the responses, which were then mapped according to the ISEI. The highest ISEI of both parents (HISEI) was included as an indicator of student SES. Finally, students were asked which language they had learned first in their families (mother tongue) to assess their *first language*. Drawing on research on multilingualism, three language groups were distinguished: (a) the group of monolingual German speakers; (b) the group of multilingual learners (in terms of early simultaneous multilingualism; these learners have acquired an additional language to German as their first language); and (c) the group of learners whose first language is not German (Hesse, Göbel & Hartig, 2008).

The following control variables at the classroom-level were included: First, a dummy variable indicating whether the school offers *bilingual instruction* and, second, the *school type[1]*. Four *school types* were distinguished: *Realschule*, the intermediate level school type; *Hauptschule*, schools offering the least academically demanding track; and *Gesamtschule*, the comprehensive school that offers different tracks. These were included as dummy variables with *Gymnasium*, the most academically demanding school type, as the reference category.

## Multilevel latent change modeling

We applied multilevel modeling (e.g., Hox, 2010; Raudenbush & Bryk, 2002) because we were interested in the effects of teacher's language transfer promotion, a variable measured at the class level, on student learning in the subjects of German and EFL, which were measured at the student level. Achievement in these subjects was assessed at two time points. We applied models for latent change at the classroom level to predict the learning gains in these two subjects, (Steyer, Partchev, & Shanahan, 2000). In these models, each measurement is represented by a latent variable and an additional latent variable is specified to express the relationships between these variables in terms of initial status and change. This implies that the achievement at t2 T2 Y[T2] is specified as an additive function of the achievement at

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[1] The German school system separates students early into different tracks (in most of the German federal states after 4th grade). "Gymnasium" is the academic track, leading to the degree necessary for university entrance. "Realschule" is the intermediate level school type. "Hauptschule" offers the least academically demanding track, also referred to as the vocational track. Finally, the "Gesamtschule" is a comprehensive school type that combines all three tracks. These tracks differ not only in their achievement composition, but also in curricula and pedagogical traditions.

110 t1 Y[T1] and the latent change Y (Y[T2] = Y[T1] + Y). The residual variance of Y[T2] was restricted to zero for identification purposes. At both levels, the relationships between all predictor variables and the relationships between the residuals of all dependent variables were estimated freely. Thereby, the initial status factor captures differences between classrooms at time point 1 and the change factor captures differences between classrooms in change between time points 1 and 2 regarding the language achievement level.

In the next step, we predicted both initial status and change with the teacher's language transfer promotion. Additionally, we included several control variables in the model. At the student level, we measured the effects of the student's basic cognitive abilities, sex, SES and language used at home at T1 and T2. At the class level we controlled for the effects of the track and of bilingual instruction offered in the school on initial status and change in the class-average achievement in EFL. The resulting model is shown in figure 1.
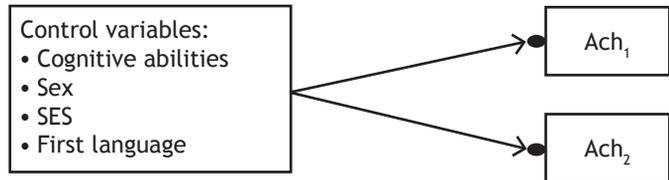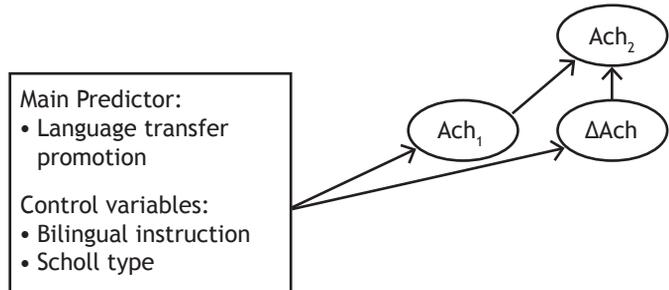

Figure 1 Illustration of the model for predicting the initial status and change in EFL achievement with language transfer promotion (Ach_1, Ach_2: achievement at T1 and T2)

Standardization and centering

To facilitate the interpretation of results, all student-level predictors and outcomes are standardized using their overall mean and variance across students. Continuous class-level predictors (language transfer promotion) were also standardized by using their overall mean and variance across classes. Categorical predictors (bilingual instruction and scholl types) were effect coded. All student-level control variables were further centred on their grand mean as suggested by Lüdtke, Robitzsch, Trautwein and Kunter (2009).

Missing data

The DESI-study applied a multi-matrix booklet design for the achievement tests, resulting in missing values by design, which was addressed by means of multiple imputation (MI; Schafer & Graham, 2002). Multiple imputations were also used to impute missing values for reports on families' socio-economic status. Missing data in the other predictors was addressed by applying the full information maximum likelihood algorithm (FIML; Arbuckle, 1996) in Mplus. A relatively high percentage of missing data was observed for the language transfer promotion variables (22–30%) while the percentage or missing data observed for students' first language was smaller (7%), and no missing data was observed for students' sex, bilingual instruction offered in school or school type (see also Appendix).

Estimation and testing

All models were estimated using robust maximum likelihood estimation (MLR) with the programme Mplus version 7.11 (Muthén & Muthén, 1998–2012).

2.1.3 Results of Study I

Table 1 presents the results from multilevel latent-change models examining associations of language transfer promotion in EFL lessons with the classroom average achievement at the beginning of 9th grade and its change in the course of grade 9.

The results show a positive link of language transfer promotion with EFL-listening comprehension at the beginning of grade 9. However, no association with changes during the course of grade 9 could be noted. In other words, classes in which teachers reported to support language transfer did not advance faster with regard to listening comprehension during the course of grade 9 than other classes. For text reconstruction, neither the initial status nor the change during grade 9 was associated with language transfer promotion. Hence, classes with a higher average achievement in the sub-domain of listening comprehension were more likely to be taught by teachers who reported more promotion of language transfer in EFL, but language transfer promotion was not a precursor to learning gains in the subdomains examined.

Effects of student control-variables also suggested that students with higher basic cognitive abilities and a higher SES, as well as students having German and another language as first languages, showed higher EFL achievement in both sub-domains at the beginning and at the end of grade 9. Effects of students' gender were more ambiguous: Girls appeared to be better at text reconstruction at both points in time, but had slightly lower than average values in listening comprehension at the beginning of grade 9. At class level, we observed effects of the school type and bilingual instruction offered in the school: achievement in EFL at the beginning of grade 9 was higher than average in classrooms of schools offering bilingual instruction as well as in the intermediate school type and lower in the lower school type as well as in comprehensive schools. Changes in EFL achievement were only predicted by school type.

Table 1 Predicting Change in EFL competencies with language transfer promoting instruction

Variables	text reconstruction (B)		listening comprehension (B)	
	T1	T2/ T2–T1[a]	T1	T2/ T2–T1[a]
Level 1: Students				
Basic cognitive abilites	.16**	.18**	.10**	.15**
Sex: female	.07**	.09**	-.03**	-.01
Socio-economic status	.03**	.01	.03**	.04**
FL: other than German	-.05*	-.04*	-.04*	-.02
FL: German and another	.07**	.04	.08**	.04*
R^2	.05	.08	.05	.08
Level 2: Classes				
Intercept	-.28**	.27**	-.23**	.37**
Bilingual instruction	.19**	.02	.24**	.05
Lower school type	-.50**	-.10**	-.60**	-.09*
Intermediate school type	.15**	.00	.28**	-.03
Comprehensive school	-.60**	.08	-.51**	.09
Language transfer promotion	.03	.02	.06*	-.01
R^2	.63	.03	.64	.03

[a] At Level 1, the coefficients refer to students' individual achievement at T2; at Level 2, the coefficients refer to the classes' change in achievement between T1 and T2.
* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed).

2.2 Study II: Exploratory qualitative video analysis of language transfer promoting teaching of selected teachers

2.2.1 Research aim of Study II

With regard to the finding that language transfer promoting perspectives of teachers are correlated with EFL achievement (see Study I), Study II aims at exploring and illustrating language transfer promoting sequences of teaching. The analysis was applied to videographed EFL-lessons in 9th grade classes, which had been taken from the DESI-Video study (Helmke et al., 2008). The leading question is: how do teachers with a high score of self-reported language transfer promoting teaching implement language transfer promotion into their classroom discourse?

2.2.2 Method of Study II

Participants

The following analysis focuses on a selection of EFL-videos, which were recorded in course of the DESI-study. The DESI-video sample consists of a total of 104 videos of EFL-instruction. The videos document 90 minutes of EFL-teaching. Teachers and students who participated in the video study were part of the DESI-sample as

described in chapter 3.1.2 (see Helmke et al., 2008). In order to find out about actual language transfer promoting teaching practice in the EFL-lessons, we selected teachers with a high language transfer promotion score (extreme group selection). The selection presented is a sample of three classes where teachers had a language transfer promotion score that was higher than 85% of the teachers in the complete DESI-sample. For each teacher, video recordings and transcriptions were available for their 90 minutes of EFL-teaching with their 9th grade students. These teachers were instructed to spend 45 minutes of the videographed lesson on a language-oriented topic and 45 minutes on an intercultural topic.

Qualitative analysis of videotaped lessons
The selected videographed classes were analysed by applying interaction analysis according to Krummheuer and Naujok (1999). In their analytical concept, Krummheuer and Naujok (1999) define teaching as a complex progression of actions by different persons – mainly teacher and students. In order to identify language transfer promoting teaching in this interaction, two independent and trained raters (teacher students from the University of Wuppertal; one male, one female) scanned the 3 videos aiming to discover sequences within the videos in which language transfer promoting teaching took place. The selection of sequences was synchronized by communicative validation of the raters. The interaction analysis of the selected sequences was realized independently for each sequence by each rater, according to the systematic of interaction analysis (Krummheuer, 2010): 1. Structuring of the sequence, 2. General description of the sequence, 3. Turn by turn interpretation of the sequence, where every turn is interpreted in at least two ways, 4. Concluding interpretation of the sequence. After the process of analysis, the raters came together for a structured communicative validation phase, in which they compared their interpretations and aggregated their analysis into a common analysis for each selected sequence according to the system of interaction analysis.

2.2.3 Results of Study II
Results of sequence selection
A total of 10 sequences with a potential for language transfer promotion could be selected from the 3 videos. The sequences can be divided into those which actually realized language transfer promotion (n = 3) and those which represented only opportunities for language transfer promotion (n = 7). The language transfer promoting initiatives were brought about by teachers or by students. The following table (Table 2) shows the distribution of the selected sequences within the selected lessons. Sequences were as long as 5–11 turns each. In 3 of the sequences, the teachers took the chance to promote language transfer, whereas in the remaining 7 sequences the teachers did not take advantage of the opportunity to direct the classroom talk to language transfer promotion (see Table 2). The results of further turn-by-turn analysis (common description and concluding interpretation) are presented for the 3 sequences where language transfer promotion was actually put into effect.

Table 2 Overview of sequences with language transfer promotion and opportunities for language transfer promotion in the analysed videos

			Initiation by student	Initiation by teacher
Lesson with language learning focus	Class 1 Topic: British School System	Language transfer promotion		11:40
		Opportunity for language transfer promotion		23:14, 35:27
	Class 2 Topic: Wedding	Language transfer promotion	33:40	
		Opportunity for language transfer promotion	29:13	
	Class 3 Topic: Jobs	Language transfer promotion		
		Opportunity for language transfer promotion	17:39	05:33
Lesson with intercultural focus	Class 1 Topic: British School System	Language transfer promotion		13:34
		Opportunity for language transfer promotion		
	Class 2 Topic: Virtual Wedding	Language transfer promotion		
		Opportunity for language transfer promotion	11:40	
	Class 3 Topic: Job Interview	Language transfer promotion		
		Opportunity for language transfer promotion	08:33	

Note: Numbers indicate the starting point of time within the video.

Turn-by-turn analysis of language transfer promoting sequences

The sequences identified as actually showing language transfer promotion comprise two teacher-initiated cases and one case in which a student initiated it.

The first sequence was detected in an EFL-lesson that dealt with the British school system while having a language learning focus.

> **Class 1: Transcript of the video sequence, first lesson, language-learning topic (time: 11.40–13.33 min.)**
>
> …..
> T More formal. What means more formal? Something is more formal. Clothes (!) are formal or informal. If you go to a wedding, for example, your wear a suit, and this is formal… clothing, right? So what is formal? It is the … same word in German. Absolutely the same. We only spell it different or we read it different. What is… Read it German this *wort* (!), eh, word formal."
> S *Formal*

> T Aha, there you are. *Formal* and formal. Now, an attitude means how you behave. Dominik, so what do you think it means? How you behave?
> S (?)
> T Bitte?
> S The behavior is better
> T The behavior in these schools is more formal, that means, you say better. So what do you think is a, eh, formal behavior? When you meet somebody for example? What is formal, Amagan?
> S I don't know.
> T What is formal? When you meet me at school. Do you meet me formal or are you just saying Hello? Hi Miss Hain?
> S I meet you formal.
> T Do you? No, you never did (laughing). What would be formal? Good morning Mrs. Haimann, how are you? Have you had a nice evening? Right?! So this is formal (laughing)…

The teacher explained the word "formal" by referring to two different examples. First, she described the word in the context of clothing, telling the students that wearing a suit at a wedding is formal and that other clothes, in contrast to that, could be regarded as informal. Additionally, she referred to the German word "formal" by asking a student to read out the English word using German pronunciation. By pointing the students to the phonological differences of the word while telling them that it has the same meaning in both languages, she embedded active language transfer promotion. After that, she continued by reading out the word "formal" in both languages again and, apparently assuming that the meaning of the word became clear, asking a student to associate its meaning with the word "attitudes". However, the student had difficulties with this task. The reason for the problems may, on the one hand, have been due to the way the teacher phrased the question and, on the other, to the students' lack of knowledge regarding the meaning of the German word "formal". Finally, the teacher described "formal behavior" by providing another example referring to formal greetings in the school context. The examples given by the teacher and the comparison of the English and German word were useful, however, the turn-by-turn analysis of this sequence shows that the examples provided did not seem to help the students in understanding the word as they seem to lack previous knowledge regarding the meaning of the German word "formal" and, therefore, were not able to transfer its meaning to the English equivalent.

The second sequence showing language transfer promotion was detected in the same class, dealing with the British school system, but this time in a lesson having an intercultural focus.

Class 1: Transcript of the video sequence, second lesson – intercultural topic (time: 13.40–14.06 min.)

> ……….
> S   And sometimes the parents look for a place in these Independent Schools before their childrens are born
> T   Children

S   Children are born, and then, eh, they go … sometimes go to school when they are only 3 years old

T   Alright. So earlier than that (points to the slide). What do we call that age with 3 when chil..children go to school? So, we don't have it here

Class (silence)

T   You know kindergarden? Ne. This is already the the age………..

Students and teacher were discussing the age at which children start going to school in Great Britain and compared it to its equivalent in Germany. During the discussion, one of the students explained that children in Great Britain started going to school at the age of 3. In response to that, the teacher asked the students what the German institution for children at that age was called, probably hoping for them to say "kindergarten age". As the students did not respond to that question, the teacher introduced the word "kindergarten" without explicitly explaining it, so that the language transfer given in that sequence has to be regarded as implicit. The teacher probably assumed that the students would understand the new word due to its similarity to the German expression. However, an explicit language transfer pro-motion would also have been possible in this situation and could have been realized by explaining the derivation of the English "kindergarten".

The third sequence provides an example of language transfer promotion initi-ated by a student in a lesson with a language learning focus dealing with the topic "wedding".

Class 2: Transcript of the video sequence, lesson with language learning focus (time: min. 33.40–34.05 min.)

S What's "*Affaire*" in English?

T *Affäre* is affair, just eh leave out the e at the end, yeah, affair, to have a, to have, have an affair

S Mit "f"?

T Eh, double f, yeah, a double f. To have an affair. ………………..

While students were working on a task, one of them asked the teacher for the English equivalent of the German word "Affäre". The teacher responded by translating the word into English and pointing out the orthographic differences in comparison to the German word. She also provided possible contexts, in which the word could appear (e.g., having an affair). By translating the word herself, the teacher performed the language transfer, but did not really explain it. In order to help and support the student in finding the right word for herself, the teacher could have referred to the students' previous knowledge of other languages (e.g., French). The teacher's explanation of the word was followed by a further question from the student. She wanted to know whether "affair" was written with one or two "f". The teacher answered, once again providing a context in which the word could appear. The fact that the student had to ask this second question indicates that she did not know the spelling of the word "Affäre" in German. The sequence reveals that language transfer promotion needs proficiency of students in the re-ferred language. If there is a lack of linguistic proficiency, like here in orthography,

then explicit language transfer promotion needs scaffolding in order to be effective in the given situation.

The results of interaction analysis show that language transfer promoting sequences did occur in the videographed teaching of teachers with a high score of language transfer promoting teaching. Two of the three teachers displayed active language transfer promotion in their teaching, realizing short sequences within their lessons, where language transfer to German language took place. However, the seizing of language transfer has been integrated in a rather implicit way, and referring to the German language only. Several opportunities for language transfer within the videos were detected by the raters, which had not been embraced by the teachers.

3 Discussion

Concerning sub domains of student achievement in EFL, regression analyses revealed a positive correlation of language transfer promoting teaching with EFL listening comprehension at the beginning of grade 9. Classes with a higher average achievement in the sub-domain of listening comprehension were more likely to be taught by teachers who reported more promotion of language transfer in EFL. Still, a correlation of language transfer promoting practices with the rise of competences in EFL could not be revealed. Interestingly, the correlation between language transfer promoting teaching did not show up with text reconstruction, but receptive language competence only. This seems to confirm the discussion on language transfer promoting teaching strategies that assumed that they are helpful above all to enhance receptive linguistic competence (e.g. Behr, 2007; Hufeisen & Neuner, 2003; Klein & Stegmann, 2000; Meißner, 2005). The positive correlation could be interpreted as teachers wanting to promote linguistic transfer in those classes where listening comprehension is higher. It could also possibly be the result of more long-term effects of language transfer promotion on student learning – if the same teachers had been teaching English in the same class for a longer period of time, which we don't know. Further research could test longitudinal effects of language transfer over a longer period of time.

The analysis of selected videos revealed that sequences that hint at an attempt to promoting language transfer actually take place in classes of teachers reporting high importance for language transfer promoting teaching. However, these sequences do not display an elaborated language transfer promoting teaching. Language transfer promotion is implemented in a rather implicit way, while referring to German language only. Furthermore, we could observe more opportunities for language transfer promotion, but teachers did not embrace them. Although language teaching is supposed to address multilingualism (Hufeisen, 2006; Krumm, 2005), teachers often do not correspond to this goal (de Angelis, 2011). In addition, it appears that teaching material is not as well prepared for multilingual issues

for how teachers might need it (Marx, 2014). Our results somewhat confirm these findings by showing that language transfer promotion is seldom applied in teaching, and if ever, is not made explicit and not very elaborated – even among teachers who strongly support language transfer promotion in ESL teaching. Teachers do not seem to have a systematic didactical approach to implement it. This might also explain why we did not observe associations of language transfer support with student achievement gains in ESL – even in classrooms of language transfer supporters such strategies might be implemented too seldom and not in skilled enough manner to have a noticeable effect on language learning. In order to help students to understand language-transferring strategies, an explication of the transfer strategy would be useful. Furthermore, the analyzed videos show transfer perspectives to German language only, but as today's classrooms have students with differing linguistic backgrounds, teachers could make use of this resource and address transfer perspectives towards students' L1. Still, it is unknown to what extent the concept of language transfer promoting teaching, as developed in the context of multilingualism theory and didactics, can be adopted to the language teaching of learners with another first language than the lingua franca in school. This perspective should be considered in future research.

To conclude, teachers should be supported to more actively and explicitly incorporate language transfer promotion into their teaching. Therefore, further research on the impact of language transfer promoting instruction is needed as well as research on the systematic training and development of teaching material for an explicit implementation of linguistic transfer perspectives into daily language teaching (Göbel & Vieluf, 2014; Göbel & Schmelter, 2016). An important basis for the construction of trainings and didactical materials would be a qualitative research focus on the processes underlying classroom discourse, like in terms of the way students from different linguistic background respond to language transfer promoting instruction, and on teachers' subjective theories about multilingualism and the implementation of language transfer promoting teaching.

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Appendix

Descriptive Statistics for Variables Used in Study I for the Analysis of EFL Achievement.

Variable	M	SD	% Missing
Sample used for analysis of achievement in EFL			
Student level (*n* = 9,502)			
1. text reconstruction T1	515.16	99.12	0
2. text reconstruction T2	540.34	104.62	0
3. listening comprehension T1	509.86	94.35	0
4. listening comprehension T2	541.48	104.56	0
5. Basic cognitive abilities (KFT)	52.69	9.65	7.55
6. Sex: female	0.53	0.50	0
7. Socio-economic status (HISEI PV)	51.35	16.05	7.77

8. First language: Other than German	0.11	0.32	7.31
9. First language: German and another	0.06	0.24	7.31
Class level (*n* = 381)			
1. Bilingual instruction	0.21	0.41	0
2. Lower school type (Hauptschule)	0.20	0.40	0
3. Intermediate school type (Realschule)	0.34	0.47	0
4. Comprehensive school type (Gesamtschule)	0.04	0.21	0
5. Cognitive composition (mean KFT)	51.82	7.17	0
6. Gender composition (% girls)	0.52	0.17	0
7. Social composition (mean HISEI)	50.57	8.11	0
8. Linguistic composition (% FL: other than German)	0.12	0.14	0
9. Linguistic composition (% FL: German and another)	0.06	0.06	0
10. Language transfer promoting teaching – single items:			
I believe that it is generally helpful to refer to students' native languages and foreign languages during language lessons.	2.27	0.86	24.41
I use the different languages available to the students by referring to their native languages or other foreign languages, for instance by drawing comparisons during my lessons.	2.97	0.94	26.25
I relate to the students' native languages and other foreign language competences during my lessons, by including their lexicon.	2.86	0.90	27.03
I relate to the students' language competences regarding their native and other foreign languages durin my lessons, by relating to pragmatics.	3.05	0.84	29.66

Note: All statistics are based on the original variables before standardization and effect coding.

Multilingualism as a Chance – A Set of Conferences About the Promotion of Multilingualism

The long standard practice of research on language teaching and learning has always assumed that monolingualism was the norm. Nowadays more and more people of the world population are able to communicate in several languages; some of them are even growing up in environments where they know and/or speak two or more languages. Even in the context of this group, multilingualism does not necessarily represent a constant feature, but remains a variable competence that is permanently influenced. Keeping that in mind, the targeted promotion of multilingualism is a very important task and goal because multilingualism is seen as a personal and professional necessity that can help us to be mobile and successful as language and intercultural communication skills are a distinct plus for everybody.

Multilingualism is also a term with open semantics. The term "multilingualism" (sometimes used as a synonym for "bilingualism") can also mean very "different realities". Linguistics describes the different understandings and usages of the term systematically in literature usually by differentiating the term for various contexts/groups: individual, social, and (occasionally also) institutional multilingualism (cf. Council of Europe, 2001, p. 4). The conferences about the promotion of multilingualism are attempts to use the positive potential of experiences with the supporting concepts and didactics being used to develop a greater competence in all three forms/uses of the word "multilingualism". The conferences under the title of "Multilingualism as a Chance" aim to promote language and cultural diversity of people and also foreign language learning in Europe. The sequence of six conferences, which were staged between 2009 and 2015, tried to identify regions in Europe in which people live in environments where more than one language is used in everyday life and learn even more languages in school.

The Department of German as a Foreign and Second Language of the University of Kassel and the Language Institute of the Volkshochschule (VHS) Region Kassel organized the most recent conference of "Multilingualism as a Chance". This conference took place from the 3rd to the 5th of July 2017 in Kassel (Germany). The priority of

this conference was to try to gather contributions for an "atlas of multilingualism" in Europe.

The international consortium that consists of representatives from different universities in Belgium, Finland, Poland, Austria, Switzerland, Germany, and the VHS Region Kassel organized a congress for about 170 participants. After two years of preparation, more than 60 speakers were able to share their expertise.

There were seven sections of the conference divided according to their focus on answering one of the following questions:

1. What are the consequences of the concurrent trends of globalisation and regionalisation for concepts in education?
2. How can we make use of the potential of multilingualism in the different educational systems in Europe?
3. What is the role and how are the dynamics of multilingualism in the multilingual regions of Europe?
4. How do multilingual regions in Europe organize the teaching of the Cognitive Academic Language Proficiency for cultural or lingual minorities?
5. What is the role of the mother tongues of migrants when learning the second languages of their destination countries?
6. What is the role of multilingualism in striving for personal, cultural and social identity?

Three experts held the plenary speeches. The first was Katharina Brizić from the University in Freiburg. She presented data that had been collected together from children, parents and teachers in various primary schools in Vienna and Istanbul. The data showed the memories of the research participants and how they formulate these syntactically and how they perceive the problems they have to solve in the integration on the basis of their culture. Jürgen Trabant, from the Humboldt-University Berlin, held the second plenary talk. The message of his speech was the support of the idea of protecting and promoting many languages in Europe, rather than only promoting and accepting English as the sole common language of Europe. One of the arguments was the idea that through learning languages we learn also about culture and tolerance for others. The Polish speaker Monika Witt from the University in Nysa argued for more international co-operation in the tertiary education of the future language teachers.

I also took part in this conference by presenting a paper about a project based on educational cooperation in the border region of AT-CZ (BIG) in which I am involved. The most important focal points of the project are: the development of guidelines and teaching materials on the topic of "multilingual acquisition" and its evaluation, training of teachers, and cross-border networking of kindergartens, schools, training institutions, and (school) authorities. The main role in the project play kindergartens as institutions where foreign language learning starts for many children (97 kindergartens in Lower Austria and 10 kindergartens in the Czech Republic require the children to learn the language of their neighbouring country). Similarly to other

reports and contributions on this topic (Regional Multilingualism), the main message of the paper was to encourage the efforts being made to support multilingualism for effective communication in border regions (similarly to e.g. German-Polish, Italian-Austrian regions etc.). The participants discussed teaching methods that had been proven to be successful and suggested further ways of instructional support.

Other various research projects were also presented in the Poster Section which enabled discussion on current and frequent topics such as: comparison how learning of bilingual children is supported in schools in different countries (California, Germany, and Poland), what influence of teenager/youth language can be found in the language of bilingual pupils, or how to support the literacy of migrants.

The conference allowed teachers, PhD. students and experts in the area of didactics, research and practice of the development of multilingualism to share their views. The topic of multilingualism was also reflected in new teaching and learning materials (handbooks, textbooks) presented by various publishing houses. The support of multilingualism was articulated as a fundamental general educational strategy in respect to new challenges connected to a growing number of children with other mother tongues and the need of mutual communication across borders. The consortium decided that the next conference with the title "Multilingualism as a Chance" would take place in Klagenfurt in Austria.

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