In Search of Methodology for English Medium Instruction

Tatyana V. Belskaya

Russian Presidential Academy of National Economy and Public Administration, Moscow, Russia
ORCID: https://orcid.org/0000-0002-9282-3439, e-mail: tv.belskaya@igsu.ru

English Medium Instruction (EMI) — teaching/learning of content through English at a university — is currently gaining momentum worldwide, albeit it still lacks consensus regarding conceptualization and efficacious pedagogy and encounters a myriad of challenges at the implementation level. The latter prompted a host of researchers to voice concerns about its possible negative effects on content learning and overall educational quality. Current EMI conceptualization is primarily informed by the applied linguistics perspective. Drawing on the dialectical unity of language (word) and cognition (thought), the article presents recent and fruitful applications of Vygotsky's ideas to foreign language teaching/learning praxis and suggests a symbiosis of two theoretical perspectives — the cultural historical theory and systemic functional linguistics — to inform teaching/learning in English-mediated contexts. The article shifts the focus from the most researched area in the EMI acronym, which is E (dealing with the English language issues), to I (Instruction) to suggest a potential conceptual and pedagogical solution to the EMI conundrum.

Keywords: cultural-historical theory, systemic functional linguistics (SFL), Content and Language Integrated Learning (CLIL), English Medium Instruction (EMI).

Introduction

The increased pace of higher education internationalization over the course of the past 20 years has resulted in proliferation of English medium courses and stirred various debates centered on the nature of the English Medium Instruction (EMI) phenomenon and its most applicable pedagogy. Defined as 'the use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language of the majority of the population is not English' [22, p. 4], the practice has encountered a myriad of implementation challenges at the classroom level which include, but are not limited to, insufficient teacher and student language ability [6; 8; 12; 17; 22; 35; 50; 56], lack of professional development programs for teachers and empirically proven pedagogical principles of organizing teaching/learning process in such settings [4; 12; 16; 50], old transmission models of teaching [8; 23; 29; 37], heterogeneous student language proficiency [3; 17; 56] and most importantly an unwillingness, or rather mere inability, of content teachers to be language teachers [5; 23; 24]. All of the above issues have prompted a host of researchers to voice concerns about the adverse effects of English mediated programs and courses on content

learning, which, in their view, impede deep learning [6; 35; 45].

To tackle these challenges and facilitate EMI's efficacious implementation, various conceptual frameworks and pedagogical approaches were introduced, which primarily stem from the applied linguistics perspective and thus entail diverse forms of language support and development [18; 19; 20; 43; 45; 49; 59]. The main idea of this article, on the other hand, is to problematize the EMI phenomenon from a different vantage point by drawing on the cultural-historical theory (CHT) and present a case for a symbiosis of two theoretical perspectives. To this end, the aim of the article is threefold: 1) to provide an overview of the EMI phenomenon, its current conceptualization and key problem; 2) to cite recent examples of CHT applications in second and content-based language teaching/learning; 3) to present arguments in support of the relevance and wider adoption of CHT to alleviate some of the challenges inherent in EMI.

Origins of the EMI phenomenon

Teaching content through English is not a new phenomenon. Some European universities in the Netherlands

and Sweden boasted English mediated courses as early as the 1950s [9]. One of the first undergraduate programs fully conducted in English was introduced at Maastricht University in 1987 providing a concurrent language support program, which involved a joint course development between a language and a subject expert to boost students' linguistic competence. Thus, the English language acted both as a medium and as an educational goal [72].

The first PhD thesis describing the EMI phenomenon was successfully defended in 1995 and was devoted to the investigation of the Dutch engineering education. This pioneering study outlined the key challenges and research vectors that still remain relevant nowadays. Despite some limitations with regards to the sample size, Vinke [68] confirmed that a medium of instruction affects the process and outcomes of teaching and learning. The surveyed instructors, who were proficient users of English, stated a decreased ability to improvise in English and pointed to a slower pace of lecture delivery. Additionally, student learning outcomes demonstrated that the change of the medium of instruction had a moderately negative effect on content learning. In her conclusions, Vinke [68] pointed out that in order to teach effectively through English, an adequate level of English proficiency should be exhibited by both teachers and students and suggested to introduce language improvement programs for instructors and concurrent language support programs for students.

Indeed, learning subject matter mediated by a foreign and, more importantly, academic language poses a challenge for many university students since many of them are not familiar with the genre of scientific texts, corresponding 'lexicogrammar' or 'different ways of organizing meaning' [32, p. 12]. Recent quantitative studies demonstrated that only academic English proficiency is a statistically significant predictor of successful performance in EMI courses [14; 58; 74]. Unsurprisingly, most current EMI conceptualization frameworks reflect various roles of language support in teaching subject matter though a foreign language starting from pre-sessional, adjunct and finally to fully integrated models.

In fact, the debate about the best way to achieve content and language integration is the key issue and at the heart of most content-based language teaching approaches, including Content and Language Integrated Learning (CLIL) that took off in the European Union in the 1990s and which is often used interchangeably with EMI. Despite a major difference related to the stated goals of these approaches — CLIL is 'a dual-focused education approach in which an additional language is used for the learning and teaching of both content and language' [13, p. 1], whereas the EMI's definition does not contain explicit language goals — both approaches share a lot in common. Currently, most researchers of the English mediated teaching/learning phenomenon view EMI as a CLIL variety and designate CLIL as an umbrella term [2; 36; 41]. EMI is thus located on the content-driven end of the content-based language learning continuum, where content objectives dominate and which is dubbed 'hard' CLIL as opposed to language-driven, 'soft' CLIL approaches [24].

Current EMI methodology: systemic functional linguistics and literacy

Perhaps the strongest argument in support of the compatibility of EMI and CLIL is Halliday's tenet of the inseparability of language development and learning, which is based on his theory of language-based learning. He views human learning as 'linguistic activity' and 'languaging' [32, p. 1] and states that

'...it is a process of making meaning — a **semiotic** process; and the prototypical form of human semiotic is language. Hence the ontogenesis of language is at the same time the ontogenesis of learning' [30, p. 93];

'...it seems appropriate that a general theory of learning, interpreted as "learning through language", should be grounded in whatever is known about "learning language" [30, p. 113].

Based on this theory as well as on the applied linguistics interdisciplinary focus to solve 'real social issues and problems in which language plays an important role' [51, p. 3], a host of researchers advocate the application of linguistic theories to guide the implementation of English-mediated programs. According to Morton and Llinares [51], four sub-domains of applied linguistics have gained momentum in CLIL/EMI research — second language acquisition, systemic functional linguistics (SFL), discourse analysis and sociolinguistics. But it is systemic functional linguistics (SFL) developed by Halliday and informed by his language-based theory of learning that is currently suggested as the most suitable theory to ground EMI [7; 41; 52; 55].

According to SFL, language 1) makes meaning of the world and is 'a way of thinking about the environment' [32, p. 4] (the ideational metafunction); 2) is instrumental in mediating interactions with others and is 'a way of acting in the environment' [32, p. 4] (the interpersonal metafunction); 3) 'serves to assemble the ideational and interpersonal into cohesive and ordered texts' (the textual metafunction) [41, p. 2]. In SFL, the unit of analysis is texts (both oral and written) — 'language functioning in context' [31, p. 3]. Not only does SFL approach the language through linguistic analysis, but it also emphasizes its meaning-making potential and provides tools for literacy development. The notion of literacy associated with language development is particularly pertinent to CLIL/EMI contexts.

According to Halliday, children go to school to acquire educational knowledge, which is associated with reading and writing, as opposed to commonsense knowledge, which is mostly limited to speaking and listening [32]. To a large extent, current tertiary practices also primarily favor knowledge development through reading and writing. These language aspects used to be the original focus of literacy studies [53], while lately the concept of literacy has gradually evolved into a more complex notion of 'the ability to appropriately participate in the communicative practices of a discipline' [1, p. 3]. It is important to distinguish between disciplinary and content area literacy because the former underscores discipline specific ways of 'how discipline experts read and how language is structured in disciplinary texts', not

just general reading strategies [61, p. 14]. For instance, historians identify the author and the source of information and interpret the reading with the historical events in mind, while chemists emphasize various representations to understand the concepts fully, whilst mathematicians focus on discovering possible errors [60]. Hence, to become disciplinary literate, students require explicit guidance from subject experts to discuss exemplar texts and reasoning behind them to produce their own texts as a result [61]. Disciplinary literacy also presupposes mastering various modes of knowledge representations, such as graphs, formulae, diagrams, in other words, it is multimodal [1].

The emphasis on literacy development and grounding CLIL/EMI in SFL have resulted in the development of several pedagogical approaches, namely cognitive discourse functions (CDFs) proposed by Dalton-Puffer [18; 19; 20; 53] and Pluriliteracies Approach to Teaching for Learning devised by a group of international experts (The Graz Group) [49]. However lately, in the quest of identifying 'the best pedagogical practices to teach and learn content and language in integration' [41, p. 4], the attention has been drawn to the cultural-historical theory [25].

Contribution of cultural-historical theory to contemporary research

The cultural-historical theory (CHT) was a response to a crisis in psychology at the turn of the 20th century. Having drawn on Spinoza, Hegel and materialist dialectics, Vygotsky propounded 'internally consistent and monistic' [15, p. 68] cultural-historical theory of development, which investigated the origin and development ('the becoming') of higher psychological functions and set out to investigate the ontogenesis of consciousness and personality development. The former was addressed in his *Thinking and Speech* and the latter resulted in elaborating the concepts of 'critical periods', 'social situation of development', 'neoformation', and 'perezhivanie' [15, p. 58]. Vygotsky's theory is an exemplar of development per se — he commenced with the investigation of mediation, shifted his focus to the study of sign meaning, introduced the concept of sense — 'the unity of affective and intellectual processes' [15, p. 198] and in his last years selected *perezhivanie* as the unit of analysis to study 'consciousness as a complex, developing phenomenon' [15, p. 197].

The cultural-historical theory is holistic because it is 'a system with a precisely defined subject-matter, research methods, a complete set of laws, and a system of basic interconnected concepts and principles' [67, p. 109] and it is also a 'non-classical' psychological theory as it 'aims toward theoretical explanation and experimental investigation of the very processes of mental development of the human being' [63, p. 89]. It is 'non-classical' because 1) it defines development as 'a qualitative reorganization of the system' [63, p. 84] and 2) it 'defines social environment not just as a factor, but as the source of development' [63, p. 84]. 'The interaction between real and ideal forms explains the moving force of development' [63, p. 85]. The interaction itself is mediated by signs, which in the cultural developmental process undergo the transition from being external tools to becoming internal, mental ones [63]. The developmental process of higher psychological functions takes place according to the general genetic law which states that

'...any function in the child's cultural development appears on stage twice, that is, on two planes. It firstly appears on the social plane and then on a psychological plane. Firstly, it appears among people as an inter-psychological category, and then within the child as an intra-psychological category' [69, p. 145 as cited in 63, p. 87].

By having developed an experimental-genetic method for the reconstruction of the process of development of higher mental functions, Vygotsky overcame the theory-praxis gap [15]. Therefore, the cultural-historical theory 'does not belong to the history of psychology only, but rather it is a living and powerful theory which informs contemporary research' [67, p. 107] and provides both a theoretical framework and a coherent method. The genetic research methodology or the genetic method affords the study of higher mental functions in the process of theoretical and experimental reconstruction of the very process of their emergence and development in phylogenesis and ontogenesis [64] and is distinguished by the following three characteristics, according to Veresov [65]: first and foremost, the method is concerned with the analysis of the genesis (the emergence and development) of higher mental functions and not their mature forms; secondly, the genetic method is not preoccupied with visible manifestations of psychological processes, but rather with uncovering true dynamic cause-and-effect and genetic connections which underlie these visible manifestations; finally, the method yields the experimental investigation into psychological processes in such a manner as to reveal the differences in their psychological nature hidden behind their observable (phenotypical) similarities.

Vygotsky's ideas were furthered among others by P.Ya. Galperin and V.V. Davydov. Galperin meticulously described the transformation process ('the system of interdependent characteristics') [27, p. 6] from the external plane and material (materialized) forms present in the social activity to the internal, psychological form. He operationalized 'what actually occurs in the zone of proximal development and the teacher's role of instigating and supporting student learning and development' [28, p. 1]. Complete, but constructed by learners orientation 'reveals the essence of learning' [27, p. 8] and enhances learners' 'agentic capacity to be in control of their own learning' [27, p. 9]. A teacher takes on an active interventionist stance by designing and facilitating students' learning and agency [26; 42], not simply observing 'what happens in the classroom but examine ways to create, manage and control the process of learning' [28, p. 2].

The continuity of the cultural-historical tradition was manifested in the works of Galperin's student, V.V. Davydov. His guiding principle was 'theoretical thinking: a process of taking the learner from the

abstract to the concrete' [27, p. 7]. To that end, he advocated teaching concepts and developing 'generalised understanding of the materials being studied' [27, p. 7] as the first step of a subject matter learning process. To overcome rote learning students need to be exposed to various learning tasks as part of their learning activities, which reproduce 'the micro-cycle of the ascending from the abstract to the concrete' [21, p. 5].

Recent applications of CHT to foreign language pedagogy

Due to its potential in resolving contemporary educational challenges and despite problems associated with translation [47; 66; 67], Vygotsky's ideas became very popular in the field of (second) language learning, where his theory is referred to as sociocultural in the western research literature. Beginning from 2003 an increasing number of language development studies have adopted the sociocultural approach [38] in their pursuit of elaborating coherent pedagogical guidelines. For instance, van Compernolle & Williams [11] ponder on the notion of pedagogy from a sociocultural perspective. They view pedagogical interventions as 'theoretically informed teaching techniques' and as 'part and parcel of further developing the theory' [11, p. 277]. In their expanded view, 'pedagogy is about creating the conditions for, and supporting, development (i.e. internalization of psychological tools), and while this often involves a physically present human mediator, not all aspects of pedagogical activity require it' [11, p. 278].

Negueruela-Azarola et al. [54] write about the 'dialectical connection between social interaction and personal intra-action' and advocate a transformative pedagogy, which 'centers on learners mindfully engaging with psychological tools in conceptually meaningful activities' [54, p. 233]. Their study presents 'a concept-based teaching approach to second language (L2) learning, development and interaction', which employs 'conscious conceptual mediation' and 'meaning-making activities that promote verbal consciousness through communicating with the self' [54, p. 242]. Teachers, who utilize this approach, need to develop 'a brief and coherent' explanation of 'a conceptual category of meaning', create 'a visual representation of the targeted concept' and finally 'the learner needs to engage in social interaction with self that leads to intra-action' [54, p. 243]. If these 'pedagogical sequences' are followed, they result in improved levels of understanding as reported by students.

The challenges of adopting concept-based instruction are reported in Williams et al. [73] and range from aversion to risk to lack of confidence in implementing a new approach and misalignment of curriculum, instruction and assessment, when expert/novice instructors are faced with making a decision about rejecting or adopting new didactics. Conversely, Mahn [46] provides an inspirational account of a practical and efficacious application of the ZPD concept in the classroom discourse, which became known as the Academic Literacy for All (ALA) project. The project was built on the 'guiding principle' elaborated earlier by Hedegaard [33] of 'how the discourse, inquiry, and interaction between students and teachers created zones of proximal development, helping to 'understand how the dialectic relationship between abstract and concrete aspects of a conceptual system can be combined with personal experience to become part of a person's conceptual understanding' [46, p. 253]. The project entailed the creation of the protocol (a sequence of activities), which ensured gradual elevation of the everyday concepts to the level of the academic concepts by means of creating prompts and 'opportunities for dialogic interaction' [46, p. 260], posing questions and providing necessary linguistic input.

Van Compernolle's research [10] also examines the emergence of L2 sociolinguistic competence in classroom interaction from the CHT perspective and utilizes concept-based instruction. The research design employed various tasks: 1) monologic and dialogic verbalized reflections; 2) the use of 'cooperative appropriateness judgment tasks where the tutor assisted them [the students] in using the concepts to solve communicative problems and strategic interaction scenarios 'to bridge the gap between their conscious knowledge of language ... and performance abilities' [10, p. 278].

More recent applications of the cultural-historical/sociocultural approach to foreign language teaching are found in Mandili [48] and Poehner & Infante [57]. In her PhD thesis Mandili [48] investigated conditions for developing English language speech among Saudi Arabian school children. She observed and documented various examples of interactions between ideal and present forms as well as teacher strategies employed in the ZPD (collaboration, interaction) and outlined a host of specific activities conducive to English speech development. She drew on the concepts of the ZPD and interaction of ideal/real forms. On the other hand, the case study presented by Poehner & Infante [57] employed different concepts — those of scientific/everyday concepts and mediation through dialogic interaction — and applied them complementary to develop the conceptual understanding of the English tense-aspect system and regulate second language use by a learner. The proposed Mediated Development (MD-L2) is informed by 1) Galperin's model of step-by-step conceptual knowledge internalization (material form, perceptual form, verbalization, and finally an internal plane) and 2) mediated learning experience as propounded by Feuerstein and which entails a structured approach to learner interaction with a mediator and specific psychological actions such as comparison, labeling, verbalizing to help internalize the meaning. The guiding role of the instructor and the use of psychological tools resulted in the learner's enhanced language functioning.

A recent trend endorsed by a host of researchers [40; 41; 52] is to combine linguistic and cultural historical approaches to effectuate teaching/learning in CLIL/EMI contexts. A pioneering instance of merging sociocultural theory, systemic functional and cognitive linguistics approaches is the study of Hill [34] conducted in the Japanese tertiary CLIL settings. Eleven students were split into experimental and control groups. The former worked

in pairs (one of the students in pairs was a higher-level learner) and jointly constructed the meaning of polysemous, genre-specific lexis. The latter group worked individually. This empirical research interweaved the concepts of the ZPD, everyday and genre-specific concepts with Galperin's theory. In the experimental group the extension from everyday to genre-specific lexical meaning was highlighted, which led to statistically significant development in comprehension, development in usage and enhanced comprehension of genre-specific meanings by lower-level learners working in pairs. The author concludes that the merger of three approaches holds promise for CLIL/EMI pedagogy.

Discussion

In CLIL/EMI tertiary settings students are concurrently inducted into scientific concepts and a new language of science by being exposed to content mediated by discipline-specific genre features of texts and new lexis, the so-called 'apprenticeship into literacy' [71, p. 65]. As adults with a fully developed mother tongue, their initiation into academic language transpires as a downward process (similar to the appropriation of scientific concepts). The academic language they are exposed to is not learnt by 'osmosis' — it needs to be taught [32]. However, in reality subject teachers often simply frontload the vocabulary devoid of context, failing to highlight the relations between the language functions and the content [25].

According to the cultural-historical perspective, language development is not a mechanistic process (focus on form or rigid scaffolding) [62], but rather unfolds contextually and collaboratively, by interweaving new language with students' existing knowledge and expanding its meaning and interconnections in dialogic interaction. Moreover, this appropriation of meaning cannot transpire in every social interaction, but only in the social situation of development, when students are faced with a challenge (drama/collision) [63] and provided with developmentally appropriate tools and expert support [11, 46] and where the so-called 'potentiating' environment propels learners forward [26].

Unfortunately, all too often a content teacher's role in CLIL/EMI contexts is reduced to simply 'professing' knowledge, which is frequently attributed to their insufficient language ability [5]. Language proficiency is undoubtedly crucial for CLIL/EMI subject specialists (as they represent the ideal forms in interaction), but the creation of the social situation of development is even more so. In the classrooms, where in excess of 80% of talk is conducted by subject specialists [50], the opportunities for verbalization and triggering the development process in the ZBR [66] are inherently lost. In fact, in light of the cultural-historical theory, heterogeneous language proficiency of students, which is frequently cited as one of the main hurdles to interaction in EMI learning contexts, can be turned into an opportunity by organizing expert/novice pair and group work tasked with various language and cognitive discoveries, as demonstrated in Hill [34].

Another concerning fact is presented in the study of Johnson & Picciuolo [37], which established that 80% of questions asked during CLIL/EMI classes are simply progression markers (such as ok? right?) rather than being open-ended and referential ones that afford language and concept development as well as make students' thinking transparent [46]. To facilitate meaning construction and sense-making in the ZPD, teachers need at least to learn to ask the 'right' types of questions and at best

'to create a site where it is legitimate for all participants to ask for and be asked for reasons for the claims they make. In this way sense making is made visible and learners are encouraged to explore the implications of their current understandings and test their implications as they engage with public meanings' [26, p. 159].

Furthermore, echoing Davydov's focus on tasks, Edwards suggests the four-quadrant model of task sequencing, which includes two intermediate quadrants affording learners sense-making opportunities in safe and engaging environments to exercise their control over the concepts [26], while Donato calls for engaging academic tasks tying together purposeful language and content outcomes as the task goals [25].

Conclusions

The teaching/learning principles outlined by Vygotsky and further developed by his associates and followers provide a solid methodology to design and guide collaborative learning activities in English-mediated tertiary contexts, while the knowledge of systemic functional linguistics enables teachers 'to select useful texts for instruction and to identify the contextualized language focus of content-based lessons' [25, p. 43]. SFL understands the language needed 'to construct particular discursive practices' [25, p. 35] and 'makes visible the relationship of content to language as a meaning-making resource in a particular disciplinary genre' [25, p. 36].

Moreover, Wells [71] points to the congruence and complementarity of both theories — they both adopt a genetic approach and underscore the use of developmental tools. Halliday was a linguist whose primary focus was studying texts as part of various discourses and mental functions as they are realized externally in speech and writing, hence, his interest in genre and register. Conversely, Vygotsky was a psychologist who was concerned with 'the ways in which language influences mental functions and in the way it functions in inner speech' [71, p. 73]. Both Halliday and Vygotsky believed that teaching/learning is about development and construction of meaning.

Grounded in applied linguistics, current CLIL/EMI conceptualizations primarily address language concerns, where content and language integration is enacted by raising language awareness among teachers and language proficiency of students, and team-teaching alliances of language teaching and content specialists are seen as a way forward [2; 4; 39; 44; 45]. However, a few researchers voice the need 'to use theoretically-informed models that go beyond a focus on language 'only' and un-

derstand content and language as two sides of the same coin' [41, p. 2]. In the same vein, Donato [25] draws on Vygotsky when he posits that to address the challenge of content and language integration means to understand 'that thought is not simply expressed in words; it is realized in them' [70].

Finally, Pecorari [56] has recently referred to EMI as a phenomenon, not a pedagogical approach unlike CLIL, thus underscoring EMI's idiosyncratic nature, whereas Macaro [45] has long referred to its 'elusive' nature citing the lack of consensus on the applicable theory. A reconsideration of EMI conceptualization as a symbiosis of the cultural-historical theory and systemic functional linguistics may hold promise, alleviate some of its most vexing issues and furnish the answer to the question what *in essentia* EMI is.

References

1. Airey J. The Disciplinary Literacy Discussion Matrix: A Heuristic Tool for Initiating Collaboration in Higher Education. *Across the Disciplines*, 2011, no. 8. Available at: http://wac.colostate.edu/atd/clil/airey.cfm (Accessed 27.10.2020).

2. Airey J. EAP, EMI or CLIL? In Hyland K., Shaw P. (eds.), *The Routledge Handbook of English for Academic Purposes*. London: Routledge, 2016, pp. 71—83. DOI:10.4324/9781315657455

3. Ball P., Lindsay D. Language Demands and Support for English-Medium Instruction in Tertiary Education. Learning from a Specific Context. In Doiz A., Lasagabaster D., Manuel Sierra J. (eds.), *English-medium instruction at universities: Global challenges*. Bristol/Buffalo/Toronto: Multilingual Matters, 2013, pp. 44—61. DOI:10.21832/9781847698162-007

4. Banks M. Exploring EMI lecturers' attitudes and needs. In Curado A. (ed.), *LSP in Multi-disciplinary contexts of Teaching and Research. Papers from the 16th International AELFE Conference*, 2018. Vol. 3, pp. 19—26. Available at: https://easychair.org/publications/open/k9B5 (Accessed 27.10.2020).

5. Block D., Moncada-Comas B. English-medium instruction in higher education and the ELT gaze: STEM lecturers' self-positioning as NOT English language teachers. *International Journal of Bilingual Education and Bilingualism,* 2019. DOI:10.1080/13670050.2019.1689917

6. Briggs J., Dearden J., Macaro E. English medium instruction: Comparing teacher beliefs in secondary and tertiary education. *Studies in Second Language Learning and Teaching*, 2018. Vol 8, no. 3. DOI:10.14746/ssllt.2018.8.3.7

7. Byrnes H. Systemic-functional reflections on instructed foreign language acquisition as meaning-making: An introduction. *Linguistics and Education*, 2009. Vol. 20, no. 1, pp. 1—9. DOI:10.1016/j.linged.2009.01.002

8. Chapple J. Teaching in English Is Not Necessarily the Teaching of English. *International Education Studies*, 2015. Vol. 8, no. 3, pp. 1—13. DOI:10.5539/ies.v8n3p1

9. Coleman J.A. English-medium teaching in European higher education. *Language Teaching*, 2006. Vol. 39, no. 1, pp. 1—14. DOI:10.1017/S026144480600320X

10. van Compernolle R.A. The Emergence of Sociolinguistic Competence in L2 Classroom Interaction. In Markee N. (ed.), *The Handbook of Classroom Discourse and Interaction*. John Wiley & Sons, 2015, pp. 265—280. DOI:10.1002/9781118531242.ch16

11. van Compernolle R.A., Williams L. Sociocultural theory and second language pedagogy. *Language Teaching Research*, 2013. Vol. 17, no. 3, pp. 277—281. DOI:10.1177/1362168813482933

12. Cots J. Introducing English-Medium Instruction at the University of Lleida, Spain: Intervention, Beliefs and Practices. In Doiz A., Lasagabaster D., Manuel Sierra J. (eds.), *English medium instruction at universities: Global challenges*. Bristol/Buffalo/Toronto: Multilingual Matters, 2013, pp. 196—210. DOI:10.21832/9781847698162-007

13. Coyle D., Hood P., Marsh D. CLIL: Content and language integrated learning. Cambridge, UK: Cambridge University Press, 2010. 184 p.

14. Curle S., Yuksel D., Soruç A., Altay M. Predictors of English Medium Instruction academic success: English proficiency versus First language medium. *System*, 2020. DOI:10.1016/j.system.2020.102378

15. Dafermos M. Rethinking Cultural-Historical Theory: A Dialectical Perspective to Vygotsky. Singapore: Springer, 2018. 309 p. DOI:10.1007/978-981-13-0191-9

16. Dafouz E., Camacho M., Urquía E. 'Surely they can't do as well': a comparison of business students' academic performance in English-medium and Spanish-as-first-language-medium programmes. *Language and Education*, 2014. Vol. 28, no. 3, pp. 223—236. DOI:10.1080/09500782.2013.808661

17. Dafouz E. English-medium instruction in multilingual university settings-An opportunity for developing language awareness. In Garrett P., Cots J.M. (eds.), *The Routledge handbook of language awareness* (1st edition). Abingdon, UK: Routledge, 2018, pp. 170—185. DOI:10.4324/9781315676494-11

18. Dalton-Puffer C. A construct of cognitive discourse functions for conceptualizing content-language integration in CLIL and multilingual education. *European Journal of Applied Linguistics*, 2013. Vol. 1, no. 2, pp. 216—253. DOI:10.1515/eujal-2013-0011

19. Dalton-Puffer C., Bauer-Marschallinger S., Brückl-Mackey K., Hofmann V., Hopf J., Kröss L., Lechner L. Cognitive discourse functions in Austrian CLIL lessons: towards an empirical validation of the CDF Construct. *European Journal of Applied Linguistics*, 2018. Vol. 6, no. 1, pp. 5—29. DOI:10.1515/eujal-2017-0028

20. Dalton-Puffer C., Bauer-Marschallinger S. Cognitive discourse functions meet historical competences. Towards an integrated pedagogy in CLIL history education. *Journal of Immersion and Content-Based Language Education*, 2019. Vol. 7, no. 1, pp. 31—61. DOI:10.1075/jicb.17017.dal

21. Davydov V.V. Psikhologicheskaya teoriya uchebnoi deyatel'nosti i metodov nachal'nogo obucheniya, osnovannykh na soderzhatel'nom obobshchenii [Psychological theory of learning activity and methods of primary education based on content generalization]. Tomsk: Peleng, 1992. 59 p. (In Russ.).

22. Dearden J. English as a medium of instruction-a growing global phenomenon: Phase 1. London: British Council, 2014. Available at: https://www.britishcouncil.es/sites/default/files/british_council_english_as_a_medium_of_instruction.pdf (Accessed 27.10.2020).

23. Dearden J., Macaro E. Higher education teachers' attitudes towards English medium instruction: a three country comparison. *Studies in Second Language Learning and Teaching*, 2016. Vol. 6, no. 3, pp. 455—486. DOI:10.14746/sllt.2016.6.3.5

24. Dimova S., Kling J. Current Considerations on Integrating Content and Language in Multilingual Universities. In Dimova S., Kling J. (eds.), *Integrating Content and Language in Multilingual Universities*, 2020, pp. 1—12. DOI:10.1007/978-3-030-46947-4_1

25. Donato R. Sociocultural Theory and Content-Based Foreign Language Instruction: Theoretical Insights on the Challenge of Integration. In Cammarata L. (ed.), *Content-based Foreign Language Teaching: Curriculum and Pedagogy for Developing Advanced Thinking and Literacy Skills*. New York: Routledge/Taylor Francis, 2016, pp. 25—50. DOI:10.4324/9780203850497

26. Edwards A. Cultural Historical Theory and Pedagogy: the influence of Vygotsky on the field. In MacLean R. (ed.), *Handbook on Life in Schools and Classrooms: Past, present and future visions*. Dordrecht: Springer, 2017, pp. 153—166. DOI:10.1007/978-981-10-3654-5_10

27. Engeness I., Lund A. Learning for the future: Insights arising from the contributions of Piotr Galperin to the cultural-historical theory. *Learning, Culture and Social Interaction*, 2020. Vol. 25. DOI:10.1016/j.lcsi.2018.11.004

28. Engeness I., Lund A. The contribution of Piotr Galperin to the cultural-historical theory and implications for contemporary educational research and practice. *Learning, Culture and Social Interaction*, 2020. Vol. 25. DOI:10.1016/j.lcsi.2019.01.005

29. Gablasova D. Learning technical words through L1 and L2: Completeness and accuracy of word meanings. *English for Specific Purposes*, 2015. Vol. 39, pp. 62—74. DOI:10.1016/j.esp.2015.04.002

30. Halliday M.A.K. Towards a Language-Based Theory of Learning. *Linguistics and Education*, 1993. Vol. 5, pp. 93—116. DOI:10.1016/0898-5898(93)90026-7

31. Halliday M.A.K., Matthiessen C.M.I.M. Halliday's Introduction to Functional Grammar. London: Routledge, 2013. 808 p. DOI:10.4324/9780203431269

32. Halliday M.A.K. Aspects of Language and Learning. Edited by Webster J.J. Springer-Verlag: Berlin Heidelberg, 2016. 149 p. DOI:10.1007/978-3-662-47821-9

33. Hedegaard M. Cultural minority children's learning within culturally-sensitive classroom teaching. *Pedagogy, Culture and Society*, 2003. Vol. 11, no. 1, pp. 133—152. DOI:10.1080/14681360300200164

34. Hill K. Cognitive Linguistics, Sociocultural Theory and Content and Language Integrated Learning: Researching Development of Polysemous L2 Lexis. *Language and Sociocultural Theory*, 2020. Vol. 6, no. 2, pp. 133—157. DOI:10.1558/lst.35805

35. Hu Guangwei. English medium instruction in higher education: Lessons from China. *The Journal of Asia TEFL*, 2019. Vol. 16, no. 1, pp. 1—11. DOI:10.18823/asiatefl.2019.16.1.1.1

36. Hu Jingjing, Gao Xuesong. Understanding subject teachers' language-related pedagogical practices in content and language integrated learning classrooms. *Language Awareness*, 2020. DOI:10.1080/09658416.2020.1768265

37. Johnson J.H., Picciuolo M. Interaction in spoken academic discourse in an EMI context: the use of questions. *Sixth International Conference on Higher Education Advances, Polytechnic University of Valencia Congress*, June 2020. DOI:10.4995/HEAd20.2020.11018

38. Lantolf J.P., Beckett T. Sociocultural theory and second language acquisition. *Language Teaching*, 2009. Vol. 42, no. 4, pp. 459—475. DOI:10.1017/S0261444809990048

39. Lasagabaster D. Fostering team teaching: Mapping out a research agenda for English-medium instruction at university level. *Language Teaching*, 2018. Vol. 51, no. 3, pp. 400—416. DOI: 10.1017/S0261444818000113

40. Llinares A., Morton T., Whittaker, R. *The Roles of Language in CLIL*. Cambridge University Press, 2012. 352 p.

41. Llinares A., McCabe A. Systemic functional linguistics: the perfect match for content and language integrated learning.

International Journal of Bilingual Education and Bilingualism, 2020. DOI:10.1080/13670050.2019.1635985

42. Lund A., Engeness I. Galperin's legacy and some current challenges of educational research and practice: Agency, technology, and design. *Learning, Culture and Social Interaction*, 2020. DOI:10.1016/j.lcsi.2020.100427

43. Lyster R. Learning and teaching languages through content: A counterbalanced approach. Amsterdam, The Netherlands: John Benjamin's, 2007. 172 p. DOI:10.1075/lllt.18

44. Macaro E., Akincioglu M., Dearden J. English Medium Instruction in universities: A collaborative experiment in Turkey. *Studies in English Language Teaching*, 2016. Vol. 4, no. 1, pp. 51—76. DOI:10.22158/selt.v4n1p51

45. Macaro E. English Medium Instruction: Content and language in policy and practice. Oxford, UK: Oxford University Press, 2018. 336 p.

46. Mahn H. Classroom Discourse and Interaction in the Zone of Proximal Development. In Markee N. (ed.), *The Handbook of Classroom Discourse and Interaction*. John Wiley & Sons, 2015, pp. 250—264. DOI:10.1002/9781118531242.ch15

47. Mahn H., Reierson S.C. Research Methods and Sociocultural Approaches in Second Language Acquisition. *Psychology*, 2012. DOI:10.1002/9781405198431.wbeal1006

48. Mandili W.E. A Cultural-historical Study on English speech Development of Saudi Students through Investigating EFL Teaching Strategies in Primary Schools: Ph.D. Diss. Australia: Monash University, 2019. *Arab World English Journal*, May 2020, pp. 1— 255. DOI:10.24093/awej/th.255

49. Meyer O., Coyle D. Pluriliteracies Teaching for Learning: conceptualizing progression for deeper learning in literacies development. *European Journal of Applied Linguistics*, 2017. Vol. 5, no. 2, pp. 199—222. DOI:10.1515/eujal-2017-0006

50. Moncada-Comas B., Block D. *CLIL*-ised EMI in practice: issues arising. *The Language Learning Journal*, 2019. DOI:10.1080/09571736.2019.1660704

51. Morton T., Llinares A. Content and Language Integrated Learning (CLIL): Type of programme or pedagogical model? In Llinares A., Morton T. (eds.), *Applied Linguistics Perspective on CLIL*. John Benjamin's Publishing Company, 2017, pp. 1—16. DOI:10.1075/lllt.47.01mor

52. Morton T. Afterword: SFL, theoretical pluralism and content and language integration at the levels of curriculum, pedagogy and assessment. *International Journal of Bilingual Education and Bilingualism*, 2020. DOI:10.1080/13670050.2020.1806781

53. Morton T. Cognitive Discourse Functions: A Bridge between Content, Literacy and Language for Teaching and Assessment in CLIL. *CLIL Journal of Innovation and Research in Plurilingual and Pluricultural Education*, 2020. Vol. 3, no. 1, pp. 7—17. DOI:10.5565/rev/clil.33

54. Negueruela-Azarola E., García P., Buescher K. From Interaction to Intra-action: The Internalization of Talk, Gesture, and Concepts in the Second Language Classroom. In Markee N. (ed.), *The Handbook of Classroom Discourse and Interaction*. John Wiley & Sons, 2015, pp. 233—249. DOI:10.1002/9781118531242.ch14

55. Nikula T., Dalton-Puffer C., Llinares A. CLIL classroom discourse: Research from Europe. *Journal of Immersion and Content-Based Language Education*, 2013. Vol. 1, no. 1, pp. 70—100. DOI:10.1075/jicb.1.1.04nik

56. Pecorari D. English Medium Instruction: Disintegrating Language and Content? In Dimova S., KlingJ. (eds.), *Integrating Content and Language in Multilingual Universities. Educational Linguistics*, vol. 44. Springer, Cham, 2020, pp. 15—36. DOI:10.1007/978-3-030-46947-4_2

57. Poehner M., Infante P. Mediated Development and the internalization of psychological tools in second language (L2) education. *Learning, Culture and Social Interaction*, 2019, Vol. 22. DOI:10.1016/j.lcsi.2019.100322

58. Rose H., Curle S., Aizawa I., Thompson G. What drives success in English medium taught courses? The interplay between language proficiency, academic skills, and motivation. *Studies in Higher Education*, 2019. DOI:10.1080/03075079.2019.1590690

59. Schmidt-Unterberger B. The English-medium paradigm: a conceptualisation of English-medium teaching in higher education. *International Journal of Bilingual Education and Bilingualism*, 2018. Vol. 21, no. 5, pp. 527—539. DOI:10.1080/13670050.2018.1491949

60. Shanahan T., Shanahan C. Teaching Disciplinary Literacy to Adolescents: Rethinking Content-Area Literacy. *Harvard Educational Review*, 2008. Vol. 78, no. 1, pp. 40—59. DOI:10.17763/haer.78.1.v62444321p602101

61. Shanahan T., Shanahan C. What is Disciplinary Literacy and Why Does It Matter? *Topics in Language Disorders*, 2012. Vol. 32, no. 1, pp. 7—18. DOI:10.1097/TLD.0b013e318244557a

62. Smagorinsky P. Vygotsky and literacy research: A methodological framework. Boston: Sense, 2011. 346 p. DOI:10.1007/978-94-6091-696-0

63. Veresov N. Introducing Cultural-Historical Theory: Main Concepts and Principles of Genetic Research Methodology. *Kul'turno-istoricheskaya psikhologiya = Cultural-Historical Psychology*, 2010. Vol. 4, pp. 83—90.

64. Veresov N. Experimental-Genetic Method and Psychology of Consciousness: In Search of the Lost (Part One). *Kul'turno-istoricheskaya psikhologiya = Cultural-Historical Psychology*, 2014. Vol. 10, no. 4, pp. 121—130. (In Russ., Abstr. in Engl.).

65. Veresov N. Experimental-Genetic Method and Psychology of Consciousness: In Search of the Lost (Part Two). *Kul'turno-istoricheskaya psikhologiya = Cultural-*

Historical Psychology, 2015. Vol. 11, no. 1, pp. 117—126. (In Russ., Abstr. in Engl.). DOI:10.17759/chp.2015110113

66. Veresov N. ZBR and ZPD: Is there a difference? *Kul'turno-istoricheskaya psikhologiya = Cultural-Historical Psychology*, 2017. Vol. 13, no. 1, pp. 23—36. DOI:10.17759/chp.2017130102

67. Veresov N. Discovering the Great Royal Seal: New Reality of Vygotsky's Legacy. *Kul'turno-istoricheskaya psikhologiya = Cultural-Historical Psychology*, 2020. Vol. 16, no. 2, pp. 107—117. DOI:10.17759/ chp.2020160212

68. Vinke A.A. English as the medium of instruction in Dutch engineering education. Doctoral dissertation: Ph.D. Diss. The Netherlands: Delft University of Technology, 1995. 206 p. Available at: http://resolver.tudelft.nl/uuid:491b55f9-fbf9-4650-a44d-acb9af8412a8 (Accessed 27.10.2020).

69. Vygotskii L.S. Sobranie sochinenii: V 6 t. T. 3 [Collected Works: in 6 vol. Vol. 3]. Moscow: Pedagogika Publ., 1983. 368 p.

70. Vygotsky, L. Thought and Language. Cambridge, MA: The MIT Press, 1996. 392 p.

71. Wells G. The Complementary Contributions of Halliday and Vygotsky to a "Language-Based Theory of Learning". *Linguistics and Education*, 1994. Vol. 6, pp. 41—90. DOI:10.1016/0898-5898(94)90021-3

72. Wilkinson R. English-medium instruction at a Dutch university: Challenges and pitfalls. In Doiz A., Lasagabaster D., Manuel Sierra J. (eds.), *English-medium instruction at universities: Global challenges*. Bristol/Buffalo/Toronto: Multilingual Matters, 2013, pp. 3—24. DOI:10.21832/9781847698162-005

73. Williams L., Abraham L., Negueruela-Azarola E. Using concept-based instruction in the L2 classroom: Perspectives from current and future language teachers. *Language Teaching Research*, 2013. Vol. 17, no. 3, pp. 363—381. DOI:10.1177/13621688113482950

74. Xie W., Curle S. Success in English medium instruction in China: Significant indicators and implications. *International Journal of Bilingual Education and Bilingualism*, 2019. DOI:10.1080/13670050.2019.1703898

В поисках методологии обучения дисциплинам на английском языке в вузе

Т.В. Бельская
Российская академия народного хозяйства и государственной службы
при Президенте РФ (ФГБОУ ВО РАНХиГС),
г. Москва, Российская Федерация
ORCID: https://orcid.org/0000-0002-9282-3439, e-mail: tv.belskaya@igsu.ru

Английский язык как средство обучения — преподавание/изучение научных дисциплин на академическом английском языке в университете — приобретает все большую популярность во всех странах мира, невзирая на отсутствие консенсуса в отношении концептуализации феномена и применимых к нему принципов преподавания, а также несмотря на множество практических вызовов, с которыми сталкиваются преподаватели и студенты в аудиториях. Именно эти вызовы подтолкнули ряд исследователей образования высказать опасения по поводу потенциально негативного влияния англоязычных программ на освоение содержания научной дисциплины и, как следствие, на качество получаемого образования в целом. Разработанные и предлагаемые в настоящее время методологические и педагогические подходы к данному феномену в основном опираются на прикладную лингвистику, что и логично, учитывая, что обучение проходит на иностранном (неродном) для преподавателей и студентов языке. Однако в данной статье, опираясь на диалектическое единство речи (слова) и сознания (мышления), а также недавние примеры успешного применения идей Л.С. Выготского в обучении иностранному языку, мы предлагаем расширить теоретический подход, используя симбиоз двух теорий — культурно-исторической и системно-функциональной лингвистики. Статья смещает акцент с наиболее исследованной темы в изучении феномена — английского языка — на процесс об-

учения с целью предложить потенциальное методологическое и педагогическое решение существующих противоречий.

Information about the authors
Tatyana V. Belskaya, Senior Instructor, Russian Presidential Academy of National Economy and Public Administration, Moscow, Russia, post-graduate student, Doctoral School of Education, National Research University Higher School of Economics, Moscow, Russia, ORCID: https://orcid.org/0000-0002-9282-3439, e-mail: tv.belskaya@igsu.ru

Информация об авторах
Бельская Татьяна Викторовна, старший преподаватель, Российская академия народного хозяйства и государственной службы при Президенте РФ (ФГБОУ ВО РАНХиГС), г. Москва, Российская Федерация, аспирант, Институт образования, Национальный исследовательский университет «Высшая школа экономики» (ФГАОУ ВО НИУ ВШЭ), г. Москва, Российская Федерация, ORCID: https://orcid.org/0000-0002-9282-3439, e-mail: tv.belskaya@igsu.ru