DIGITALLY-ENHANCED PRACTICES AND OPEN PEDAGOGY IN ENGLISH-TAUGHT PROGRAMS

Flexible Learning for Local and Global Settings in Higher Education

Giovanna Carloni

FrancoAngeli
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Lingua, traduzione, didattica

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Collana fondata da *Anna Cardinaletti, Fabrizio Frasnedi, Giuliana Garzone*

La collana intende accogliere contributi dedicati alla descrizione e all'analisi dell'italiano e di altre lingue moderne e antiche, comprese le lingue dei segni, secondo l'ampio ventaglio delle teorie linguistiche e con riferimento alle realizzazioni scritte e orali, offrendo così strumenti di lavoro sia agli specialisti del settore sia agli studenti. Nel quadro dello studio teorico dei meccanismi che governano il funzionamento e l'evoluzione delle lingue, la collana riserva ampio spazio ai contributi dedicati all'analisi del testo tradotto, in quanto luogo di contatto e veicolo privilegiato di interferenza.
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To my family, and especially Giulio and Federico

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INTRODUCTION

Today, higher education is undergoing a shift due to an increase in digitalization worldwide; this trend has been further affected by Covid-19. As a result, higher education needs to refocus its teaching/learning strategies and processes by designing flexible courses catering to students' multifarious post-pandemic needs specific to the new normal. In this light, the present work aims to provide a digitally-enhanced framework suitable for designing and implementing flexible courses in English-Taught Programs (ETPs), where content-specific knowledge is delivered through the medium of English. As a key component of English-Taught Programs, language awareness is especially focused on in this work; in particular, from an open pedagogy perspective, transformative digitally-enhanced language awareness practices are developed using text mining within a Systemic Functional Linguistics (SFL) framework. The prototype of a HyFlex (Hybrid-Flexible) course module suitable for implementing virtual mobility in English-Taught Programs is also developed.

In particular, in the present volume, blended learning, the Hyflex model, pivotal dimensions of digital pedagogy, and the Community of Inquiry framework are introduced; two case studies focusing on different types of blended learning follow. Then, Open Education, Open Pedagogy, and Open Educational Resources are illustrated. Afterwards, CLIL (Content and Language Integrated Learning) and various types of English-Taught Programs are outlined; a Systemic Functional Linguistics approach for CLIL theory and practices is then analyzed. A technology-enhanced SFL-informed embedded disciplinary literacy framework suitable for English-Taught Programs is formulated; on the basis of the framework devised, some activities are created and made available to show how digitally-enhanced SFL-informed content-specific embedded language awareness tasks can be operationalized in local and global online ETP learning environments. Online course design is then examined along with collaborative activities instrumental in fostering effective digitally-enhanced learning. Finally, the prototype of a HyFlex course module for virtual mobility in ETPs, catering to international and domestic students' needs in a post-pandemic context, is devised from an open pedagogy perspective.

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1.
FLEXIBLE LEARNING IN HIGHER EDUCATION

1.1. Flexible digitally-enhanced learning in higher education

Digitalization represents a challenge at tertiary level even though higher education institutions have increasingly resorted to digital practices in recent years (Henderikx and Jansen 2018; Kergel *et al*. 2018; Nichols 2020). Online learning environments also represent a challenge for students who need to adapt to new practices and strategies suitable for online pedagogy (Hampel and Stickler 2015; Stanojević 2015; Cope and Kalantzis 2017; Tabassum 2017). Furthermore, when online learning occurs as a response to a crisis, such as the health crisis caused by Covid-19, new factors come into play and even the terms used to describe digital learning may undergo a shift:

> Considering that the terms used in different countries are derivations of distance education, as a generic term, the remarkable difference between emergency remote education and distance education is that the latter is an option while the former is an obligation. […] Distance education […] is a planned activity and its implementation is grounded in theoretical and practical knowledge which is specific to the field and its nature. On the other hand, emergency remote education is about surviving in a time of crisis with all resources available, including offline and/or online. […] In this regard, it can be argued that, during the Covid-19 pandemic, with similarities and differences (Bozkurt, & Sharma, 2020; Hodges *et al*., 2020; Huang *et al*., 2020; Tzifopoulos, 2020), it was emergency remote education that was applied and it can be further argued that emergency remote education is a branch of distance education as in the case of online learning, e-learning, m-learning, or homeschooling (Bozkurt *et al*. 2020: 2).

Emergency remote education (Bozkurt and Sharma 2020; Golden 2020; Hodges, Moore, Lockee, Trust and Bond 2020), which has become part of digital practices in higher education during the Covid-19 pandemic, is likely to have a deep impact on post-Covid educational practices at tertiary level (Macgilchrist 2020; Selwyn 2020). The Covid-19 lockdown experience has in fact led post-pandemic higher education to rethink educational practices, giving

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priority to flexible digitally-enhanced teaching/learning strategies. Flexibility has emerged as pivotal in post-pandemic education, along with a pedagogy of care and collaborative learning:

> Strategies and practices such as flexibility with course requirements, promptness, clarity of communication, multiple points of contact, personal connections, reciprocity of caring, and students centered design and teaching practices have shown potential in nurturing and maintaining a climate of care online (Robinson *et al*., 2020; Sitzman, & Leners, 2006; Velasquez *et al*., 2013). These entail designing […] [online] education curricula that do not stop at content delivery and assigning tasks for assessment purposes, but that intentionally create spaces for learners to learn together in small groups (social constructivism) and to reimagine digital forms of informal social spaces (sometimes called third places) for connection similar to playgrounds and cafeterias (Bali, 2020b) that help make school enjoyable for students and help build their social and cultural capital (Bozkurt *et al*. 2020: 4).

Due to the sudden pivot to online teaching in higher education worldwide, the pedagogical and technical challenges that non-expert online university instructors are likely to face in online/blended course design and implementation have surfaced, showing the necessity for teaching staff to become familiar with digitally-enhanced course design and teaching strategies (Rapanta *et al*. 2020). Flexible learning is a dimension of post-pandemic course design that instructors need to master; flexibility specifically entails developing blended learning which caters to social distancing in general and to students' multifarious needs in a post-pandemic context in particular. Flexibility also consists in designing blended courses that instructors can easily move fully online, if necessary. Furthermore, the pandemic has highlighted the need to promote equity, access, and inclusion in education; as a result, the adoption of open educational practices and open pedagogy represents another key dimension of post-pandemic higher education (Rapanta *et al*. 2020; Van Allen and Katz 2020). The creation of effective blended learning using open pedagogy is thus likely to play a pivotal role in course design in higher education in the near future.

If designing post-pandemic flexible courses is a challenge for instructors in general, designing flexible courses for English-Taught Programs (ETPs), i.e. courses delivered through the medium of English to students who use English as an additional language, represents an even bigger challenge. While literature has recently been produced on how to pivot online courses in general (Ko and Rossen 2017; Foley McCabe and González-Flores 2017; Darby and Lang 2019; Stein and Graham 2020), hardly any literature has focused on shifting ETPs from face-to-face to blended learning while also catering to digitally-enhanced language awareness. The present work thus aims to provide some guidelines on how to design flexible digitally-enhanced ETP courses, including technology-enhanced language awareness, from an open pedagogy perspective in a post-pandemic context in local and global settings. In particular, since ETPs need to foster content and language development concurrently to promote effective

subject-specific content and literacy development (Schmidt-Unterberger 2018; Coyle 2020), the present work also aims to develop new digitally-enhanced practices suited to integrating subject-specific language awareness into flexible content courses delivered through the medium of English. Furthermore, the prototype of a flexible course module has been devised which is suitable for fostering virtual mobility in ETP courses while also catering to students' multifarious post-pandemic needs. To design a flexibility-driven ETP course module prototype, it was decided to adopt the HyFlex (Hybrid-Flexible) model, which entails the implementation of teaching/learning practices in face-to-face, synchronous, and asynchronous modes (Beatty 2006, 2007, 2019a, 2019b). The HyFlex course module prototype features extensive digitally-enhanced collaborative learning developed within a socio-constructivist framework of knowledge and language development, which views content and language as socially constructed (Vygoskty 1978; Swain 1985, 1995, 2000, 2006; Long 1983, 1996; Swain and Lapkin 1998; Lantolf 2000; Swain and Lapkin 2001; Lantolf and Thorne 2006; Swain and Suzuki 2008).

The present work thus outlines the pathway leading to the design of transformative technology-enhanced language awareness activities for ETPs and the design of the prototype of a HyFlex course module for virtual mobility in ETPs from an open pedagogy perspective. The HyFlex prototype caters to students' needs in a post pandemic context, such as the need to be socially distant and at the same time socially engaged. In particular, the first chapter introduces blended learning, the Hyflex model, key aspects of digital pedagogy, and the Community of Inquiry (CoI) framework, which is a model suited to designing online and blended learning. Two case studies, focusing on different types of blended learning, follow; they aim to identify digitally-enhanced pedagogical practices appropriate for integrating into effective practices in HyFlex ETP courses.

The second chapter focuses on Open Education including the use of text mining tools, available as Open Educational Resources, suitable for implementing distant reading, instrumental in developing transformative pedagogical practices (Moretti 2007, 2011, 2013).

The third chapter introduces the theoretical tenets of CLIL (Content and Language Integrated Learning) and the types of English-Taught Programs available. The use of Anglo-English subject-specific discourses is analyzed from a superdiverse perspective and the use of a Systemic Functional Linguistics (SFL) approach for CLIL theory and practices is examined. A digitally-enhanced SFL-informed embedded disciplinary literacy framework suitable for ETPs is also formulated. Some activities follow using the framework created; they aim to exemplify how instructors can implement technology-enhanced SFL-informed content-specific embedded language awareness in online, blended, and HyFlex ETP courses.

The fourth chapter focuses on internationalization, virtual mobility, and the role of an internationalized curriculum in ETPs. This is followed by the

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illustration of various collaborative learning practices suitable for HyFlex environments. Finally, the prototype of a HyFlex course module for virtual mobility in ETPs is devised as a guideline for ETP instructors; the prototype also caters to international and domestic students' needs in a post-pandemic context.

1.2. Blended learning

After the Covid-19 pandemic, course design entails planning flexible blended learning catering to students' multifarious post-pandemic needs; in particular, in the event of an emergency, instructors need to be able to move the newly designed blended courses fully online with minimal disruption. In post-pandemic higher education, instructors thus have to be able to switch easily and quickly between different delivery modes in order to cater successfully to shifting socio-economic and health-related situations as well as students' context-sensitive needs.

Blended learning consists of a mix of face-to-face and online learning modes where for a certain amount of time participants are located at a distance (Skrypnyk *et al*. 2015: 62). In particular, while Graham's definition of blended learning is rather general – "Blended learning systems combine face-to-face instruction with computer-mediated instruction" (Graham 2006: 5) –, a later definition also focuses on the specific division of the two learning modes, where the online mode is expected to be more prominent in comparison with the face-to-face mode (Allen and Seaman 2010: 5). Various slightly different definitions of blended learning have been provided over time (Osguthorpe and Graham 2003; Garrison and Kanuka 2004; Graham 2006; Garrison and Vaughan 2008; Halverson, Graham, Spring and Drysdale 2012; Moskal, Dziuban and Hartman 2013; Boelens, Van Laer, De Wever and Elen 2015). Likewise, different terms (such as hybrid learning, flexible learning, blended teaching, blended pedagogy, and mixed mode learning) have been used to refer to blended learning (Oliver and Trigwell 2005; McGee and Reis 2012; Bates 2016). It is noteworthy that all the definitions share a common feature, i.e. "blended learning is the organic integration of thoughtfully selected and complementary face-to-face and online approaches" (Garrison and Vaughan 2008: 148); digital pedagogy is thus pivotal for the implementation of effective blends. Overall, due to a more extensive and varied use of educational technologies and online learning, a more inclusive definition of blended learning seems to be preferred nowadays:

> The inclusive conceptualization posits that any combination of face-to-face and online learning could be described as blended learning. […] [C]onsidering the popularity and diverse use of the term, maybe it is more realistic to accept that blended learning has become an umbrella term that describes the use of technology in education (Hrastinski 2019: 567-568).

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In keeping with this definition, blended learning features various formats. Besides a degree of face-to-face classroom instruction, blended formats entail at least one of the following components: technology-enhanced learning (such as online quizzes and/or digital noticeboards) implemented in class; the use of an LMS (Learning Management System) where students can access study materials and carry out activities; and lessons delivered fully online (Bates 2016). In this respect, for example, a recent study has investigated four different types of blends:

1. Blend CLTW (class lectures/tutorials/web-enhanced) had the normal in-class lectures and tutorials but the course was enhanced by online discussions. […]
2. Blend CLOT (class lectures/online tutorials) had in-class lectures with online tutorial classes. […]
3. Blend OLCT (online lectures/in-class tutorials) had asynchronous online lectures with in-class tutorials. […]
4. Blend CLHT (class lectures/hybrid tutorials) had in-class lectures and hybrid online/in-class tutorials (Owston, York and Malhotra 2019).

In blended learning, face-to-face and online activities are pedagogically integrated; furthermore, in a post-pandemic context, it is of paramount importance for newly designed blended courses to be able to transition easily to a fully online mode in case of emergency. In this light, blended learning can be especially useful in fostering flexible access to multimodal resources (such as lecture recordings as well as synchronous and asynchronous activities), catering to students' multifarious needs including their preferred learning methods, and enhancing students' engagement with content, instructors, and peers by means of "student-centred design, social activity and peer collaboration" (Rapanta *et al*. 2020). In blended learning, peer interaction is instrumental in promoting active learning and student agency.

Various instructional strategies and types of interaction are suited to fostering effective content development in blended learning. In this respect, instructors need to perform a range of tasks: organize synchronous teaching activities into chunks and switch frequently between them, design student-centered activities, provide students with timely formative multimodal assessment in a synchronous and asynchronous mode, make students feel their social presence, and make learners feel like members of a community (Bates 2016; Martin, Ritzhaupt, Kumar and Budhrani 2019; Rapanta *et al*. 2020).

Research shows that in blended learning environments, online instructor-delivered lectures and collaborative interactive activities are more effective than asynchronous autonomous learning (Means, Toyama, Murphy and Bakia 2013), although a good blend of both types is advocated (Means, Bakia and Murphy 2014). Furthermore, implementing various types of interaction (such as instructor-student, student-content, and student-student) seems to be beneficial in terms of online knowledge development (Bernard *et al*.

2014). Encouraging interaction in online contexts is pivotal in promoting effective learning processes (Voegele 2014). High level student engagement with content, instructors, and peers is one of the most important dimensions of online learning (Foley McCabe and González-Flores 2017); instructor-student interaction is essential in blended learning (Smith and Hill 2019). Peer-to-peer interaction is another highly valuable online interaction mode that is, however, rather challenging to implement successfully in online environments (Boelens, De Wever and Voet 2017). Increased learner control over learning processes in online learning may be beneficial in fostering more student-centered learning; however, instructors need to be aware that not all students have a degree of self-regulation suitable for handling higher learner control effectively in online learning environments (Owston, York and Murtha 2013; Van Laer and Elen 2017). Studies have identified students' preference for blended learning, which has emerged as empowering students, over face-to-face instruction (Owston, York and Murtha 2013; Owston 2017; Owston and York 2018). Research shows students' positive perceptions of the effectiveness of blended learning in helping them reach course learning outcomes (Lopez-Perez, Perez-Lopez and Rodriguez-Ariza 2011; Bentley, Selassie and Parkin 2012; Owston, York and Murtha 2013; Al Zumor *et al*. 2013; Delaney, McManus and Ng 2015; Bidder *et al*. 2016). Blended learning seems in fact to be suitable for helping students achieve even higher results in terms of learning outcomes than face-to-face instruction (Castaño-Muñoz, Duart and Sancho-Vinuesa 2014). In particular, better learning outcomes are associated with High (>50%) and Medium blends (36% to 40%) rather than with the Low blend (Means, Toyama, Murphy and Bakia 2013; Bernard *et al*. 2014; Owston and York 2018). When designing blended courses, High and Medium blends can thus be especially beneficial. The analysis of students' perceptions of the main features of effective online tutoring highlighted the use of more interactive activities and video-based learning materials as practices useful to motivate them (Gómez-Rey, Barbera and Fernández-Navarro 2018). However, one has to bear in mind that for High and Medium blends to be effective, activities need to foster extensive peer-to-peer and instructor-student interaction (Owston and York 2018).

1.2.1. The HyFlex model

The HyFlex (Hybrid-Flexible) model is a course design model and conceptual framework (Educase 2010) which blends modes in a flexible way (Beatty 2006, 2007, 2019a, 2019b): "Hybrid-flexible course designs […] [are] multi-modal courses which combine online and onground (classroom-based) students" (Beatty 2019b: 6). HyFlex has emerged as a possible blended solution especially suitable for catering to the multifarious needs of university students in a post-pandemic context. Four values, i.e. learner choice, equivalency, reusability and accessibility, inform the HyFlex model (Beatty 2006, 2007):

1. Learner Choice: Provide meaningful alternative participation modes and enable students to choose between participation modes daily, weekly, or topically.
2. Equivalency: Provide learning activities in all participation modes which lead to equivalent learning outcomes.
3. Reusability: Utilize artifacts from learning activities in each participation mode as "learning objects" for all students.
4. Accessibility: Equip students with technology skills and equitable access to all participation modes (Beatty 2019a: 32).

In a HyFlex model, students can select their participation mode autonomously. In a HyFlex course, in fact, students can decide to take the course face-to-face, synchronously or asynchronously through "a 'student-directed hybrid' learning experience" (Beatty 2019b: 6). In HyFlex, students blend modalities on the basis of their needs; learners can choose the mode they prefer daily, weekly or by topic. Students can thus decide to take a week in face-to-face mode, one in a synchronous, and one in an asynchronous mode. By means of "a student-directed multi-modal learning experience" (Beatty 2019a: 31), HyFlex increases the degree of student agency and control over learning. Students, who have to abide by the same deadlines no matter the mode they choose, need to find all the materials and the activities devised for the various modes in the course LMS. Students who attend a HyFlex course synchronously usually follow lectures in streaming and carry out the same activities that in-class students do. It is important for synchronous students to have backchannel tools to be able to interact with peers and instructors live (Miller, Risser and Griffith 2013; Beatty 2006, 2014; Miller and Baham 2018). Students who attend the course asynchronously watch lecture recordings and carry out activities; the activities can be the same that students do in class or slightly different since tailored to the asynchronous mode (Beatty 2006, 2007, 2019a, 2019b; Educase 2010). Group engagement and collaborative learning are important components of HyFlex (Beatty 2006, 2007, 2019a, 2019b; Educase 2010). The design of HyFlex courses thus entails a considerable amount of work on the part of the intructors who need to devise activities suitable for the various modes. Quite importantly, HyFlex courses need to provide students attending classes through different modes with equivalent ways to engage with instructors, content, and peers (Miller and Baham 2018; Beatty 2019a, 2019b).

A HyFlex model seems to satisfy most of the requirements of post-pandemic education: it ensures social distancing since half the class is likely to attend in person and the other half online; it respects students' preferred learning methods by allowing them to choose the mode they feel most comfortable with, and it caters effectively to learners' manifold needs in the aftermath of the pandemic. When HyFlex is available, research shows that students opt mostly for the face-to-face mode (when possible) and marginally less frequently for the asynchronous mode, while the synchronous mode is the least used (Miller and Baham 2018; Malczyk 2019). It is however important to mention

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that students who attend classes synchronously (in comparison with those who attend asynchronously) are more likely to feel themselves members of a learning community thanks to the live interaction with the instructor, which is important from a pedagogy of care perspective (Motta and Bennett 2018). In pre-pandemic contexts, when HyFlex was available, the choice of attendance mode seemed to depend mainly on students' preferred learning styles, though schedule problems were also a factor (Miller and Baham 2018). This implies that students need both to be aware of their sensory preferences and cognitive styles and to possess self-directed study skills (Miller and Baham 2018). In terms of learning effectiveness, no significant differences have occurred across the different modes of attendance (Miller, Risser and Griffiths 2013). On the other hand, from an affective perspective, the added value of HyFlex, which enables students to choose their preferred learning methods, has emerged as an asset (Miller, Risser and Griffiths 2013; Miller and Baham 2018).

A successful HyFlex experience was carried out at KU Leuven through the design of a new type of "'hybrid virtual classroom[…]' […] connecting both on-site students and individual remote students during synchronous teaching and learning" (Raes, Pieters and Bonte 2019: 2). In the newly designed hybrid virtual classroom, synchronous learners were displayed, along with their names, on computer screens at the back of the room, which made peer-to-peer and instructor-student interaction easier (Raes, Pieters and Bonte 2019: 3). In particular, remote learners could switch between different views of the class thanks to "[c]ameras in the virtual classroom record[ing] from 5 different angles" (Raes, Pieters and Bonte 2019: 5). Remote learners could also share their screens with their instructor through a 'Share Button'; the instructor could thus share remote students' screens with the on-site students, thereby increasing interaction (Raes, Pieters and Bonte 2019: 5). Remoter learners could also use the chat to interact with their peers and instructors (Raes, Pieters and Bonte 2019: 5); being able to chat with in-class students and instructors as well as switching between different class views probably contributed to increasing remote students' sense of belonging to a learning community, which is pivotal in online learning. From a pedagogical perspective, various strategies, such as asking questions and implementing online quizzes, were instrumental in getting remote students involved in classroom activities (Raes, Pieters and Bonte 2019: 4-9). In this respect, one instructor reported that "she often had to make her [remote] students aware that they […] [were] visible and that they should behave as if they were in the physical classroom" (Raes, Pieters and Bonte 2019: 7). In this light, online quizzes seem to be especially useful to foster remote students' engagement in HyFlex classes (Raes *et al*. 2020). Research shows that in-class and remote learners are likely to perceive the HyFlex learning process in divergent ways (Raes *et al*. 2019; Zydney *et al*. 2019). In this respect, a study focusing on the HyFlex model implemented at KU Leuven shows that remote learners were usually less instrinsically motivated and less engaged in peer-to-peer interaction than in-class students (Raes *et al*. 2019).

These findings suggest that while planning HyFlex courses, more collaborative activities involving both in-class and remote learners need to be implemented in order for both types of learners to experience active learning and build a learning community.

HyFlex classes were implemented successfully at Purdue University, USA, during the pandemic and in the summer; HyFlex courses will also be available in the post-pandemic context (Kelly 2020). In the HyFlex classes implemented at Purdue University, in-class students and instructors interacted in real time with remote students, connected through Microsoft Teams (Kelly 2020). During class, to make the in-class and remote students feel as members of a learning community, "[o]nline participants were displayed on a large screen at the front of the room" (Kelly 2020), which was conducive to fostering higher interaction between in-class students, remote learners, and instructors.

1.3. Digitally-enhanced learning and reflexive pedagogy

In online and blended learning environments, students need to adapt to practices suitable for enhancing active learning within a socio-constructivist framework (Hampel and Stickler 2015; Stanojević 2015; Selwyn 2016; Cope and Kalantzis 2017; Tabassum 2017). Knowledge and language development are conceived as socially constructed: the result, that is to say, of learners' collaborative knowledge construction informed by social engagement occurring through dialogical interaction in a socio-constructivist learning environment (Hampel and Stickler 2015; Stanojević 2015; Selwyn 2016; Cope and Kalantzis 2017; Tabassum 2017). In this respect, language, as a symbolic culturally-informed tool, mediates the relation between the human mind and the world, thereby foregrounding knowledge production (Vygoskty 1978; Lantolf 2000; Lantolf and Thorne 2006). As a result, knowledge in general and language development in particular are conceived as first socially co-constructed through dialogical interaction and later internalized[1] (Lantolf, Thorne and Poehner 2015: 207). To learn a foreign language within a socio-constructivist framework, besides being provided with comprehensible input

1. "Internalization or the reconstruction on the inner, psychological plane, of socially mediated external forms of goal-oriented activity. […] Internalization, then, assumes that the source of consciuosness resides outside and is in fact anchored in social activity. […] [S]ociocultural theory argues […] that […] human psychological processes do not preexist inside the head waiting to emerge at just the right maturation moment" (Lantolf 2000: 13-26). Inner speech is also conceptualized as socially mediating concept formation: "Languaging may also take the form of private speech, that is, speech for the self, speech that most often occurs covertly, but may surface when an individual needs to take control of his/her mental processes (Lantolf & Thorne, 2006). […] [M]uch of what is observed as social speech also functions as private speech in that the individual's talk is mediating his/her thinking" (Swain and Lapkin 2013: 107).

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(Krashen 1982, 1985), students need to produce comprehensible output and negotiate meaning (Swain 1985, 1995, 2000, 2006; Long 1983, 1996; Swain and Lapkin 1998; Swain and Lapkin 2001; Swain and Suzuki 2008) as well as co-constructing knowledge through dialogical interaction (Vygoskty 1978; Lantolf 2000; Lantolf and Thorne 2006; Lantolf, Thorne and Poehner 2015). In classroom instruction, activities carried out collaboratively in a foreign language also promote language development through languaging, which occurs when learners use the language as a mediating tool for cognitive processes, conducive to content and language learning:

> Languaging is the use of language to mediate cognition and affect. When one languages, one uses language, among other purposes, to focus attention, solve problems and create affect. What is crucial to understand here is that language is not merely a means of communicating what is in one person's head to another person. Rather, language serves to construct the very idea that one is hoping to convey. It is a means by which one comes to know what one does not know. […] Languaging […] constitutes part of the process of formulating the idea; it mediates the formulation of the idea. Indeed, it is when language is used to mediate conceptualization and problem-solving, whether that conceptualization or problem-solving is about language-related issues or science issues or mathematical ones, that languaging takes place (Swain and Lapkin 2013: 105-107).

Digitally-enhanced learning environments implemented within a socio-constructivist framework can be effectively devised in keeping with the theoretical framework of e-learning ecologies where "a learning environment is in some senses like an ecosystem, consisting of the complex interaction of human, textual, discursive, and spatial dynamics" (Cope and Kalantzis 2017: 1). In this context, the distinction between didactic and reflexive paradigms of learning, underpinning Cope and Kalantzis's analytical theoretical framework, is pivotal (2017: 6). For a long time, focusing on individuals' cognition, didactic pedagogy has conceived learning mainly as storing information in the long-term memory by means of guided instruction; as a result, instructors are likely to take control of the learning processes through lecturing and textbooks (Cope and Kalantzis 2017: 9). In addition, from this pedagogical perspective, individual knowledge development is tested by means of summative standardized exams which require students to show their subject-specific knowledge by retrieving content from memory (Cope and Kalantzis 2017: 9). This didactic paradigm of learning is in contrast with the reflexive dialogic learner-centered view of learning which foregrounds Cope and Kalantzis's analytical theoretical framework (2017: 13-40). In keeping with socio-constructivism, reflexive pedagogy conceives knowledge and understanding as socially co-constructed by interactants engaged in dialogical interactions (Vygotsky 1978; Cope and Kalantzis 2017; Tabassum 2017). As a result, students' agency increases noticeably and a shift occurs from monological to dialogical learning processes (Cope and Kalantzis 2017:

10-11). Students' knowledge can thus be made visible and assessed through multimodal collaborative learner-generated artifacts, which entails giving priority to socially- and collaboratively-constructed knowledge in (online) learning environments; as a consequence, epistemic and dynamic processes underpin educational practices which still value facts and definitions but within a wider critical and collaborative context (Cope and Kalantzis 2017: 10-11).

Within a reflexive pedagogical framework, fully online and blended learning may be enhanced through an orchestrated use of digital tools and spaces suitable for implementing "ubiquitous learning, active knowledge production, multimodal knowledge representations, recursive feedback, collaborative intelligence, metacognitive reflection, and differentiated learning" (Cope and Kalantzis 2017: 13). Thanks to ubiquitous learning, the limits of the here and now no longer exist, thus opening up opportunities for new shared content-driven discourse practices and at the same time enabling many-to-many interactions, such as those in social media, which lead to students' active engagement as meaning makers (Cope and Kalantzis 2017: 15-20). Active and collaborative knowledge generation, made visible through learner-generated artifacts, is instrumental in increasing students' agency (Cope and Kalantzis 2017: 21-22). Likewise, learners' critical evaluation of collaborative knowledge construction contributes to the increase of students' agency (Cope and Kalantzis 2017: 24). The emergence of digital tools has triggered the production of multimodal meanings and genres where visualization plays a pivotal role in knowledge construction and representation (Cope and Kalantzis 2017: 25). A shift thus occurs from summative standardized linear assessment, which focuses on individualized cognition and tests content stored in long-term memory, towards formative dialogical multisourced (provided by peers and instructors) recursive assessment, specific to reflexive pedagogy (Cope and Kalantzis 2017: 26-28). A shift towards extensive formative assessment, such as the feedback students are accustomed to while using social media, needs therefore to be promoted in digitally-enhanced environments (Cope and Kalantzis 2017: 26-28). In this respect, educational tools enabling digital peer-evaluation can foster effective recursive formative assessment conducive to the understanding of disciplinary content and reflective thinking (Tabassum 2017: 78-79). At the macro level, in the reflexive paradigm shift, the focus switches from individual cognition to distributed cognition (Hutchins 1995, 2001), from individual intelligence to social collaborative intelligence – such as the social mind formulated by Gee (1992, 2015) –, from memorized knowledge to social and crowdsourced knowledge (Cope and Kalantzis 2017: 33). The development of metacognition may be suitable for promoting students' autonomous management of digitally-enhanced content-specific knowledge development (Cope and Kalantzis 2017: 35). Furthermore, providing students with digital activities, instructors can foster differentiated learning (Cope and Kalantzis 2017: 38) through "a pedagogy of productive diversity" (Kalantzis and Cope 2016: 323).

1.4. The Community of Inquiry framework

In a post-pandemic context, blended learning, especially when implemented through a HyFlex model, needs to focus on students' wellbeing. The design of teaching practices suitable for in-class, synchronous, and asynchronous learning are thus to be developed from a pedagogy of care perspective (Motta and Bennett 2018). In this respect, the Community of Inquiry (CoI) Framework – recognized as an effective model for instructors to make informed decisions about online learning (Castellano-Reyes 2020) – seems eligible to address all the pedagogical dimensions necessary for post-pandemic blended and HyFlex education, including the pedagogy of care.

In keeping with the main tenets of reflexive pedagogy, the Community of Inquiry framework is a socio-constructivist model which theorizes the interaction between cognitive, social, and teaching presence as instrumental in fostering co-construction of knowledge, discovery learning, skills development, and a high degree of engagement (with content, peers, and instructors) in online and blended learning environments (Garrison, Anderson and Archer 2000; Garrison and Arbaugh 2007; Vaughan, Cleveland-Innes and Garrison 2013; Garrison 2016; Garrison 2017). Research shows that students who perceive higher levels of social, teaching, and cognitive presence are likely to achieve better results (Rockinson-Szapkiw, Wendt, Wighting and Nisbet 2016: 28). In particular, while delivering online classes within a CoI framework, instructors need to scaffold students' cognitive presence, consisting in

> the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication. […] [In this respect,] [a]n awareness of the critical and inquiry dynamic is an essential metacognitive ability that encourages students: to approach a problem strategically and actively seek out sources of knowledge, discover biases, sift through the increasingly large quantities of information now available, and formulate and defend their own intellectual positions (Garrison, Anderson and Archer 2000: 89-96).

Activities triggering students' critical thinking and active engagement with content through various dialogical formats can thus foster cognitive presence; in this respect, for example, resource and knowledge building evaluation or critical annotations of teaching materials can enhance students' higher-order thinking skills (Tibbo 2015; Ungerer 2016; Anderson 2017). Well-designed and effective on the fly questions, which also build on students' personal experience, contribute to cognitive presence (Richardson, Sadaf and Ertmer 2012; Anderson 2017). Likewise, it is of paramount importance to enable students to apply the knowledge acquired to test their hypotheses in authentic contexts (Anderson 2017). To enhance cognitive presence in terms of metacognition, instructors can make learning outcomes explicit to students at the beginning of the course, weekly and/or at the start of each class; likewise, instructors can

give students the option to choose between different types of assignments and tools as well as modes in HyFlex courses. Brainstorming activities, explicitly linking prior knowledge to new knowledge, are also important to develop students' metacognition, which is a key component of cognitive presence; in this respect, concept maps can be especially suitable for promoting cognitive presence. Likewise, consistent reflection on learning experiences, for instance through weekly journals, is pivotal to increase students' self-directed learning. Instructors can also share assignment expectations with students, encourage individual reflection and sharing of their ideas/results, promote group discussions and/or debates, enhance the application of newly introduced ideas, and foster analysis, synthesis, and problem solving (English, West and Jackson 2019). In this respect, modelling activities by providing examples of assignments can be a useful practice. In terms of assessment, portfolios seem especially suitable for promoting metacognition and self-directed learning.

The online component of blended learning may entail an increase in transactional distance; this pedagogical construct comprises the psychological and communicative separation of learners and instructors due to distance in location and time (Moore 1997). Increased transactional distance in online learning may cause students to feel isolated (Moore 1997; Shearer and Park 2019). Certain types of dialogue, structure of learning, and levels of student autonomy may reduce transactional distance (Moore 1997). Thus, to counterbalance the increased transactional distance that online learning entails (Moore 1997), a pivotal role can be allocated to social presence, defined as "the ability of participants in the Community of Inquiry to project their personal characteristics into the community, thereby presenting themselves to the other people as 'real' people (i.e. their full personality), through the medium of communication being used" (Garrison, Anderson and Archer 2000: 89). The feeling of isolation, which is often connected to online learning, may thus be prevented by fostering social presence, which is the result of engagement and relationship-building among online participants (Garrison, Anderson and Archer 2000; Garrison and Arbaugh 2007; Guasch, Alvarez and Espasa 2010; Baran, Correia and Thompson 2011; Garrison 2011; McDonald 2014; Bates 2016; Garrison 2017). In particular, social presence includes: emotional expression, through which students can convey their reactions to the learning experience (for instance by means of self-disclosure and humor); open communication, informed by digitally-enhanced exchanges where students can show awareness, respect, support, and recognition of their peers' contributions; group cohesion, which can be enhanced through tasks triggering collaborative learning, where students can perceive the value of their own contribution to the final co-constructed success (Garrison, Anderson and Archer 2000: 99-101). In this context, it is noteworthy that a component of social presence, namely emotional expression which is "the ability and confidence to express feelings related to the learning experience" (Garrison, Anderson and Archer 2000: 99), has recently developed into a fourth type of presence, i.e. emotional presence (Cleveland-Innes and Campbell 2012).

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Emotional presence refers to "the outward expression of emotion, affect, and feeling by individuals and among individuals in a community of inquiry, as they relate to and interact with the learning technology, course content, students, and the instructor" (Cleveland-Innes and Campbell 2012: 283).

Activities fostering social presence can help online learners project their own identities and see each other's true selves online, which enables students to handle successfully the increased transactional distance that online learning entails (Coker 2018; Corfman and Beck 2019). In this respect, the instructor's role in managing communication and group cohesion effectively is pivotal (Vaughan, Cleveland-Innes and Garrison 2013). Synchronous communication, conducive to trust building and cohesive group formation, can prove effective in fostering social presence in online and blended environments (Szeto and Cheng 2016; Anderson 2017). Extensive, consistent, multimodal, and timely formative assessment on the part of the instructor can contribute to the development of the instructor's social presence in particular (Garrison, Anderson and Archer 2000; Garrison and Arbaugh 2007; Vaughan, Cleveland-Innes and Garrison 2013).

Highly scaffolded online collaborative activities, which promote effective student-content and student-student interaction, can help increase participants' social presence while also decreasing transactional distance (Meyer and McNeal 2011; Gómez-Rey, Barbera and Fernández-Navarro 2018). Collaborative activities, pivotal to foster peer-to-peer interaction, are beneficial in enhancing social presence within a socio-constructivist framework since students can co-construct knowledge while recognizing the value of each other's contributions. As a result, students can show mutual awareness and recognition while contributing to the group's trust-building process. Students are more willing to share their ideas and feelings if they feel they are in a safe place where their peers and instructor respect and value their beliefs and opinions. Synchronous videoconferencing and chats can enhance social presence significantly; it is in fact important for students to have the opportunity to interact in real time and to see each other's faces in order to bond. A Q&A (Question and Answer) general forum, where students can ask questions about the course, can also be useful to promote social presence (Darby and Lang 2019: 29). Besides instructors' timely formative and summative assessment, peer assessment can also play a pivotal role in establishing social presence.

To foster social presence, instructors can introduce themselves and outline the course structure before the course starts. For this purpose, instructors can send students a short self-introductory video with a welcoming message, outlining the main features of the course; these relationship-building practices can help students feel more at ease when they start the course (Darby and Lang 2019; Rapanta *et al*. 2020). At the same time, instructors can invite students to introduce themselves to the cohort by uploading their own self-introductory videos and/or posting their profile in a specific way in a dedicated forum.

Social presence is especially important in times of crisis and their aftermath when a pedagogy of care plays a pivotal role in digital teaching/learning

practices. Among the various techniques that instructors can use to foster social presence online from a pedagogy of care perspective, there are activities, such as ice breakers, which enable students to share relevant information about themselves in an engaging way (Anderson 2017). Ice breakers, implemented throughout the course in a synchronous and/or asynchronous mode, can foster social presence effectively since they enable students to get to know each other better. As ice breakers, for example, instructors can ask students to pick the image (among those provided on a slide) that best represents their state of mind and explain (and/or write) why, post a short text or an image or a video on a digital noticeboard to share something funny (such as an anecdote) about themselves, post an image of the country and/or town where they would like to be within a certain time frame and explain (and/or write) why, and participate in speed-meeting (in breakout rooms if the activity is carried out online) where each student meets with another student for three minutes to get to know each other. In this context, it is noteworthy that from a socio-constructivist perspective (Selwyn 2016; Weller 2020), collaborative learning, a strategy suitable for fostering social presence online (Trammell and LaForge 2017; Martin, Ritzhaupt, Kumar and Budhrani 2019), may also be especially useful to foster a pedagogy of care (Bozkurt *et al*. 2020).

Instructors operationalize their teaching presence through course design, facilitation, direction of the community, and assessment (Garrison and Arbaugh 2007; Garrison 2017). They can thus develop their teaching presence by designing, scaffolding, facilitating, and assessing collaborative learning activities (such as problem solving tasks and questions fostering higher-order thinking skills); from a socio-constructivist perspective, besides integrating students' prior knowledge and experience, collaborative activities also need to enhance negotiation of meaning leading to co-construction of knowledge (Morueta, López, Gómez and Harris 2016; Anderson 2017). Effective digitally-enhanced collaborative learning can also foster students' creativity, for example through the selection of digital technologies suitable for multimodal knowledge co-construction (Windham 2007; Conrad and Openo 2018). Meaningful activities, which help students co-construct subject-specific knowledge through critical thinking, are instrumental in promoting teaching presence; it is exactly through these components of teaching presence that cognitive presence can also be successfully promoted (Anderson 2017).

Assessment is a main component of the teaching presence (Garrison, Anderson and Archer 2000; Vaughan, Cleveland-Innes and Garrison 2013; Conrad and Openo 2018). Authenticity and assessment are pivotal in digital collaborative learning (Conrad and Openo 2018). Skills development, which works best when fostered through real-world professional tasks – especially if implemented to carry out summative assessment – (Goff *et al*. 2015; Conrad and Openo 2018), seems to cater to online learner-centered learning effectively (Trammell and LaForge 2017; Martin, Ritzhaupt, Kumar and Budhrani 2019). Within the CoI framework, collaborative learning targeted at skills development,

which entails students' engagement with content and peers through interactive learning and critical thinking, can be especially suited to implementing online learner-centered assessment (Webber 2012: 20). Implementing online assessment through collaborative activities may represent an effective strategy to enhance deep learning (Conrad and Openo 2018: 42-124).

As the CoI model suggests, integrating the instructor's formative feedback into the tasks assigned for assessment is highly beneficial for students (Vaughan, Cleveland-Innes and Garrison 2013; Conrad and Openo 2018). Formative assessment, as previously mentioned, is also instrumental in fostering instructors' social presence since it enhances engagement with learners (Conrad and Openo 2018). Within a socio-constructivist framework valuing engagement and co-construction of knowledge, peer assessment may also be a useful component of online course assessment (Vaughan, Cleveland-Innes and Garrison 2013; Conrad and Openo 2018).

Assessment rubrics are especially suitable in online and blended learning environments, where continuous formative assessment, also targeted at self-regulation development, is pivotal:

> a continuous assessment model must be adopted, which agrees with the cognitive expectation of self-regulation, very important in online learning (Cho and Shen 2013). Self-regulation mainly refers to students' efforts 'to manage learning processes systematically oriented to achieve goals' (Cho and Shen 2013: 290). […] One way of doing so, is to make self-regulation a part of the assessment, for example, through self-reflections or portfolios. Another, more general way is to propose self-paced, asynchronous activities (always within a pre-defined timeline) as part of the students' learning process and indicate clear ways of assessing students' participation (Rapanta *et al*. 2020).

Course assessment rubrics can take into account the value of co-construction of knowledge, fostered for example through forum-based discussions (Pelz 2010; Makos *et al*. 2013). In this respect, instructors can devise rubrics suitable for helping students contribute effectively in the classroom- and/or forum-based discussions; likewise, self-assessment rubrics can be created to help students reflect on their contributions in the classroom- and/or forum-based discussions (Chen, DeNoyelles, Thompson, Sugar and Vargas 2014; Boettcher and Conrad 2016; Darby and Lang 2019). A course assessment rubric can also be especially useful to promote students' self-regulation. Thus, overall, digital pedagogy entails the design of assessment practices suitable for online learning, such as extensive and timely formative assessment, including customized assessment matrixes, featuring the various components and types of assessment (from ungraded and low-stake, i.e. formative, to graded and high-stake, i.e. summative, assessment), catering to students' self-directed learning.

To promote teacher presence, it is important for instructors to continually check students' understanding in various modes (such as through self-graded

quizzes, polls, one-minute free writing etc.) during the course. Instructors need to encourage less active students to contribute to discussion boards and collaborative activities, i.e. they need to check on students consistently to motivate them to be more active in knowledge production and co-construction. Instructors also need to be present in the forums; it is important for students to know that the instructor reads and appreciates their contributions. However, instructors need to be careful when commenting on students' postings. For example, early in the discussion, they can acknowledge students' contributions and invite the other students to contribute; later on, they can confirm the accuracy of students' posts and trigger further critical engagement with content and peers by guiding students to reflect on emerging patterns and pointing to deeper connections with the course topics (Boettcher and Conrad 2016: 167). It is also the instructor's responsibility to wrap up the forum-based discussions, summarizing the insights generated by the group while also acknowledging students' contributions and highlighting links with the upcoming course topics (Boettcher and Conrad 2016: 167). Extensive and timely feedback, i.e. formative assessment, is key in online environments. In this light, at the end of each week, it may be useful for instructors to sum up in a dedicated space the main ideas to have emerged during the weekly lessons; if the numbers of the cohort allow it, the summary may include at least one idea contributed by each student so as to give value to students' contributions. Furthermore, students need to be aware and consistently reminded of how and when they can contact the instructor; for this purpose, for example, the welcoming slide of face-to-face and synchronous classes can display information about office hours and contact details. Instructors also need to make sure that students know how to use the digital tools adopted to carry out the various activities. In fact, for students to accomplish digital activities successfully, it is essential that digital tools should not represent a challenge for them. This is also the reason why instructors should use the same (outsourced) digital tools in various activities and should not use too many new digital tools in a course; likewise, instructors need to use new digital technologies only if they are useful to achieve pedagogical goals.

1.5. Blended learning in higher education: two case studies

To design effective blended courses for the post-pandemic university, an analysis of various digitally-enhanced practices used to implement different types of blended learning may be specially useful. For this reason, two case studies are presented here. The first study investigates students' perceptions of the effectiveness of the digitally-enhanced practices implemented in a blended course long before the global health crisis. In the blend examined, students attended face-to-face classes where digitally-enhanced activities were consistently implemented as in-class and out-of-class collaborative assignments.

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The second study analyzes students' perceptions of the effectiveness of the digitally-enhanced practices used in an emergency remote course implemented in a blended format during the Covid-19 lockdown. Both studies have been carried out with almost the same cohort of students; specifically, the second cohort contains three students more than the first. The findings provide information useful to design HyFlex courses in the post-pandemic university.

1.5.1. Digitally-enhanced learning in a foreign language didactics course

In the fall semester of the 2018-2019 academic year, free digital tools were used to implement technology-enhanced content-specific activities in a 30-hour graduate course on foreign language teaching methodology, taught in English at an Italian university. The course is part of a university project targeted at fostering the implementation of disciplinary courses delivered through the medium of a foreign language (Carloni 2015, 2017, 2018).

It was taught in a teaching/learning space equipped with educational technology, created as part of a university project, where students could use networked tablets to carry out digital activities. In this classroom, there was a smart board working also as a projection display. Working collaboratively on technology-enhanced activities with their tablets, students could send their artifacts to the whiteboard for the entire class to view and discuss. A flexible classroom seating layout enabled students to arrange chairs, each with wheels and provided with a tabletop, to face each other during collaborative activities, which made a comfortable group-work seating arrangement possible; seating configuration was instrumental in fostering collaborative knowledge construction in class. An instructor workstation was also available. During the course, students were provided with a blend of teacher-fronted lectures and teacher-driven and student-centered activities. Students carried out technology-enhanced activities in pairs, groups, and autonomously in and out of class. Digital activities enabled students to engage in disciplinary knowledge building in English through: the co-creation of digital image-rich mind maps, created with Popplet[2]; knowledge co-construction in wikis; knowledge building and sharing in image-rich digital noticeboards, such as Padlet[3]; online image-rich quizzes, created with Kahoot[4]; questionnaires, devised with Google forms[5]; and customized Ted-Ed[6] video-based comprehension activities.

The classroom used for the course was designed in keeping with the technology-enabled spaces experimented within the last two decades through the SCALE-UP (Student-Centered Active Learning Environment with Upside-

2. *popplet.com.*
3. *padlet.com*.
4. *kahoot.com*.
5. *www.google.com/forms/about*.
6. *ed.ted.com*.

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down Pedagogies) model at North Carolina State University (NCSU), the TILE (Transform, Interact, Learn, Engage) model at the University of Iowa, the Active Learning Classrooms (ALC) at the University of Minnesota, and the TEAL (Technology Enhanced Active Learning) classroom at the Massachusetts Institute of Technology (MIT). The various technology-enabled models aimed at increasing students' active learning, collaborative learning, inquiry based learning, and subject-specific knowledge development through digital hands-on tasks implemented in immersive media-rich learning environments.

Studies show positive results for the SCALE-UP (Beichner *et al*. 2007), TILE (Van Horne, Murniati, Gaffney and Jesse 2012), ALC (Whiteside, Brooks and Walker 2010), and TEAL projects (Dori *et al*. 2003; Dori and Belcher 2005; Dory, Hult, Breslow and Belcher 2007). In particular, Belcher experimented TEAL in an undergraduate first-year introductory physics course where students were provided with short lectures, collaborative group work, and hands-on tasks (Dori and Belcher 2005: 252). The use of the various teaching practices was fostered by the newly designed classroom spaces where group-friendly seating arrangements and the availability of personal computers (equipped with customized visualization software) for each group of students enhanced collaborative work (Dori and Belcher 2005: 253). The technology-enabled learning spaces were aimed at fostering active learning through co-construction of knowledge enhanced by means of visualization-based hands-on tasks (Dori and Belcher 2005: 245-246): "Visualization technology can support meaningful learning by enabling the presentation of spatial and dynamic images, which portray relationships between complex concepts" (Dori *et al*. 2003: 45). In the TEAL technology equipped classrooms, teaching practices were developed within a socio-constructivist pedagogical framework which conceives learners as socially-engaged active knowledge co-constructors: "Social constructivist ideas enable one to investigate and support the notion that knowledge is not the property of individuals; rather it happens in a group setting, where knowledge is distributed and shared" (Dori and Belcher 2005: 246-247). Learning spaces which no longer focus on individual students' cognitive abilities but rather on intra-groups' shared cognitive processes need to be devised to enhance shared knowledge constructions (Dori and Belcher 2005: 247). The TEAL model, which promoted active learning especially through visualization-based activities, was rather successful; it fostered in particular a significantly higher level of subject-specific knowledge development (including conceptual understanding), especially in relation to lower-achieving students, and resulted in a marked decrease in student failure rates, which was one of the driving forces behind the project (Dori and Belcher 2005: 267-274).

A study was carried out in the graduate course on foreign language teaching methodology taught at an Italian university. In this context, the blended mode entailed both face-to-face classroom instruction, informed by technology-enhanced learning, and out-of-class digital collaborative activities. The study

aimed to identify students' perceptions concerning the main affordances of the technology-enhanced activities they experienced in the disciplinary course taught in English. In this perspective, it is important to mention that it is the way digital tools are used in instructional settings which informs their educational affordances: "Technology is pedagogically neutral. But it has affordances" (Cope and Kalantzis 2017: 13).

1.5.1.1. Research questions

The present study aimed to investigate the following research question: What aspects of technology-enhanced learning did students find especially effective while learning content-specific knowledge through the medium of English?

1.5.1.2. Participants

The cohort consisted of 17 first-year graduate students attending a 30-hour graduate course on foreign language teaching methodology taught in English at an Italian university.

1.5.1.3. Method

Descriptive research was carried out through a mixed methods approach. In particular, students' perceptions concerning the affordances of technology-enhanced activities – used to foster knowledge development in a disciplinary course taught in English – were collected through an online semi-structured questionnaire administered in class as a metacognitive activity leading to a follow-up lockstep discussion towards the end of the course. The semi-structured questionnaire included closed-ended and open-ended questions which complemented each other; the former used a 5-point Likert scale with two bi-polar values (strongly disagree and strongly agree) at each end as well as questions where various options could be selected. Most open-ended questions were follow up questions to closed-ended questions, which enabled students to explain the choices made in the closed-ended questions from a personal perspective. A comparison of quantitative and qualitative data was thus instrumental in gathering insights based on informants' experience.

1.5.1.4 Results and analysis

The data analyzed in this section come from the semi-structured online questionnaire filled out by 17 students who had attended the course. Note that the data represent the students' subjective opinions rather than the results of a controlled experiment. Furthermore, the sample is too small to yield conclusive results. However, the study may serve to provide initial trend indicators and possibly even lead to the formulation of working hypotheses to be used in future

controlled experiments. The specific results that follow should be regarded as such indicators unless stated otherwise.

Overall, students tended to find technology-enhanced activities rather useful (29,40% mostly agreed and 29,40 agreed) while a smaller percentage was either neutral (35,30%) or disagreed (5,90%). Likewise, most students found digitally-enhanced activities motivating (35,30% strongly agreed and 41,10% agreed) while only 3 out of 17 were neutral (17,60%) and none said they were demotivated by this element of the course. It is interesting to note that motivation is ranked even higher than utility. This could be explained by the suggestion that the creative and interactive aspects of digital activities were rather appealing to students, regardless of the perceived utility; in this respect, creativity thus emerged as an added value of digital learning.

A follow-up open question asked for additional details. Students experienced digital activities as mostly engaging and fun. They also found digital tasks effective in applying newly introduced conceptual knowledge to different contexts, thus experiencing active learning. Most students highlighted active and collaborative learning as key affordances of technology-enabled practices. Another feature valued by the students was learning to use digital technologies, which they identified as an important professional skill. In particular, they described technology-enhanced activities as useful because they found studying only books boring and because digital activities worked as awareness raising, specifically by helping learners reflect on how they construct disciplinary knowledge; metacognition thus seemed to emerge as an added value of digital learning. Furthermore, students stressed that technology-enhanced activities enabled them to remember content more easily because of their interactive and engaging dimensions; content development thus emerged as an affordance of digitally-enhanced collaborative learning. On the other hand, a few students experienced some challenges and found dealing with technical problems unduly distracting and time consuming. A few students also found that having to use digital tools sometimes made them focus more on how to use the tools correctly rather than on how to accomplish content objectives; developing digital skills was thus perceived as time consuming on certain occasions. To prevent such concern, instructors could train students on how to use the tools effectively before using them to accomplish a task.

Overall, students were quite happy with the amount of digital learning provided during the course. Most students thought that technology-enhanced activities were used with the right frequency (64,7% agree and 23,5% strongly agree, while 11,8% were neutral), which suggests that a rather good balance of teacher-fronted and digital hands-on tasks was achieved in the course. In particular, when asked to indicate what they used the digital tools for, students selected creating mind maps and in general working collaboratively as their top choices; to answer the question, learners were free to pick as many options as they wanted among those provided (the 'other' choice was also available). Somewhat lower rankings were assigned to finding information and reading

study materials. Probably the most interesting result is that while collaborative work and individual activities, such as finding information and reading study materials, were ranked the highest, creating digital artifacts ranked the lowest, which may suggest that the process was valued more than the final product here. When asked to indicate the purpose for which they mainly enjoyed using digital tools, students – who were free to pick as many options as they wanted among those provided (the 'other' choice was also available) – claimed that most of all they enjoyed using digital tools to work collaboratively with their peers (76,50%) and when taking digital quizzes (for example using Kahoot) (76,50%), and, second, creating mind maps collaboratively (70,60%). In particular, the main result seems to be that the most frequently used collaborative digital activities, i.e. working collaboratively (70,60%) and creating mind maps collaboratively (75,60%), were also enjoyable, while individual activities such as finding information (52,90%) and reading study materials (52,90%) were frequent but not as much fun.

When carrying out technology-enhanced activities, most students felt quite comfortable. As expected, occasional technological challenges, including poor WiFi connections, caused some students (29,40%) to be less focused on the subject matter and made some (29,40%) feel that precious time was being wasted. Nevertheless, negative responses were rare and 41,20% of the course participants specifically said they experienced none.

Most students were not interested in being more involved in selecting the digital tools used to carry out the activities; only four students (formally 23,50%) wished they had been involved in the selection process. It is easily explained: first of all, students had no knowledge of other tools; secondly, they thought it was the teachers' responsibility to choose the tools, especially those most suitable for students' learning; and thirdly, they thought one of the course objectives was to introduce students to a range of digital tools that they could then use in their professional fields. In a follow-up open question, which asked for additional details, it is noteworthy that students wished they had been given more frequent opportunities to use digital tools on their own, outside of class, to construct knowledge autonomously and show what they had learned individually. It emerges that in the future they should be encouraged, possibly with the help of specific assignments, to do so.

Students ranked the activities they found most motivating; learners were free to pick as many options as they wanted among those provided (the 'other' choice was also available). In particular, students gave top ranking to creating digital mind maps (67,40%), brainstorming ideas with an interactive noticeboard (64,70%), taking online quizzes (67,40%), and negotiating knowledge with their peers (67,40%). In second place came answering questions in a collaborative space (such as wikis) (41,20%) and creating knowledge collaboratively (41,20%). Shared knowledge construction was thus overall perceived as an added value of digital learning, which is in keeping with the results emerging thus far.

To co-create and negotiate content, students appreciated especially the effectiveness of the graphically-enhanced tools implemented, such as mind map programs (58,80% strongly agreed, 11,80% agreed, 23,50% were neutral while 5,90% disagreed) and interactive noticeboards (35,30% strongly agreed, 47,10% agreed, 11,80% were neutral while 5,90% disagreed). Students also perceived interactive image-rich quizzes as suited to fostering conceptual development (41,20% strongly agreed, 35,30% agreed, 17,60% were neutral while 5,90% disagreed). Likewise, students found while-watching activities created with Ted-Ed effective (52,90% strongly agreed, 11,80% agreed, 29,40% were neutral while 5,90% disagreed). Overall, the pedagogical added valued of visualization-based tools seemed to surface consistently in the analysis.

Students found digital learning suitable for promoting the development of active learning (41,20% strongly agreed, 41,20% agreed, 11,80% were neutral while 5,90% disagreed) and at the same time empowering learners (35,30% strongly agreed, 23,50% agreed, 35,30% were neutral while 5,90% disagreed). Most students believed that technology-enhanced activities may foster better quality teaching and learning processes (29,40% strongly agreed, 35,30% agreed, 29,40% were neutral while 5,90% strongly disagreed); likewise, most students held that digital tools enabled instructors to tailor activities to students' needs (29,40% strongly agreed, 47,10% agreed, and 23,50% were neutral). About a third of the students claimed that technology-enhanced activities may promote critical thinking (17,60% strongly agreed, 17,60% agreed, 58,80% were neutral while 5,90% disagreed).

A follow-up open-ended question asked for additional details. Students found digital activities empowering thanks to their collaborative and creative dimensions. Learners thus perceived digital learning as empowering through active learning while at the same time enhancing knowledge understanding and development. By creating user-generated artifacts, students felt they could express their ideas and show their knowledge; they felt as if they were being 'listened to' and 'seen' as active knowledge makers. In particular, students felt that digital artifacts made their knowledge visible, which was probably instrumental in boosting their sense of self-efficacy. This result seems in contrast with what had emerged previously, where students ranked creating digital artifacts rather low; this piece of information may suggest that the focus of the question on the empowerment dimension of digital learning may have led students to re-evaluate digital artifacts as a suitable way to make student-generated knowledge visible for instructors. A few students mentioned challenges, such as being provided with too much visual input and too many concepts; these students were likely to need more structured activities and linear learning.

Students found carrying out digital activities to be innovative above all (76,50%). To a slightly lesser degree, though to a uniform extent, learners found digital learning to be motivating (58,80%), challenging (58,80%), and creative (58,80%). However, some challenges surfaced: for example, a few students

found digital learning difficult (17,60%) while others found the experience either a waste of time (11,80%) or rather negative (5,90%).

When asked to describe a particular aspect of digital activities they enjoyed, students confirmed the data that had emerged thus far. In particular, they valued activities carried out in a creative and engaging way, digitally-enabled and visualization-based co-construction of knowledge – also leading to enhanced negotiation of meaning and the identification of logical connections in content knowledge –, and taking online image-rich quizzes; being challenged also emerged as a positive value. On the other hand, when asked to describe a particular aspect of digital learning that they found especially difficult, a few students felt that they were not allocated enough time to accomplish the tasks effectively in class and that collaborative activities assigned as out-of-class work were rather time consuming.

When asked to describe what they learned by using digital tools, students mentioned in particular the fact that student engagement, collaborative, and individual work became visible to instructors. They also found digital learning fun, easy, innovative, and effective. Using critical thinking to produce knowledge artifacts collaboratively was a practice that students seemed to appreciate along with instructors' feedback on the knowledge produced. In this respect, it is noteworthy that students wished for further feedback from instructors on their digitally-enhanced knowledge products. Furthermore, when asked to mention what they would change in the use of digital tools and why, students advocated the implementation of technology-enhanced activities which would not be possible in paper-based format and the use of the same digital tools to carry out various activities.

1.5.1.5. Conclusion

The results show students' positive attitudes towards the use of technology-enhanced subject-specific activities carried out through the medium of English, although some challenges have emerged. In particular, students identified collaborative, active, and creative learning as the main affordances of digital learning; students also found visualization-based activities effective as well as motivating. Interestingly, the idea that digital tools should be used to create activities which would not be feasible in a paper-based format also emerged as a key dimension which thus needs to be taken into account while devising digital learning.

1.5.2. Emergency remote teaching in a foreign language didactics course

The effectiveness of emergency remote teaching and the various types of blends that transitioning to online teaching has entailed during the Covid-19 pandemic requires investigation to determine how and to what extent these strategies are going to affect post-Covid educational practices (Macgilchrist 2020; Selwyn

2020). The need to redesign courses and teaching practices suitable for post-Covid contexts has emerged as a pivotal dimension in higher education (Cahapay 2020). In this respect, research has been conducted to identify strategies useful to improve emergency remote teaching in response to student and faculty feedback and suggestions (Mondol and Golam Mohiuddin 2020). General guidelines on instructional strategies effective in emergency remote education have also been provided (Bao 2020). The effectiveness of flipped learning implemented during the pandemic has surfaced (Chick *et al*. 2020). The psychological aspect of online learning has been examined, highlighting the necessity for a pedagogy of care (Cao *et al*. 2020). An analysis of students' assumptions and emotions about emergency remote learning has been conducted in the midst of the lockdown, showing a rather positive reaction on the part of the learners (Karalis and Raikou 2020). A negative impact on learning, especially due to connection problems and lack of familiarity with digital tools, has been detected in a mixed group of secondary and tertiary students' perceptions (Owusu-Fordjour, Koomson and Hanson 2020). Hardly any literature has been produced so far on students' perceptions of the effectiveness, in terms of accomplishing course learning outcomes, of the blend of face-to-face instruction and Covid-19 emergency remote teaching. This key area thus needs to be investigated urgently since it happens to be especially useful in designing effective blended courses for the post-pandemic university. The study aims to address this cutting-edge and under-researched pedagogical aspect.

The study has been conducted in a graduate class of foreign language didactics focusing on CLIL (Content and Language Integrated Learning) (Coyle, Hood and Marsh 2010) implemented at an Italian university in the 2020 spring semester. The course was delivered in a blended format due to the Covid-19 pandemic, which forced Italian higher education institutions to transition to online teaching to face a global health emergency. In particular, the course switched from a face-to-face to an online format in early March 2020 due to the Covid-19 lockdown imposed by the Italian government. As a result, students had to adjust to the new online learning environment and digitally-driven pedagogical approaches while dealing with a health and psychological crisis at world level. Students thus had to get used to different content delivery methods, knowledge development, and interaction (Cope and Kalantzis 2017; Tabassum 2017; Hampel 2019).

The emergency remote teaching component of the blended CLIL-focused course was designed within a socio-constructivist framework in keeping with online pedagogy (Hampel 2015; Selwyn 2016; Hampel 2020). In particular, the instructor used digital tools and resources, including video-based materials, available as Open Educational Resources (Green and Brown 2018; Zhadko and Ko 2020) to devise inclusive technology-enhanced interactive and collaborative activities promoting co-construction of knowledge (Pacansky-Brock 2017). In keeping with the European Union policy, the use of Open Educational Resources was instrumental in fostering quality education and inclusion within

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an equity framework (European Commission 2013; Inamorato dos Santos, Punie and Castaño Muñoz 2016; Inamorato dos Santos 2019). Equity emerged in fact as a pivotal dimension of emergency remote education when the digital divide suddenly surfaced locally and globally due to the top-down transition to online learning. The activities designed for the course were aimed at helping students interact with content and peers and at the same time engage in active learning, critical thinking, and co-construction of knowledge (Smith Budhai and Skipwith 2016; Stein and Graham 2020). Furthermore, in keeping with online pedagogy, the instructor increasingly switched the focus from content to skills development and adopted the role of facilitator thereby fostering a more student-centered learning environment (Bates 2016: 29).

When the course pivoted online, tasks related to real world contexts and relevant to learners' professional fields were assigned to learners (Trammell and LaForge 2017; Martin, Ritzhaupt, Kumar and Budhrani 2019). In particular, to accomplish the final course assignment, targeted at developing students' professional skills, learners worked collaboratively online (Whyte 2016) to create CLIL technology-enhanced teaching units suitable for delivering online even in a pandemic context. To accomplish the task while fostering equity and inclusion in education, students used free educational technologies. In response to the pivot, course assessment was partially redesigned to align it with the increasing focus on skills development (Trammell and LaForge 2017; Martin, Ritzhaupt, Kumar and Budhrani 2019). In particular, a higher percentage of the final grade was allocated to the online collaborative construction of CLIL digitally-enhanced teaching units. Pivoting the course online thus entailed the adjustment of some syllabus components; this was explained to learners together with the kind and degree of interaction expected from students engaged in online classes (Ko and Rossen 2017; Trammell and LaForge 2017; Peacock and Cowan 2019).

In emergency remote teaching, synchronous classes were held in Blackboard Collaborate[7] virtual classrooms embedded into Moodle, which is the LSM adopted by the university. During live online classes, the instructor implemented ice breaker activities (Bates 2016; Coker 2018; Martin, Ritzhaupt, Kumar and Budhrani 2019; Peacock and Cowan 2019) to foster student-instructor and student-student interactions in the attempt to promote a sense of belonging. The instructor usually started online classes with interactive activities targeted at activating students' prior knowledge and requiring learners to share their opinions in a visual mode (for example posting their ideas on interactive bulletin boards or using other interactive Open Educational Resources); students thus consistently shared their knowledge and beliefs with their peers in multimodal formats. As online pedagogy suggests, the instructor divided the various activities into 15/20-minute chunks (Bates 2016; Dunlap and Lowenthal 2018;

7. *www.blackboard.com/teaching-learning/collaboration-web-conferencing/blackboard-collaborate*.

Martin, Ritzhaupt, Kumar and Budhrani 2019); 20-minute lectures, supported by PowerPoint slides, thus followed digitally-enhanced brainstorming activities (Bates 2016; Martin, Ritzhaupt, Kumar and Budhrani 2019). After the short lectures, students engaged in some digital interactive activities requiring them first to recall and then to apply the knowledge just presented by the instructor. For this purpose, quizzes and opinion-exchange tasks were created using open educational digital technologies. As home assignments, students created digitally-enhanced activities, such as while-viewing activities with Ted-Ed and vocabulary building activities with Educaplay[8], individually; they shared their technology-enhanced teaching materials with the whole class in a dedicated forum. The activities implemented online were aligned with the course learning outcomes (Biggs 2003). Although emergency remote teaching focused mainly on the development of procedural skills, declarative knowledge development, fostered mostly during face-to-face instruction, was also promoted during live lectures (Means, Bakia and Murphy 2014). As a final assignment, in groups, students created digitally-enhanced CLIL teaching units in English, working collaboratively during live classes and out of class. To devise their digital artifacts, students used not only the free digital tools the instructor presented as suitable for devising CLIL technology-enhanced activities but also the freely available educational technologies they experienced as online learners during synchronous classes.

Within the Community of Inquiry framework, the instructor implemented various teaching strategies to build and scaffold social presence online (Garrison, Anderson and Archer 2000; Garrison and Arbaugh 2007). In particular, the instructor promptly answered students' questions during synchronous classes and posted asynchronous formative feedback to students' contributions in the forums; furthermore, the instructor monitored and provided timely formative assessment when students were engaged with collaborative CLIL materials design. In keeping with the Community of Inquiry model (Garrison, Anderson and Archer 2000), timely written, audio, and visual (student- and/or group-oriented) formative assessment and extensive instructor-student interaction (Feng, Xie and Liu 2017; Smits and Voogt 2017; Trammell and LaForge 2017; Coker 2018; Dunlap and Lowenthal 2018; Martin, Ritzhaupt, Kumar and Budhrani 2019) endeavoured to ensure that students were constantly aware of the instructor's social presence.

As previously mentioned, as the core component of emergency online teaching, the instructor implemented a collaborative learning experience targeted at enhancing students' CLIL materials design skills development. Collaborative learning and skills development were integrated in keeping with the CoI model: "the heart of a community of inquiry: It speaks to the ideals of a collaborative constructivist educational environment and how we create and sustain purposeful learning activities" (Vaughan, Cleveland-Innes and Garrison 2013: 29). The CoI model expects learners to take more responsibility for

8. *www.educaplay.com*.

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their learning process (Vaughan, Cleveland-Innes and Garrison 2013), which is a key component of collaborative learning. In the pivoted course, digital tools were used as mediating artifacts (Hampel 2020) targeted at scaffolding student-centered interaction-based learning processes in general and students' collaborative creation of digitally-enabled artifacts in particular. Building on the previous case study, which highlighted the necessity to train students to use digital tools effectively prior to asking them to use the tools for complex collaborative tasks, learners created individually some technology-enhanced activities targeted at helping them learn how to use specific free digital tools for later use while collaboratively creating CLIL teaching units in English. To accomplish the collaborative task, students worked online in groups of six or seven to create CLIL digitally-enhanced interactive teaching units in English. They wrote a CLIL lesson plan first and created a CLIL digitally-enhanced unit afterwards, using a wide array of free educational technologies. The technology-enhanced interactive collaborative task was scheduled for the second part of the course, which took place online, when students had been introduced to the main CLIL theoretical concepts. To accomplish the task, students were in fact expected to apply the CLIL disciplinary knowledge introduced in the first part of the course. In keeping with Bloom's revised taxonomy, students thus engaged in critical thinking by creating CLIL digitally-enhanced teaching materials (Anderson and Krathwohl 2001). Since students knew each other quite well by the time they engaged in the collaborative task, the instructor opted for group self-selection: "Learners will engage more eagerly and consistently in activities that require organizational effort – as compared to solitary activities – when they have some connection with other learners" (Conrad and Openo 2018: 130). To help students carry out the complex collaborative task, the instructor provided them with highly scaffolded guidelines. While working collaboratively, students received consistent synchronous, asynchronous, written, audio, and video feedback from the instructor: "Formative feedback is particularly effective in creating and sustaining social presence" (Vaughan, Cleveland-Innes and Garrison 2013: 33). Furthermore, upon completion of the CLIL units, the instructor provided each group with customized group feedback. As a result, all the groups further modified their teaching materials and experienced increased professional development: "a constructivist approach […] views assessment and evaluation, and the tools that frame them, not only as opportunities for interaction among learners and instructors, or between learners, but also for increased growth and learning" (Conrad and Openo 2018: 104). A high percentage of the course summative assessment was assigned to the online collaborative task:

> We know from the literature on deep learning that educational context, and particularly assessment, has a significant impact on outcomes (Cleveland-Innes & Emes, 2005). Graded activities that require collaboration and constructivist thought will encourage students to work to this end. The activities include group projects (Vaughan, Cleveland-Innes and Garrison 2013: 33).

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In general, in terms of design features, in the blended modality, most activities provided were class-paced while home assignments were self-paced (Means, Bakia and Murphy 2014). Likewise, most activities were carried out synchronously and only a few asynchronously (Means, Bakia and Murphy 2014). Various pedagogical practices were implemented to different extents: expository (through instructors' lectures and reading materials), practice environment (through the creation of digital artifacts), exploratory (through the exploration of various resources), and collaborative (through collaborative CLIL teaching unit design) (Means, Bakia and Murphy 2014). The instructor provided consistent scaffolding to students' learning processes (Means, Bakia and Murphy 2014). The students' role included to varying degrees listening to the instructor's lectures, answering the instructor's questions, exploring resources and digital games, problem solving, and collaborating with their peers (Means, Bakia and Murphy 2014). The feedback was mainly provided by the instructor while automated feedback was used to a very low degree (Means, Bakia and Murphy 2014). The instructor's formative assessment was extensive during these times of crisis (Bozkurt *et al*. 2020: 5) because it was especially useful to monitor students' learning processes while they were engaged with new learning practices and models (Liberman, Levin and Luna-Bazaldua 2020).

Due to the move to the online environment as a result of the Covid-19 lockdown, the students attending the course faced the challenge of adapting to the new pivoted online learning space, the digitally-driven pedagogical approaches adopted, the content delivery methods implemented, and online knowledge development (Cope and Kalantzis 2017; Hampel 2019). Furthermore, due to the shift in instructional mode in response to the Covid-19 disruption, students engaged for the first time in online collaborative learning. In this light, the present study carries out a qualitative analysis of students' perceptions of the effectiveness of the teaching/learning practices used to reach the course learning outcomes.

1.5.2.1. Research questions

The study aimed to answer the following research question: to what extent did students perceive the effectiveness of the blend of face-to-face instruction and emergency remote teaching to accomplish the course learning outcomes?

1.5.2.2. Participants

The cohort for the present study consists of twenty graduate students attending a 30-hour applied linguistics course focusing on the content-specific knowledge and skills necessary to implement a CLIL learning environment. The course, which started with face-to-face classroom instruction, switched to an online format due to the Covid-19 lockdown imposed by the Italian government

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in early March 2020. As a result, about 25% of the course was delivered face-to-face while the remaining 75% was taught online.

1.5.2.3. Method

Descriptive research was carried out through a mixed methods approach. In particular, the data for the present study were collected through a semi-structured online questionnaire that students filled in at the end of the course. The semi-structured questionnaire included closed-ended and open-ended questions; the closed-ended questions used a 5-point Likert scale with two bi-polar values (strongly disagree and strongly agree) at each end as well as questions where various options could be selected. The two types of questions, namely closed-ended and open-ended questions, complemented each other; most open-ended questions were follow up questions to closed-ended questions, which enabled students to explain the choices made in the closed-ended questions from a personal perspective. A comparison of quantitative and qualitative data was thus instrumental in gathering insights based on informants' experience.

1.5.2.4. Results and analysis

As previously mentioned, while transitioning from face-to-face to online learning, the course increased its focus on skills development. While moving online, students were introduced to the pedagogical paradigm shift which occurred in course delivery and made aware how the course assessment had been aligned with the increased focus on skills development. The data analyzed in this section come from the semi-structured online questionnaire filled in by the students at the end of the course. The data represent the learners' subjective opinions rather than results of a controlled experiment. Furthermore, the sample is too small to yield conclusive results; in this light, the study may serve to provide initial trend indicators and possibly even lead to the formulation of working hypotheses to be tested in future controlled experiments. The results provided below need thus to be regarded as such indicators unless otherwise stated.

Most students (65%) attended all classes, 30% of students attended 75% of classes, and the rest of the students attended 50% of classes. In particular, most students (60% strongly agreed and 35% agreed) claimed that they felt they were able to select the appropriate content to devise CLIL lessons. This is a rather positive result since choosing suitable input is quite a challenge: to achieve this objective, students need in fact to be able to take into account learners' prior knowledge and language proficiency along with the syntactical complexity of the input. Likewise, the majority of students held that they felt comfortable writing content (70% strongly agreed and 25% agreed) and language objectives (55% strongly agreed, 35% agreed and 10% were neutral). These data represent a fairly positive result since devising subject-specific learning

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outcomes entails being able to identify the types and levels of knowledge and cognitive processes (Anderson and Krathwohl 2001) with which students need to engage in a CLIL lesson. Likewise, devising suitable language functions implies being able to identify the speech acts students need to produce in the foreign language to accomplish the disciplinary learning objectives of a CLIL unit. Furthermore, most students felt they had developed the skills necessary to create activities targeted at activating students' prior knowledge (60% strongly agreed and 40% agreed) and, almost to the same extent, learners felt they could create activities introducing key vocabulary items quite easily (60% strongly agreed, 30% agreed, and 10% were neutral). While students seem to have found it slightly more challenging to develop the skills necessary to create activities aimed at fostering hypothesis making (50% strongly agreed and 45% agreed that they were able to create this kind of activities), they felt quite comfortable when creating while-viewing activities (65% strongly agreed and 35% agreed). In this respect, it is noteworthy that before engaging in the collaborative CLIL unit design, students had experimented with the creation of digitally-enhanced brainstorming activities, technology-enhanced while-viewing activities, and with digital activities targeted at introducing new vocabulary items. They had received extensive written, audio, and video-based formative assessment on these activities in the forum. Their prior active engagement with the design of these digital activities can help to explain why students perceived a rather high degree of skills development in this respect. In particular, students claimed that they enjoyed and learned a lot, and exactly to the same degree, by creating these digitally-enabled activities (75% strongly agreed and 25% agreed). Although to different degrees, most students tried out the digital activities created by their peers, which was not a course requirement. In particular, 15% of the class tried out all the activities, half the class carried out 75% of the activities, 25% of the class tried out 50% of the activities, and 10% of the class carried out 25% of the activities. Some students also wrote that if they had had a better internet connection, they would have tried out even more activities. In a follow up question, students specifically claimed that carrying out their peers' digital activities enabled them to learn how to: improve their own activities, design tasks catering to various learning styles, foresee learners' possible problems while engaged in digital activities, be more creative materials designers, experiment with digital tools without being afraid of making mistakes, and identify different ways in which digital activities can be envisaged and devised.

The instructor's formative assessment, provided to students while they experimented with various kinds of digital activity design (such as technology-enhanced while-viewing, vocabulary building and prior knowledge activation activities), was evaluated as highly effective by most students (80% strongly agreed and 20% agreed). Formative assessment thus seems to have played a key role in making students feel comfortable experimenting online. In a follow up question focusing on the instructor's feedback in general and during the

collaborative work in particular, the instructor's timely feedback emerged as a key asset of the students' online learning experience, which suggests that learners perceived the instructor's social presence as pivotal to making their online learning effective and valuable.

Students felt confident that they had developed the skills necessary to devise activities aimed at fostering learners' deeper understanding of the input provided (40% strongly agreed, 45% agreed, and 15% were neutral). On the other hand, students still found creating language awareness activities rather challenging; in particular, they felt they were able to devise them to varying degrees (25% strongly agreed, 65% agreed, and 10% were neutral). On the other hand, students found creating activities fostering students' self-evaluation slightly easier (35% strongly agreed, 55% agreed, and 20% were neutral).

Quite interestingly, students felt rather confident when creating activities fostering co-construction of knowledge (20% strongly agreed, 65% agreed, and 21% were neutral), which represents one of the main challenges in CLIL activity design. Furthermore, they felt confident to various degrees when devising activities fostering dialogical interaction (45% strongly agreed, 40% agreed, 10% were neutral, and 5% disagreed). These findings show that, despite some remaining challenges, students perceived as rather successful their attempts to devise activities within a socio-cultural framework, where language learners need to produce output socially and negotiate meaning, at once to construct knowledge and develop their language skills (Vygostky 1978; Lantolf 2000; Lantolf and Thorne 2006). The findings are confirmed by students' perceptions of their ability to devise CLIL teaching materials suitable for scaffolding students' content and language development effectively. They felt almost equally confident of being able to support content (35% strongly agreed, 60% agreed, and the others were neutral) and language (30% strongly agreed and 70% agreed) learning in CLIL classes, which is a very positive result since CLIL instruction is expected to foster content and language development to the same extent (Coyle, Hood and Marsh 2010: 1).

Students felt especially highly confident when creating CLIL technology-enhanced activities (70% strongly agreed, 20% agreed, and 10% were neutral). As previously mentioned, learners made extensive use of Open Educational Resources to devise digital interactive activities while collaboratively creating their CLIL teaching units. This result is quite interesting because students' use of educational technologies seems to have been positively affected by their own experience as online learners during emergency remote learning. While devising digital CLIL activities collaboratively, students in fact used almost all the open educational digital technologies the instructor had adopted to engage them in active learning in emergency remote education. In this respect, it is particularly meaningful that students felt they were able to use digital tools to foster inclusion rather effectively (45% strongly agreed, 40% agreed, and 15% were neutral). Inclusion emerged as a priority for students while engaged in technology-enhanced CLIL materials design since the Covid-19 disruption

made them increasingly aware of the challenges that the digital divide represents for learners; as a result, the use of Open Educational Resources was especially valued. Furthermore, also thanks to the flexible use of Open Educational Resources, learners felt confident they could devise digital teaching materials suited to catering to students' various learning styles (35% strongly agreed, 60% agreed, and the others were neutral) thereby fostering inclusion and personalization at the same time in education. Students' positive perceptions of the development of their skills as CLIL materials designers is further confirmed by the claim that they felt they had developed to a very satisfactory extent the skills necessary to design cognitively and linguistically appropriate CLIL learning materials (35% strongly agreed, 55% agreed, and 10% were neutral).

Students felt that the blend of face-to-face instruction and emergency remote teaching was also instrumental in helping them develop content-specific declarative knowledge effectively. Most felt in fact that they could illustrate the main theoretical tenets of the CLIL learning environment quite easily (60% strongly agreed, 30% agreed, and 10% were neutral). Likewise, the majority of students felt confident (70% strongly agreed, 20% agreed, and 10% were neutral) that in the future they would be able to implement the knowledge and skills acquired in the course autonomously. Furthermore, most students claimed that they thought the course objectives had been achieved (55% strongly agreed, 30% agreed, and only 15% – formally three students – were neutral). These findings suggest that the learning activities were effectively aligned to learning objectives (Biggs 2003) and in particular that the refocusing of learning outcomes and assessment in the pivot was successfully implemented.

1.5.2.5. Conclusion

The findings show that the students perceived the course learning outcomes to have been achieved to a considerable extent. In this respect, digitally-enhanced collaborative work was especially instrumental in helping students develop the skills targeted within an equity and inclusive framework.

The findings of the study can be especially useful in designing blended and/or Hyflex and/or fully online courses in the post-pandemic context, targeted at catering to the needs of students who do not choose blended, fully online, or HyFlex courses autonomously but who have to adjust to new digital educational learning environments due to global health and/or social impending conditions.

1.5.3. Main findings from both studies

Overall, students enjoyed technology-enhanced learning, which needs to be carefully scaffolded to enable learners to experience digital learning successfully. In particular, they valued collaborative learning targeted at the creation of technology-enhanced artifacts, which entails co-construction being

conceived as instrumental in promoting effective content knowledge and skills development. In this respect, skills development was especially significant during emergency remote learning, which confirms the pedagogical value of skills development in online learning environments. The need to train students to use digital tools before asking course participants to use them to accomplish complex activities has come to be seen as a key course component. Likewise, students have appreciated the use of visualizations. Furthermore, students' feeling of belonging to a learning community, which implies fostering social presence, has been identified as an essential dimension of successful online learning. Last but not least, the need to devise digitally-enhanced activities which cannot be implemented otherwise has emerged, thereby revealing a shift in the way students perceive the use of educational technology.

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2.
OPEN EDUCATION AND OPEN PEDAGOGY

2.1. Open Education

The democratizing of higher education is one of the driving forces of Open Education (OE) (Blessinger and Bliss 2016: 1). Interestingly, Open Education has emerged as one of the key dimensions of post-pandemic higher education practices. Open Education, which is seen as strategically instrumental in making knowledge available to everybody, thereby promoting access and equity (Blessinger and Bliss 2016; Ossiannilsson, Altinay and Altinay 2016; Dastur 2017), refers to the practices fostering the sharing and adoption of openly licenced educational resources to various degrees worldwide (Väänänen and Peltonen 2016: 282). The European Union increasingly advocates the implementation of Open Education to enhance access, equity, and inclusion in education (European Commission 2013b; Inamorato dos Santos, Punie and Castaño Muñoz 2016; Inamorato dos Santos 2019).

The Cape Town Open Education Declaration pinpointed the key role that open digital tools play in Open Education (The Cape Town Open Education Declaration 2008)[1]; open technology enables a shift in educational practices. Open Education is thus conceived as the result of a wide range of shared practices mainly supported by digital tools (Inamorato dos Santos, Punie and Castaño Muñoz 2016: 5).

Kahle has identified five core parameters of OE:

- Design for access
- Design for agency
- Design for ownership

1. "Open education is not limited to just open educational resources. It also draws upon open technologies that facilitate collaborative, flexible learning and the open sharing of teaching practices that empower educators to benefit from the best ideas of their colleagues. It may also grow to include new approaches to assessment, accreditation and collaborative learning" (The Cape Town Open Education Declaration 2008).

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- Design for participation
- Design for experience (2008: 30).

Access, specifically the process of making education freely available for everyone, represents the first grounding parameter (Kahle 2008: 33). Open education also fosters learners and instructors' agency by enabling them to control and manage content knowledge teaching/learning materials and digital tools (Kahle 2008: 35). Ownership is the result of open licensing which allows users to repurpose educational resources catering to local needs (Kahle 2008: 38). Participation envisages the active engagement of all stakeholders, including technology designers, instructors, and learners, in the development or extension of open digital tools and resources, thereby fostering flexible and collaborative active learning (Kahle 2008: 39-41). In this respect, experience-based design needs to take into account not only the function but also the appeal that open technology has for end users (Kahle 2008: 42-3).

2.1.1. Open Educational Resources and Practices

Open Educational Resources (OERs) are digital, openly licenced, shareable teaching/learning resources, which can be freely accessed and/or adapted and repurposed thanks to customized open copyright licensing (DeRosa and Robison 2017: 116). Open education encourages learners' active engagement with high-quality open learning materials devised and used within a sound theoretical pedagogical framework (Ossiannilsson, Altinay and Altinay 2016: 160).

The term Open Educational Resources was first used at a UNESCO event on the Impact of Open Courseware for Higher Education in Developing Countries, which marked the beginning of the OER movement:

> 3. The recommended definition of Open Educational Resources is: The open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes (UNESCO 2002: 24).

Various definitions of OERs, which share features such as free accessibility, repurposing, and reusability (Orr, Rimini and Van Damme 2015: 17), are available besides the one coined by UNESCO. The definition formulated by OECD (Organization for Economic Co-operation and Development) highlights the foregrounding digital dimension of OERs:

> Open educational resources are digital learning resources offered on line (although sometimes in print) freely and openly to teachers, educators, students, and independent learners in order to be used, shared, combined, adapted, and expanded in teaching, learning and research (Hylén, van Damme, Mulder and D'Antoni 2012: 18).

Creative Commons open licensing makes the shared use of (digital) OERs possible. In particular, Creative Commons licenses allow educational materials creators to keep their copyright while their resources are being used, copied, adapted, and repurposed by others worldwide for overall non-commercial use (Green 2017: 32-33). Thanks to Creative Commons licenses, users can manipulate OERs to various degrees through the 5Rs: "OER can be freely retained (keep a copy), reused (use as is), revised (adapt, adjust, modify), remixed (mashup different content to create something new), and redistributed (share copies with others) without breaking copyright law" (Green 2017: 31). In OERs, the repurposing of materials is pivotal since it allows instructors to devise high quality teaching materials catering to their students' needs.

OERs can be any kind of paper-based or digital learning resources; the latter are especially suitable for being reused, shared, adapted, and repurposed in different learning environments (Orr, Rimini and Van Damme 2015: 17). In this respect, it is important to mention that the shift from technology-driven to education-driven technologies has been especially fostered by the development of OERs, which have triggered the consistently shifting practices informing the dynamic quality of Open Education in general and educational systems in particular (Orr, Rimini and Van Damme 2015: 16).

Open Educational Practices (OEPs) are the didactic strategies, informed by Open Educational Resources (including open technologies), developed to foster effective teaching/learning processes[2]. Connected to OEPs, open pedagogy entails students' active engagement and higher degrees of agency in activity accomplishment; in this light, activities are usually strictly connected to real-world issues (such as subject-specific topics) and devised using high-quality OERs which are made possible by the 5Rs (Walz 2017: 158).

Within an open pedagogy framework fostering student-centered learning, learners can use Open Educational Resources to generate openly licenced artifacts (DeRosa and Robinson 2017). In this respect, renewable assignments are user-generated openly licenced artifacts (Katz and Van Allen 2020). In particular, assignments can be disposable, authentic, constructionist, and renewable (Wiley and Hilton 2018). Disposable assignments are those assignments, such as essays, that students produce only to show their own learning; instructors grade disposable assignments whose life cycle ends with marking (Wiley and Hilton 2018: 136). Authentic assessments, which have a purpose which goes beyond just having to prove students' learning (Wiley and Hilton 2018: 137), can be, for example, student-generated learning artifacts that instructors use

2. Open Educational Practices include: "Production, management, use and reuse of open educational resources […]. Developing and applying open/public pedagogies in teaching practice […]. Open learning and gaining access to open learning opportunities […]. Practising open scholarship, to encompass open access publication, open science and open research […]. Open sharing of teaching ideas and know-how […]. Using open technologies […] in an educational context" (Beetham, Falconer, McGill, and Littlejohn 2012: 1-2).

as teaching resources in the following iterations of a course (Wiley and Hilton 2018; Katz and Van Allen 2020). Constructionist assignments are those made publicly available (Wiley and Hilton 2018: 137), such as student-generated videos uploaded on a public website. Renewable assignments, as mentioned above, are openly licenced student-generated artifacts made available to the community to be reused, revised, remixed, and redistributed (Veletsianos 2017; Chen 2018; Wiley and Hilton 2018). For example, in a renewable assignment, students can contribute to the development of parts of an open textbook. Renewable assignments are representative of the OER-enabled pedagogy entailing materials creators' awareness of contributing to building knowledge by making it available through the 5Rs (Wiley and Hilton 2018: 135). Renewable assessment is a key component of engaging pedagogy:

> Engaging pedagogy is an approach to curriculum design and delivery in which learners are encouraged to actively participate in the learning process. Related practices include supporting students to develop portfolios that have relevance for them outside of the classroom, involving the learners in producing content both for peers and for the wider public (Rapanta *et al*. 2020).

In this respect, open pedagogy provides an opportunity for "students to learn as co-investigators so that they realize a model beyond the banking paradigm for their education" (Rosen and Smale 2015).

2.1.2. OER user types

The Open Education movement and the use of OERs, which are just gaining momentum, still have a long way to go (Blessinger and Bliss 2016: 2). An OER Research Hub[3] study has identified three main types of OER users (and uses): "OER active, OER as facilitator, and OER consumer" (Weller *et al*. 2016: 80). OER active users, such as university instructors who use and/or co-create and share open textbooks, know and engage with OERs, OER practices, and OER licensing (Weller *et al*. 2016: 80-81). OER as facilitators, namely instructors who know about OERs (and relative licensing), which they use like any other resource, and choose OERs because the resources meet their pedagogic needs; if useful, this kind of OER users may end up modifying the resources (Weller *et al*. 2016: 82-84). OER consumers are only minimally aware of the features of OERs and use OERs like any other resource; OER consumers use OERs mainly because of their free availability and good quality, without contributing to their creation and/or dissemination (Weller *et al*. 2016: 85). The OER movement aims to foster OER facilitators and consumers to become active users (Weller *et al*. 2016: 87).

3. *oerhub.net*.

2.1.3. Open textbooks

Open Educational Resources and Open Educational Practices may be instrumental in fostering the enactment of instructors and learners' critical thinking and agentivity by challenging the banking transmissive models of instruction to a certain extent (Vanasupa *et al*. 2016: 207). In particular, OER-specific features, which inform a dynamic view of knowledge, open up the opportunity for instructors and students' engagement with self- and content-knowledge management (Vanasupa *et al*. 2016: 207) within a networked rhizomatic view of knowledge construction (Ossiannilsson, Altinay and Altinay 2016: 170). In this respect, thanks to OERs, instructors can shift from traditional textbook-based courses to open textbook-based courses and OER-supported curricula (Miller 2016: 239-245). The transition can occur especially if OER-friendly environments and services are available (Miller 2016: 237).

Self-authored and co-authored open textbooks can be created in various ways, such as through "textbook creation and adaptation projects, individual and collaborative efforts, and traditional timeline and compressed 'sprint' models" (Jhangiani, Green and Belshaw 2016: 179). Different degrees of engagement with OERs and thus open textbooks can be fostered, such as read-only materials and (highly) interactive engagement; the latter is the dimension that best caters to a dynamic nature of knowledge construction (Gibson, Ifenthaler and Orlic 2016: 271).

Open textbooks have various affordances in terms of content, resources, and activities. In open textbooks, the dynamic organization of disciplinary knowledge can be disrupted and redesigned by instructors to achieve objectives such as: keeping up with the latest trends in the discipline (multimodal materials can be embedded into open textbooks); scaffolding students' learning processes (digital interactive activities fostering students' understanding and analysis of the content can be embedded into open textbooks); catering to students' needs and characteristics (different types of digital activities catering to students' competencies and learning styles can be embedded into open textbooks); and aligning with curriculum requirements and promoting learners' critical thinking (Jhangiani, Green and Belshaw 2016: 192).

Open textbooks afford both content and pedagogical personalization processes (Jhangiani, Green and Belshaw 2016: 194). Furthermore, they enable users, such as instructors and students, to engage actively with knowledge creation (Vanasupa *et al*. 2016: 201). Students' authoring engagement can especially foster sudents' agentivity and critical thinking (Vanasupa *et al*. 2016: 207). However, at the same time, Open Educational Resources and open textbooks can challenge educators' identity: "As educators, our identity includes the label 'expert'. We have spent years building our reputations. We found that using OER actually causes a deep questioning about our positions in society" (Vanasupa *et al*. 2016: 214).

Overall, institutions voice their issues about the quality of OERs, which represents one of the main obstacles to the adoption of open textbooks in higher education. To guarantee high-quality OERs, open textbooks have increasingly gone through a peer review process. To this purpose, OER-engaged institutions and organizations have devised rubrics to scaffold scholars' evaluation of open textbooks (Jhangiani, Green and Belshaw 2016: 190). For example, a complex (peer) reviewing system, which also includes local, national, and international peer reviewers, guarantees the high quality of the academic content in the Noba project, which provides OERs focusing on psychology (Diener, Diener and Biswas-Diener 2017: 213-214).

Various openly licenced, digital, open(-source) textbook projects, often including ancillary resources, have been developed in the last two decades, such as the Noba, OpenStax, and BC Campus projects. Overall, digital open textbooks provide benefits to instructors and students, starting with their low or nonexistent costs. Digital open textbooks, which can be internationally accessed, foster individualization and localization; instructors can choose the chapters they need to cover their syllabus requirements and modify the content to suit local needs and characteristics (Diener, Diener and Biswas-Diener 2017: 212-213). Furthermore, digital open textbooks foster accessibility since instructors can customize materials and tailor them to students with special needs or with learning disabilities (Diener, Diener and Biswas-Diener 2017: 213).

The Noba project, focusing only on psychology, has devised a flexible openly licenced module-based (modular) open textbook model also featuring supporting teaching materials, such as (adaptive) quizzes and presentation slides; instructors can select chapters from different modules to create their own customized digital textbook and modify the content itself (Diener, Diener and Biswas-Diener 2017: 213-214). The project has also focused on the production of international contents to foster international adoption of the materials; at the same time, it has made the materials accessible to visually impaired students and students with other disabilities (Diener, Diener and Biswas-Diener 2017: 214-215). Inclusion thus emerges as an objective of open textbooks in particular and open education in general.

The OpenStax project, started at Rice University in Texas (USA) in the late 1990s, had three main objectives:

> (1) to convey the interconnected nature of knowledge across disciplines, courses, and curricula; (2) to move away from a solitary authoring, publishing, and learning process to one based on connecting people in open, global learning communities that share knowledge; and (3) to support personalized learning (Baraniuk *et al*. 2017: 219).

In the late 2000s, OpenStax revised some aspects of the project to foster the adoption of open textbooks also by those instructors who worked under pressure and had no time to create their own materials (Baraniuk *et al*. 2017: 220). As a

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result, OpenStax addressed some critical issues in order to disseminate the use of open textbooks further. In particular, a team of content and technical experts started to work collaboratively to guarantee high quality ready-made materials catering to national standard subject-specific goals; furthermore, increased adoption rates of open textbooks have been triggered by the implementation of a system aimed at improving the discoverability of these teaching materials (Baraniuk *et al*. 2017: 221).

The BC (British Columbia) Open Textbook program started at the BC Campus in British Columbia, Canada, in 2012 thanks to a British Columbia government grant. In addition to creating its own open textbooks, the BC open textbook project has built its wide collection by adopting and adapting to BC post-secondary context needs open textbooks from other platforms (such as OpenStax, College Open Textbooks, and the Open Textbook Library) (Burgess 2017: 228-231).

In open pedagogy, students' empowerment can be fostered through self-directed content creation and manipulation, thus shifting from open textbooks to opening up textbooks, which is a process students can contribute to as active stakeholders (DeRosa and Robison 2017: 122). In particular, shifting views of OERs from products to processes opens up end users' new knowledge conceptualizations: "When we think about OER as something we do rather than something we find/adopt/acquire, we begin to tap their full potential for learning" (DeRosa and Robison 2017: 122). OERs' affordances are maximized within an open education pedagogical framework envisaging learning as not only student-centered but also student-driven where students' engagement with content plays a pivotal role (DeRosa and Robison 2017: 117).

2.2. The effectiveness of OERs in higher education

Although further research is necessary, since the phenomenon is still rather new, the use of Open Educational Resources in online, blended, and face-to-face learning environments in higher education seems to affect students' academic results positively in terms of content knowledge development, pass rates, completion rates, and dropout rates (Hilton and Laman 2012; Fischer, Hilton III, Robinson and Wiley 2015; Hilton 2016; Hilton III, Fischer, Wiley and Williams 2016; Wiley, Williams, DeMarte and Hilton 2016; Hendricks, Reinsberg and Rieger 2017; Colvard, Watson and Park 2018; Jhangiani, Dastur, Le Grand and Penner 2018; Delgado, Delgado and Hilton III 2019). Furthermore, as research shows, even though there may be no differences in terms of learning rates between the use of commercial textbooks and open textbooks in higher education, the use of open textbooks is still instrumental in lowering withdrawal rates significantly (Clinton and Khan 2019). Faculties' perceptions of OER use also seem to be mainly positive (Hilton III, Fischer, Wiley and Williams 2016). Likewise, students' perceptions of OER use in

higher education are mostly positive in relation to quality, accessibility, and efficacy (Bliss, Hilton, Wiley and Thanos 2013; Bliss, Robinson, Hilton and Wiley 2013; Hilton, Gaudet, Clark, Robinson and Wiley 2013; Illowsky, Hilton, Whiting and Ackerman 2016; Delimont *et al*. 2016; Cooney 2017; Hendricks, Reinsberg and Rieger 2017; Jhangiani and Jhangiani 2017; Jhangiani, Dastur, Le Grand and Penner 2018).

2.2.1. ZTC Degree programs

A fairly recent development of OER adoption in higher education are ZTC Degree (Zero Textbook Cost) programs (previously called Z Degrees, Zed Cred, and Zero Degrees), where all ZTC courses/classes use free and openly licenced (and mostly peer-reviewed) Open Educational Resources[4]: "The goals of the Z Degree are threefold: 1) to improve student success, 2) to increase instructor effectiveness, and 3) to save students['] money" (Hilton III, Fischer, Wiley and Williams 2016: 21). In ZTC Degree courses, students do not have to purchase any commercial textbooks since open textbooks and other kinds of OERs are adopted as course reading materials (Hilton III, Fischer, Wiley and Williams 2016: 4).

ZTC Degree initiatives are increasing. In Canada, Kwantlen Polytechnic University (KPU) has recently created new ZTC degree programs[5] while the number of ZTC courses is over 800[6] and still expanding. In the USA, ZTC Degrees are available in various universities and colleges, such as CUNY (City University of New York) and Tidewater[7] Community College[8] in Virginia[9], which is the institution where the first ZTC Degree in the USA was implemented in 2013[10]. Furthermore, at SUNY (State University of New York), a SUNY OER

4. *open.bccampus.ca/zed-credz-degree-grants/*.
5. *www.cbc.ca/amp/1.5231164?__twitter_impression=true*.
6. *www.kpu.ca/open/ztc*.
7. *www.cccoer.org/webinar/zero-textbook-cost-degree-program*.
8. *www.slideshare.net/UnaDaly/oew-2015-zero-textbook-cost-degree*.
9. *the-digital-reader.com/2015/05/13/virginia-launches-statewide-open-source-textbook-program*.
10. Other insititutions that have developed ZTC programs are: University of Northwestern St. Paul (*unwsp.edu/news/introducing-unws-first-z-degree-zero-textbook-cost-degree*) and Central Lakes College in Minnesota, some colleges (*www.edsurge.com/news/2018-03-28-how-an-oer-rookie-dove-deep-into-a-zero-cost-textbook-degree-program*) in California (*www.slideshare.net/UnaDaly/cccoer-three-statewide-oerztc-degree-pathway-initiatives*) – such as College of the Canyons, Orange Coast College, West Hills College Lemoore (*www.cccoer.org/casestudy/a-winning-combination-co-development-of-an-elementary-education-oer-degree-and-a-california-zero-textbook-cost-psychology-degree*) and San Bernardino Valley College (*www.valleycollege.edu/open-education-resources/additional-resources/zero-textbook-degrees.php*) –, Mesa Community (*pressbooks.library.ryerson.ca/zerotextbookcost/chapter/zero-textbook-cost-degree-workplan*) College (*ctl.mesacc.edu/teaching/z-degree*) in Arizona, Austin (*austincc.edu/news/2018/12/new-zero-cost-textbook-program-saves-acc-students-more-21-million*) Community (*campustechnology.com/articles/2019/04/29/austin-cc-expands-zero-textbook-cost-*

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Services Team, led by a SUNY OER Services Campus Strategist, has been set up to develop OER degrees[11].

Overall, the adoption of OERs in higher education is on the rise also for single courses. For example, NOVA[12] (Northern[13] Virginia Community College) offers OER-based courses; a steadily increasing number of ZTC online courses (namely, Z sections) are available at CUNY[14]; in California, Skyline College[15] offers ZTC classes and OER (low cost) classes. Various states in the USA are working towards an increase in OER adoption[16].

Overall, the use of OERs and open textbooks in higher education institutions can take various formats in relation to the way and the extent to which OERs are used, including ZTC Degrees, ZTC classes (Z Classes), ZTC sections (Z Sections), and low-cost OER classes.

2.3. Digital learning and OERs

Within an educational technology framework, various digital approaches and practices have emerged in the last few decades. In this context, a distinction has been drawn between emerging technologies, such as MOOC-specific automated grading, and emerging practices, such as the online use of OERs (Veletsianos 2016: 4-7). Emerging technologies and digital practices, which are not necessarily content-specific although they may be more suitable for certain disciplinary contents (Veletsianos 2016: 4), are mainly developed and implemented within a socio-constructivist framework. In relation to digital learning, a distinction needs to be made, for example, between new and traditional e-learning environments, with the former being, for example, MOOCs and open education and the latter being, for instance, blended learning which transforms traditional class practices (Cope and Kalantzis 2017: 3). In this respect, Learning Management Systems foster a traditional linear view of learning along with individualized cognition; likewise, e-textbooks belong to traditional e-learning environments and maintain the linear sequence of paper-based manuals while presenting knowledge in an abridged format through their authors' authoritative voice (Cope and Kalantzis 2017: 3-13).

degrees.aspx) College (*www.austincc.edu/academic-and-career-programs/z-degree*) in Texas, Houston Community College System (HCCS) in Texas (*www.prweb.com/releases/houston_community_college_system_partners_with_panopen_to_expand_oer_usage_across_all_campuses/prweb16576868.htm*).

11. *www.slideshare.net/UnaDaly/cccoer-three-statewide-oerztc-degree-pathway-initiatives*.
12. *www.slideshare.net/UnaDaly/oew-2015-zero-textbook-cost-degree*.
13. *www.cccoer.org/webinar/zero-textbook-cost-degree-program*.
14. *sps.cuny.edu/academics/zero-textbook-cost-courses*.
15. *skylinecollege.edu/ztc/forstudents.php*.
16. "Texas joins California, Oregon, and Washington as one of the first states in the United States to pass legislation requiring OER course markings". *libguides.uta.edu/TXtoolkit/examples*.

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The increasing use of educational technologies and the transition to a sociocultural and socio-constructivist approach in language learning methodologies have positively affected the use of OERs in foreign and second language teaching (Whyte 2016). The adoption of "socially shaped" (Veletsianos 2016: 6) digital technologies, in keeping with a socio-constructivist view of content and language development, is highly context-dependent (Kimmons and Hall 2016: 54), which entails emerging technologies and practices being in constant flux since consistently adapting to new contexts and users (Veletsianos 2016: 8). The ever-changing, dynamic dimension of emerging technologies and practices entails a high degree of flexibility suitable for experimenting within new theoretical digital and epistemological frameworks (Veletsianos 2016: 11). Within a socio-constructivist framework, models of learning underpinning technology-enhanced educational processes also need to take into account the emotional dimension, especially if (individual and networked) identities, personal and shared responsibilities, and socially networked knowledge construction (along with agents' digitally-shaped beliefs and actions) need to be catered to (Castañeda and Selwyn 2018: 4). In this respect, it is important to mention that, as previously noted, in a post-pandemic context, a pedagogy of care becomes a crucial component of a socio-constructivist view of learning. In this light, a pedagogy of care can also be fostered through digitally-enabled personalization (Bartolomé, Castañeda and Adell 2018: 7) instrumental in customizing activities to students' individual needs, thereby catering to learners' neurodiversity (Selwyn 2016: 189). As a result, digital Open Educational Resources can be especially suitable for addressing students' post-pandemic needs.

Open education has been envisaged as a networked-based information ecology (Thorne 2016) conceived as "a system of people, practices, values, and technologies in a particular local environment. In information ecologies, the spotlight is not on technology, but on human activities that are served by technology" (Nardi and O'Day 1999: 49). Digitization is thus instrumental in opening up education and experimenting with transformative learning practices (Ossiannilsson, Altinay and Altinay 2016: 168). These objectives are in line with the European Union policy, which calls for technology-enhanced open education in higher education to foster access and equity (European Commission 2013b; Inamorato dos Santos, Punie and Castaño Muñoz 2016; Inamorato dos Santos 2019).

The integration of technology and open education is thus envisioned as especially useful to foster global, multicultural, and transformative equity-driven processes in higher education institutions (Ossiannilsson, Altinay and Altinay 2016: 169). In this perspective, digital OERs enable instructors to share content materials with distant national and international stakeholders who can thus engage with free online multisourced knowledge (European Commission 2013b: 3). In particular, the implementation of digital OERs in higher education is seen as instrumental in fostering equity in education, making it available also to less privileged groups (EU 2013: 3). In this perspective, freely available

educational technology is suitable for fostering newly designed digitally-enhanced teaching and learning practices where the digital component is becoming increasingly important in EU policies (European Commission 2013b; Inamorato dos Santos, Punie and Castaño Muñoz 2016; European Commission 2018; Inamorato dos Santos 2019). In this respect, to cater effectively to the needs of digital education in a post-pandemic context, the EU launched a Europe-wide consultation (European Commission 2020b)[17] targeted at crowdsourcing ideas from the various stakeholders in order to design the new Digital Education Action Plan (European Commission 2020a).

Overall, the availability and visibility of well-designed subject-specific technology-enhanced OERs is advocated and seen as instrumental in fostering the production of course-customized materials and the development of creative and innovative learning environments (European Commission 2013b; Inamorato dos Santos, Punie and Castaño Muñoz 2016; European Commission 2018; Inamorato dos Santos 2019). In this perspective, OER user-friendly resources and services are necessary to enable instructors to access and customize, with methodological support if necessary, high-quality digital OERs.

2.4. Distant reading and text mining through Open Educational Practices

Meaning making is the product of multimodal communication which is the result of the interrelation of various modes, such as language and visual resources (Jewitt, Bezemer and O'Halloran 2016[18]; Adami 2017[19]; Hampel 2020[20]).

17. *ec.europa.eu/education/news/public-consultation-new-digital-education-action-plan_en*.

18. "Images […] do not structure and order the world in the same way as language does. On the contrary, images order human experience by situating happenings in relation to other happenings, as parts of a whole. For example, in a photograph, painting or scientific diagram, many happenings and actions are taking place in relation to each other simultaneously. However, certain aspects of the image are made salient through semiotic choices such as gaze, light and framing and immediate features of the context of the situation (e.g. instructions to view parts of the image or captions); that is, although we see everything in relation to the whole in images, we also 'read' images in particular ways, depending on the semiotic choices made within the image and the context" (Jewitt, Bezemer, and O'Halloran 2016: 34-35).

19. "Within the field of 'multimodal studies' (O'Halloran and Smith, 2011), the phenomenon of multimodality is approached through different theoretical perspectives (Jewitt, 2009a; O'Halloran, 2011), all hinging on four key assumptions (Jewitt, 2014a), namely (1) all communication is multimodal; (2) analyses focused solely or primarily on language cannot adequately account for meaning; (3) each model has specific affordances arising from its materiality and from its social histories, which shape its resources to fulfill given communicative needs; and (4) modes concur together, each with a specialized role, to meaning-making; hence relations among modes are key to understand every instance of communication" (Adami 2017: 451).

20. "The theory of multimodal communication […] understands language and other meaning-making systems as semiotic resources that are orchestrated in a particular context and for a particular purpose" (Hampel 2020: 631).

Visualization makes content more easily accessible for learners, thereby promoting inclusion. Visualization fosters in particular understanding and memorability (Borkin *et al*. 2013; Miller 2014; Borkin *et al*. 2016). In this respect, visualization can help students understand and remember[21] information more easily by decreasing the cognitive workload that information processing and recall entail (Borkin *et al*. 2013: 2306). Various dimensions, such as color variety, visual complexity, and human recognizable objects[22], seem to enhance memorability (Borkin *et al*. 2013: 2311). The more colors appear in visualizations, for example, the more effective memorability seems to be (Borkin *et al*. 2013: 2311)[23].

As mentioned above, visualization fosters understanding and information recall. In this respect, titles are instrumental in promoting understanding and recall since people are likely to allocate more time to text, specifically titles (Borkin *et al*. 2016: 527). Likewise, in visualizations, redundancy of data and text can enhance understanding and informational recall significantly (Borkin *et al*. 2016: 527). Furthermore, the faster the recognition of the content in visualizations, the easier the information recall (Borkin *et al*. 2016: 527).

Visualization can be especially useful to foster text comprehension by making underpinning semantic relationships surface. In this perspective, Moretti elaborates the concept of distant reading aimed at synthetizing the main features of a large amount of aggregated text data through the visualization of recurrent patterns (2007, 2011, 2013). Distant reading entails identifying the main textual patterns and representing them through various kinds of visualization, from networks[24] to charts, instrumental in making latent semantic relationships emerge. The difference between close and distant reading reads as follows:

21. "Identifying which type of visual information is memorable or forgettable provides a basis for understanding a number of cognitive aspects of visualizations. This is because given limited cognitive resources and time to process novel information, capitalizing on memorable displays is an effective strategy. Research in cognitive psychology has shown that conceptual knowledge is an organizing principle for the storage and retrieval of information in memory. […] Recent large-scale visual memory work has shown that existing categorical knowledge supports memorability for item-specific details […]. In other words, many additional visual details of the image come for free when retrieving memorable items. Understanding the memorability of visualizations provides a baseline for leveraging these cognitive capabilities" (Borkin, Vo, Bylinskii, Isola, Sunkavalli, Oliva, and Pfister 2013: 2307).

22. "We have two binary attributes to identify pictograms, photos, or logos: human recognizable objects and human depiction. We explicitly chose to have a separate category for human depictions due to prior research indicating that the presence of a human in a photo has a strong effect on memorability" (Borkin, Vo, Bylinskii, Isola, Sunkavalli, Oliva, and Pfister 2013: 2308).

23. "Visualizations with 7 or more colors have a higher memorability score […] than visualizations with 2-6 colors […], and even more than visualizations with 1 color or black-and-white gradient" (Borkin, Vo, Bylinskii, Isola, Sunkavalli, Oliva, and Pfister 2013: 2311).

24. "Social network analysis (SNA) involves identifying people and other entities and then analyzing how they are linked in the data. It is popular both in the intelligence community and in the social sciences. SNA techniques can graph a network of people to show how they are connected and to what degree. […] The resulting data about the links between people can be visualized or queried by computer. These techniques can be applied in the humanities when one

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While close reading retains the ability to read the source text without dissolving its structure, distant reading does the exact opposite. It aims to generate an abstract view by shifting from observing textual content to visualizing global features of a single or of multiple text(s) (Jänicke, Franzini, Cheema and Scheuermann 2015).

Although distant reading leads to a loss of the semantic content in terms of granularity when compared to close reading, distant reading contributes to the surfacing of meaningful patterns underpinning texts:

> we know how to read texts, now let's learn how not to read them. Distant reading: where distance […] is a condition of knowledge: it allows you to focus on units that are much smaller or much larger than the text: devices, themes, tropes – or genres and systems. And if, between the very small and the very large, the text itself disappears, well, it is one of those cases when one can justifiably say, Less is more. If we want to understand the system in its entirety, we must accept losing something. We always pay a price for theoretical knowledge: reality is infinitely rich; concepts are abstract, are poor. But it's precisely this 'poverty' that makes it possible to handle them, and therefore to know. This is why less is actually more (Moretti 2013: 794).

Extracting patterns from subject-specific materials and/or corpora of disciplinary works entails a shift in text understanding and interpreting strategies (Rockwell and Sinclair 2016: 2391). Working on entire texts or corpora leads in fact to a different kind of interpretation since "Big data typically can't be used to prove causal links between phenomena […]. Instead, big data is used to show correlations" (Rockwell and Sinclair 2016: 2395-2569).

It is through "computer-aided text analysis" (Neuendorf 2017: 39) that researchers and instructors can implement distant reading. It is thus through computational text analysis, where "Texts are transformed into bags-of-words[25] […], important words are filtered […], and over the course of many iterations topics are inferred" (Marciniak 2016: 1), that distant reading is operationalized. The use of computational data, which are instrumental in detecting underpinning semantic correlations in texts, is likely to empower end users who establish a new dialogical, inferential, and experimental approach with texts while investigating them hands-on.

In text analysis, researchers and instructors can use both close and distant reading to extract different types of relationships, such as causal connections and semantic correlations (Jänicke, Franzini, Cheema and Scheuermann 2015),

wants to track the connections between characters in a work (Moretti 2013), or the connections between correspondents in a collection of letters or places mentioned in a play" (Rockwell and Sinclair 2016: 2660).

25. A bag-of-words represents a text by featuring the words contained in it, without any reference to the order and the structure (including grammar) in which the words appear in the text, along with their frequency (vectorization). In a bag-of-words, words are thus decontextualized, grammar is discarded, and a vocabulary containing all the unique words present in the text is generated along with their frequency of occurrence. (Ignatow and Mihalcea 2017: 292).

and implement concurrently qualitative and quantitative analyses (Underwood 2016: 531):

> Computational text analysis is not a replacement for but rather an addition to the approaches one can take to analyze social and cultural phenomena using textual data. By moving back and forth between large-scale computational analyses and small-scale qualitative analyses, we can combine their strengths so that we can identify large-scale and long-term trends, but also tell individual stories (Nguyen *et al*. 2019: 19).

Moretti's distant reading can be operationalized in particular through text mining, i.e. computational text analysis which transforms unstructured natural language text data (namely text data not yet encoded in HTML or XML) into structured and usable knowledge by means of algorithm-based program analysis (Jockers and Underwood 2016; Zhai and Massung 2016). Text mining, which is "a subfield [of data mining] devoted to the extraction of knowledge from unstructured texts" (Jockers and Underwood 2016: 291), is useful to detect patterns of texts and thus uncover hidden semantic relationships (Zhai and Massung 2016: 8)[26]. In particular, text mining employs unsupervised processes, which aim to detect unknown text patterns and semantic relationships, while machine learning uses supervised processes, which aim to retrieve specific patterns in texts using pre-trained detecting models (Jockers and Underwood 2016: 291):

> The term text (or data) mining and machine learning are frequently conflated and somehow confused but do represent two different practices. Generally speaking mining is applied to techniques focused on exploration and discovery whereas machine learning refers to techniques or methods that are designed for prediction. The former is generally referred to as unsupervised learning and the latter as supervised learning. At a deeper level of specificity, these kindred practices may be called machine clustering and machine classification. The simplest way of differentiating them is to consider the role of the researcher and whether or not that researcher has advanced and specific knowledge of the structure and composition of the data.
> In machine clustering, for example, we do not have a preconceived notion of how the data is or might be organized and do not pre-label the individual data points as belonging to one group or another; the objective is to discover hidden structure in data by maching grouping, or clustering, the data objects based on the similarity of their features (Jockers and Underwood 2016: 293)[27].

26. "Knowledge Acquisition (Text Analysis) […] enables a user to acquire useful knowledge encoded in the text data that is not easy for a user to obtain without synthesizing and analyzing a relatively large portion of the data. In this case, a TIS [text information system] can analyze a large amount of text data to discover interesting patterns buried in text […] and create new information or knowledge" (Zhai and Massung 2016: 8).

27. "In machine clustering […], [i]f we were clustering shapes, for example, we might have a feature called "number of sides". Given this data about the features of these shapes, an unsupervised algorithm might cluster tree-sided objects into one pile and four-sided objects into another. The machine would not, however, be given information about these classes of shapes in advance. The machine is only given the features and attempts to group the objects into categories

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Clustering and topic modelling are examples of unsupervised processes (Jockers 2014[28]; Jockers and Underwood 2016); in the social sciences, researchers are more likely to use unsupervised processes (DiMaggio 2015: 1). Topic modelling consists in the statistical algorithm-based detection of semantic and/or thematic patterns in texts, revealing their hidden structure; the words retrieved in this process are organized into topics on the basis of their most frequent collocates[29] (Blei, Ng and Jordan 2003; Blei 2012; Gretarsson *et al*. 2012; DiMaggio, Nag and Blei 2013; Boyd-Graber, Mimno and Newman 2014). In particular, in topic modelling[30], "LDA [Latent Dirichlet Allocation] assumes that each document is composed of a number of topics, and each word in the document is attributable to one of those topics" (Gretarsson *et al*. 2012: 5).

Natural language parsers parse texts before computational text analysis, targeted at retrieving machine-readable facts, starts:

> A natural language parser is a program that works out the grammatical structure of sentences, for instance, which groups of words go together (as "phrases") and which words are the subject or object of a verb. Probabilistic parsers use knowledge of language gained from hand-parsed sentences to try to produce the most likely analysis of new sentences[31].

Computational text analysis can rely on algorithm-based retrieval of word (and n-gram[32]) raw and relative frequencies.

Various text mining tools[33], which do not require programming skills

or classes based on analysis of the features. In text mining, we frequently wish to group documents together according to their similarities. Similarity is often based on, or measured by some finite set of textual features, such as the relative frequency of the most frequently occurring words. […] In supervised document classification, a researcher establishes, in advance, a set of known text classes and then writes a program to classify unseen documents based on the similarity or difference between the unseen text and the known classes of documents" (Jockers and Underwood 2016: 293-295).

28. "Clustering is more often used in cases in which the classes are not already known in advance. Clustering is often employed in situations in which a researcher wishes to explore the data and see if there are naturally forming clusters" (Jockers 2014: 119).

29. "In the text document case, LDA [Latent Dirichlet Allocation] assumes that each document is composed of a number of topics, and each word in the document is attributable to one of those topics [Blei *et al*. 2003]" (Gretarsson *et al*. 2012: 5).

30. "The topics provide a high-level abstract representation of documents in a corpus" (Gretarsson *et al*. 2012: 5).

31. *nlp.stanford.edu/software/lex-parser.html*.

32. "An n-gram is a sequence of *n* elements (usually words) that occur directly one after another in a corpus, where *n* is two or more. Studying n-grams (also called clusters, or lexical bundels) is ome way to operationalize the analysis of collocations" (McEnery and Hardie 2012: 246).

33. Tools developed from a text mining or NLP (Natural Language Processing) perspective are integrated in text mining: "From a data mining perspective, we may view text mining as

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and are thus suitable for instructors, are available as OER programs, such as FLAIR[34], Voyant[35], and Textalytic[36]. Furthermore, Text Feature Analyser[37] can be used to retrieve various data in texts, such as pronouns, modals, and articles. KWords[38], a visualization-enhanced OER, retrieves instead keywords[39] and their interrelationships. The free demo of Quirkos[40], a qualitative analysis software, can also be useful. Furthermore, SketchEngine[41], software used to create and/or investigate corpora and carry out text analysis, is suited to retrieving visualization-enhanced collocations[42] through Word Sketch.

2.4.1. FLAIR

FLAIR[43] (Form-Focused Linguistically Aware Information Retrieval) is an Information Retrieval (IR) system[44] developed especially to help instructors and students search the internet for articles in English (Chinkina, Kannan and Meurers 2016: 7). To search for articles, users can either select an overall level of language competence – namely, A1, A2, B1, B2, C1, and C2 of the Common European Framework (Council of Europe 2001) – or specific grammatical constructions

mining a special kind of data, i.e., text. Following the general goals of data mining, the goal of text mining would naturally be regarded as to discover and extract interesting patterns in text data, which can include latent topics, topical trends, or outliers. From an NLP perspective, text mining can be regarded as to partially understand natural language text, convert text into some form of knowledge representation and make limited inferences based on the extracted knowledge. Thus a key task is to perform information extraction, which often aims to identify and extract mentions of various entities (e.g., people, organization, and location) and their relations (e.g., who met with whom). In practice, of course, any text mining applications would likely involve both pattern discovery (i.e., data mining view) and information extraction (i.e., NLP view), with information extraction serving as enriching the semantic representation of text, which enables pattern finding algorithms to generate semantically more meaningful patterns than directly working on word or string-level representations of text" (Zhai and Massung 2016: 8-9).

34. *sifnos.sfs.uni-tuebingen.de/FLAIR*.

35. *voyant-tools.org/*.

36. *www.textalytic.com/*.

37. *martinweisser.org/ling_soft.html#TFA*.

38. *kwords.korpus.cz*.

39. "Keyword. A word that is more frequent in a text or corpus under study than it is in some (larger) reference corpus, where the difference in frequency is statistically significant" (McEnery and Hardie 2012: 244).

40. *www.quirkos.com/index.html*.

41. *www.sketchengine.eu*.

42. "Collocation. A co-occurrence relationship between two words. Words are said to collocate with one another if one is more likely to occur in the presence of the other than elsewhere" (McEnery and Hardie 2012: 240).

43. *sifnos.sfs.uni-tuebingen.de/FLAIR*.

44. "Information retrieval systems assist users in finding from a large collection of text data the most relevant text data that are actually needed for solving a specific application problem, thus effectively turning big raw text data into much smaller relevant text data that can be more easily processed by humans" (Zhai and Massung 2016: 6).

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among those provided by the software (Chinkina, Kannan and Meurers 2016: 7). For each search query, FLAIR retrieves the top items through the Web Crawler (Chinkina and Meurers 2016: 189). FLAIR then automatically annotates the articles selected and rearranges them on the grounds of the previously user-selected grammatical structures (Chinkina, Kannan and Meurers 2016: 7). The articles retrieved or uploaded (users can also upload their documents instead of retrieving them from the internet) are annotated and parsed using Stanford natural language parser[45], which is an open source software made available by the Stanford CoreNLP library (Chinkina, Kannan and Meurers 2016: 7). FLAIR relies on the parser to generate its output: "The FLAIR light-weight algorithm for detecting linguistic forms builds upon the results of the Stanford parser" (Chinkina, Kannan and Meurers 2016: 11). FLAIR uses in particular the Stanford Shift-Reduce Parser suited to managing texts on the internet:

> The Parser module employs Stanford CoreNLP5 […] to identify numerous linguistic forms using the syntactic category and dependency information obtained from it. […] Long sentences are quite frequent in web texts, so we employed the Stanford Shift-Reduce Parser, which is less sensitive to sentence length (Chinkina and Meurers 2016: 189).

Through Stanford CoreNLP5, the texts retrieved are first part-of-speech (POS) tagged; a (POS)[46] tagger assigns each word/token a grammatical tag, such as verb, singular noun/plural noun, adjective, determiner etc. Tagged texts are then parsed on the grounds of their grammatical structures (such as subject, verb, object, and as components of phrases); dependencies (dependency relations), specifically grammatical relations revealing dependency relations between words[47], are generated and phrase structure trees are thereby produced.

Through Stanford CoreNLP5, FLAIR can identify eighty-seven grammatical constructions including syntactical, lexical, and morphological aspects in the texts retrieved or uploaded (Chinkina and Meurers 2016: 190). The grammatical constructions can be identified at sentence level (questions, sentence types, clause types), part-of-speech level (verbs, negation, articles, quantifiers, adjectives, adverbs, pronouns, conjunctions, prepositions, and nouns), and academic vocabulary level. Each dimension at sentence and part-of-speech level can be further classified. For example, at sentence level, question types include Wh questions, Do questions, Be questions, have questions, yes/no questions, and tag questions; sentence types include simple, coordinate, subordinate and incomplete sentences; clause types include relative, adverbial, real conditional,

45. *nlp.stanford.edu/software/lex-parser.html*.

46. "A Part-Of-Speech Tagger (POS Tagger) is a piece of software that reads text in some language and assigns parts of speech to each word (and other token), such as noun, verb, adjective etc., although generally computational applications use more fine-grained POS tags like 'noun-plural'" (Toutanova, Klein, Manning, and Singer 2003), *https://nlp.stanford.edu/software/tagger.shtml*.

47. *universaldependencies.org/docsv1/u/overview/syntax.html*; *universaldependencies.org/docsv1/u/dep/index.html*.

unreal conditional, there is/are, and there was/were. Likewise, at part-of-speech level, verbs include tenses, aspect, time, voice as well as phrasal, modal, transitive, and imperative verb forms; furthermore, each subdimension includes other sub-subdimensions, such as contracted auxiliaries, full auxiliaries, auxiliaries, copula, -ing, to infinitive, emphatic do, irregular, and regular. FLAIR can also identify the complexity level for the texts on the basis of the Common European Framework levels (Council of Europe 2001).

Through the Stanford Shift-Reduce Parser, both shallow and deep analysis are carried out in FLAIR on the grounds of the grammatical constructions targeted (shallow analysis is sufficient, for example, to identify articles, prepositions, and quantifiers while deeper syntactic analysis is required for constructions such as conditionals and gerunds):

> NLP makes use of different approaches for characterizing language data, from shallow matching to deep grammar formalisms […]. While string matching can work for some basic cases (e.g., identification of articles), the detection of other constructions requires analyses going well beyond the surface level, such as an analysis based on syntactic dependencies (Chinkina and Meurers 2016: 190).

The distribution of the grammatical constructions selected by the users in FLAIR can be visualized through two kinds of interfaces. In FLAIR, users can thus analyze the main grammatical constructions of the parsed output through the interfaces provided. The main interface "consists of four elements – a settings panel, a search field, a list of results, and a reading interface, where the identified target constructions are highlighted" (Chinkina, Kannan and Meurers 2016: 9). The coding of the grammatical constructions can also be applied to compare two documents; in this case, the second interactive interface presents the distribution of the grammatical constructions in the two texts along two axes[48] (Chinkina, Kannan and Meurers 2016: 9). Through its output interface, FLAIR also enables readers to carry out close reading:

> A visualization that allows to close read a text requires that the structure of the text be retained in order to facilitate a smooth analysis. With additional information in the form of manual annotations or of automatically processed features of textual entities or relationships among them, a plain text can be transformed into a comprehensive knowledge source (Jänicke, Franzini, Cheema and Scheuermann 2015).

Both instructors and students, the latter conceived as active agents of their learning process, can use FLAIR to identify the distribution of the grammatical patterns targeted in the texts selected.

48. "Vertical axes represent parameters – linguistic forms, number of sentences, number of words and the readability score, and each polyline stands for a document having certain linguistic characteristics and thus, going through different points on the parameter axes" (Chinkina, Kannan, and Meurers 2016: 9).

2.4.2. Textalytic

Textalytic[49] is an OER NLP-based text analysis tool enabling users to analyze DIY (Do-It-Yourself) corpora using a web interface. Users can upload files to compile their own corpora, which Textalytic pre-processes and compiles; corpora can also be POS tagged. Through various text processing tools, Textalytic users can get the frequency of various language elements featured in the corpora investigated, such as personal pronouns, demonstrative pronouns, relative pronouns, conjunctions, subordinate clauses, relative clauses, interrogative sentences, prepositions, gerunds, nouns, adjectives, contractions, verbs, dates, and time. The frequencies of the targeted language constructs, visualized through bar charts, can be compared using a scatterplot. Furthermore, Textalytic retrieves the top occurring words, nouns, adjectives, verbs, and conjunctions; users can set the number of items to be retrieved. Textalytic also performs topic modelling, retrieves named entities, and extract dates and time. Analytical tools performing classification and clustering, such as Textalytic, can enable text investigation leading to topic modelling: "Classification and clustering techniques […] [inform] Topic Modeling […] [which] identifies clusters of words that could be the major 'topics' (distinctive terms that co-occur) of a large collection" (Rockwell and Sinclair 2016: 2656-2659). Users can export Textalytic search results in various formats.

2.4.3. Voyant

Voyant[50] is a computer-assisted textual and statistical analysis environment working on data extraction. Voyant, available as an Open Educational Resource, is suitable for fostering digital analytics-driven critical thinking carried out through exploration and interpretation of text-mined data: "'Thinking through' is an approach of understanding a phenomenon (thinking about it) through the practices of making, experimenting, and fiddling" (Rockwell and Sinclair 2016: 2584).

In Voyant, texts (either available online or uploaded) are tokenized[51] to enable algorithm-based text analytical tools to extract information suited to carrying out text-driven reflection (Rockwell and Sinclair 2016: 853). Voyant analytics tools aim to foster reflection while concurrently enhancing new insights; end users act as active and critical knowledge analysts (Rockwell and Sinclair 2016: 3477-3877). In particular, with Voyant, users can experiment with analytical reading of texts in an interactive and critical way (Rockwell and Sinclair 2016: 381). Through its analytical tools, Voyant enables users to carry

49. *www.textalytic.com*.

50. *voyant-tools.org*.

51. "Tokenization is the breaking apart of a text into smaller units that can be manipulated and counted" (Rockwell and Sinclair 2016: 899).

out computer-aided text analysis and specifically enhanced reading by exploring texts and thinking through them[52] (Rockwell and Sinclair 2016: 1016-1020). In this respect, the data retrieved with Voyant can promote students' interpretive processes including hypothesis formation and testing:

> Computers can […] help us try to formalize claims and to test them. […] We use the computer to model a text in both the sense of creating a representation and in the sense of manipulating that representation by creating interpretive tools that allow us to do both. […] [F]ormalizing processes can help in modeling our understanding of a text and exploring it in ways that can produce insights and interpretations that don't necessarily have to be formalized. […] Formalization, not quantification, is the foundation of computer-assisted interpretation. […] Digital analytics facilitate interpretive negotiation in new ways. Text analysis can enlarge a dialogue by providing formalizations for negotiation. […] The interpretive humanities are motivated […] by a desire to renew understandings through conversations with the text and with others about the text. Text analysis as an interpretive practice is about an ongoing conversation about the text, but with the artifice of computing (Rockwell and Sinclair 2016: 1032-3941).

Voyant text analysis tools provide data through information visualization which can contribute to the analysis and interpretation of disciplinary texts significantly while also making content cognitively easier to access (Rockwell and Sinclair 2016: 1175). In particular, by default, Voyant visualizes the data, retrieved from text analytical processing, through an interactive interface featuring five main text analytic tools (so called 'skins')[53]. The five skins "offer a selection of textual, tabular, and visual representations (charts, graphs, and networks) of the data" (Wright 2020: 3) (*Fig. 1*).

The first skin provides a word cloud (also called Cirrus), displaying the most frequent words in the text analyzed; the more frequent the words, the bigger they appear in the word cloud. In the second skin, Reader, the text investigated is available to read; Reader allows for close reading. The third skin, Trends, shows the distribution of the most frequently used words through a graph featuring the relative frequency of the targeted words; with the same tool, users can get a trend, namely raw and relative frequencies, for each word they select in the Reader[54]. In relation to Trends, users have to bear in mind that sometimes the data Trends produces might have to be checked with other kinds of data, such as those produced through topic modelling:

52. "Voyant provides 'skins' that combine tool panels into an interpretive environment to encourage […] exploration. These skins express one of our fundamental beliefs about text analysis: that it is not about replacing interpretation, but about enhanced reading. Voyant is meant to be ready at hand if you want to think through texts" (Rockwell and Sinclair 2016: 1016-1020).

53. *docs.voyant-tools.org/tools*.

54. *docs.voyant-tools.org/tools*.

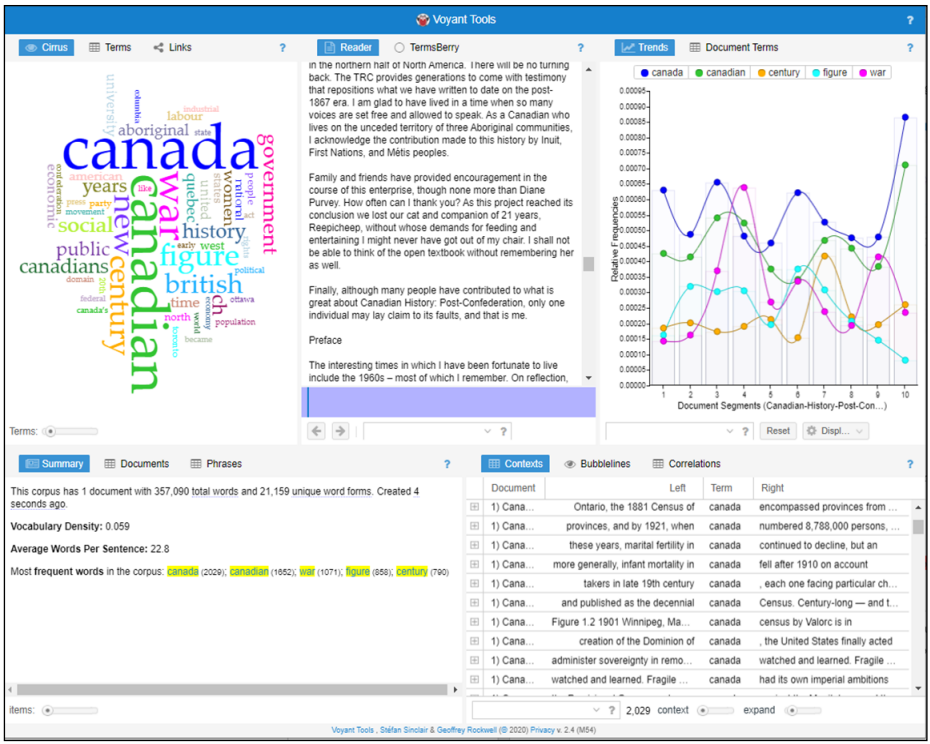

Figure 1: Voyant's five main skins

Distribution graphs suggest that word frequency is a reliable indication of a theme's significance, which is not necessarily true. […] [However,] distribution graphs can still illustrate something about how a theme might move through a text. First it is necessary to find a word (or a group of words) that is (or are) indicative of a theme. The trend line of the pattern can be used to help form hypotheses that can be checked by other means. A pattern that occurs more at the beginning and then slopes down may show an introductory theme; a pattern sloping up to the end might signify a gradual build-up that culminates in something noteworthy. One theme may fall when another rises; or perhaps themes rise and fall together, suggesting an interesting correlation (Rockwell and Sinclair 2016: 980-1000).

In the Summary, the fourth skin, information about the text analyzed is available, such as the number of word tokens[55], lexical density[56], and

55. "'Token' refers to single occurrences of running words in a text […], as opposed to word 'types', i.e. unique word forms" (Hoffmann *et al*. 2008: 273).

56. "When looking at texts and corpora we can think about how different words (types) are used to communicate meanings. Some words (especially grammatical words) are often repeated,

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keywords[57]. The fifth skin, Context, features searchable concordances[58] of the words used in the text; collocations[59] and collocates can thus be investigated at the lexicogrammar level.

Other tools that are similar in purpose and scope to the skins illustrated thus far are available in Voyant. For example, Bubblelines show the distribution of specific words throughout a whole document by means of colored bubbles whose size represents the frequency of the targeted words (Rockwell and Sinclair 2016: 1154). Colored bubbles are positioned along lines visualizing the text, automatically divided into equal parts during processing (Rockwell and Sinclair 2016: 1154).

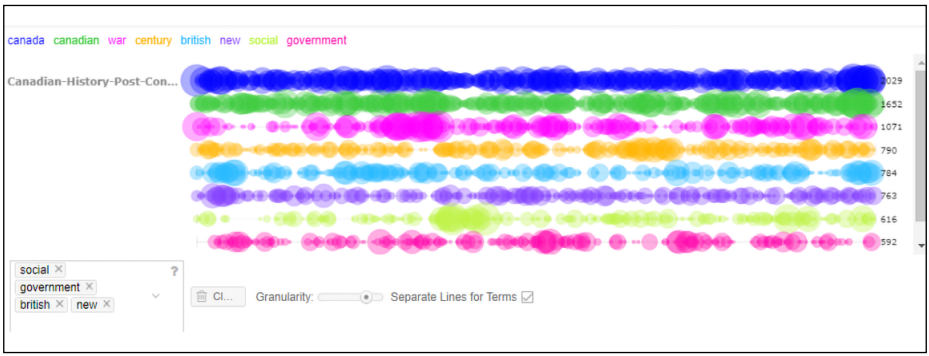

Figure 2: Bubblelines

others are used only a few times. To measure whether overall a text or corpus uses a wide range of vocabulary or only a limited range of lexical items which get recycled, we can calculate a lexical diversity statistic (Jarvis 2013). The simplest lexical diversity statistic is the type/token ratio […]. Type/token ratio (TTR) expresses the proportion of types (different word forms) relative to the proportion of tokens (running words). The idea is that a larger number of different word forms (types) relative to the number of all words in text (tokens) points to a lexically more varied text. […] However, we have to remember that the type/token ratio is very sensitive to the length of the text; it decreases as the text becomes longer and more words get used again (recycled)" (Brezina 2018: 76-77).

57. "Keywords are words that are considerably more frequent in one corpus than in another corpus; we can therefore say that keywords are words that are typical of the corpus of interest when compared to another corpus. However, it is important to remember that 'keywords' is a relative term depending on the differences in lexical frequencies in the two corpora in question. Keywords are important when identifying key concepts in discourses, typical vocabulary in a genre/language variety, lexical development over time etc." (Brezina 2018: 98-99).

58. "Concordance[.] A listing of all the occurrances in the corpus of the query item, together with some surrounding context in the form of words to the left and right. […] In KWIC view (i.e. Key Word in Context view), each matching example is displayed on a single line, and the search item appears as node in a fixed, central position" (Hoffmann *et al*. 2008: 264).

59. "Collocation[.] The abitual co-occurrence of words/linguistic items in close proximity to one another" (Hoffmann *et al*. 2008: 264).

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Through a tree-type visualization, Word Trees provide the most common collocates of the word investigated. Instructors can decide to make students familiarize with the concept of collocations by using Voyant-produced word trees (*Fig. 3*).

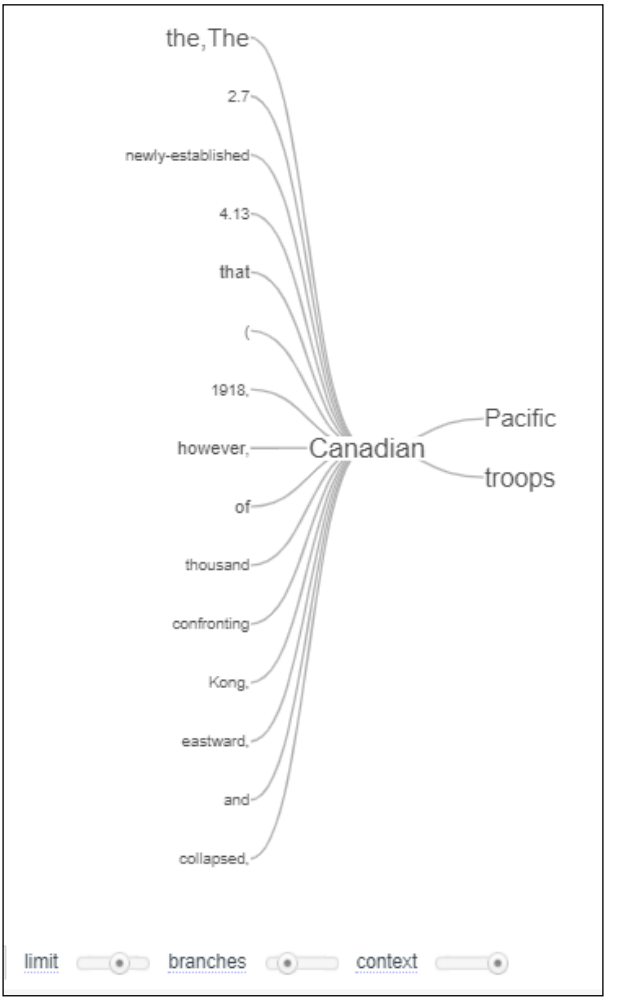

Figure 3: Word Tree

Another tool is TermsRadio, which "provides a scrolling line graph that can depict the change of the frequency of a word across a corpus spread over time"[60] (*Fig. 4*).

60. *docs.voyant-tools.org/tools*.

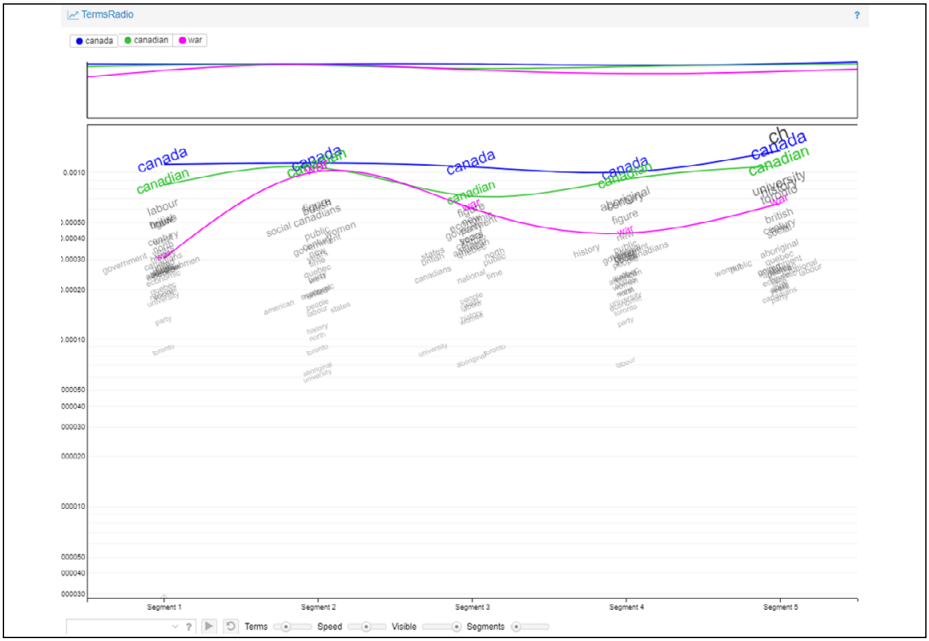

Figure 4: TermsRadio

TextArc, a dynamic tool (*Fig. 5*), is suitable for enabling students to get an overview of a text:

[an] example of rich text visualization is Bradford paley's TextArc (*textarc.org*), where words from a text are actually displayed twice, once in linear order arranged around the perimeter clockwise from the top […], and then again by plotting each content word within the circle as if each occurrence in the perimeter pulled the terms toward it gravitationally […]. As a result, the location of the word conveys information about its distribution in the document (Sinclair and Rockwell 2016: 286).

Text Arc is especially suitable for hypothesis formation:

TextArc is a tool designed to help people discover patterns and concepts in any text by leveraging a powerful, underused resource: human visual processing. It compliments approaches such as Statistical Natural Language Processing and Computational Linguistics by providing an overview, letting intuition help extract meaning from an unread text. […] TextArc represents the entire text as two concentric spirals on the screen: each line is drawn in a tiny (one pixel tall) font around the outside, starting at the top; then each word is drawn in a more readable size. […] Frequently used words stand out from the background more intensely[61].

61. *www.visualcomplexity.com/vc/project.cfm?id=5*.

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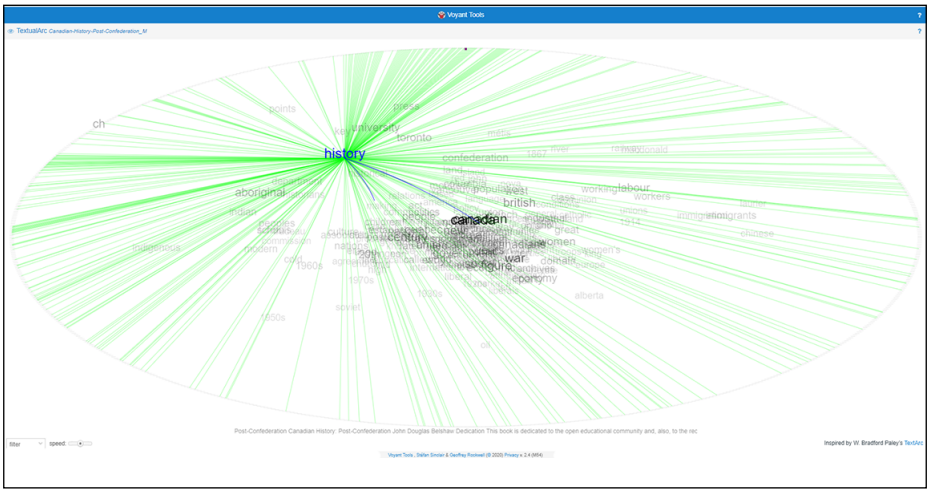

Figure 5: TextArc

Voyant panels, created as ubiquitous analytics[62], can be exported and embedded in online learning environments:

The panels can be individually embedded; they can be used to explore the text and can expand back to the original Voyant environment, which is how ubiquitous analytics should work. […] [Voyant is] an ecology in which the results of text analysis can be woven directly into the textual interpretations by users. Voyant allows text representation and analysis to intertwine, not around the primary source, but in the resulting research (Rockwell and Sinclair 2016: 1496-1500).

Overall, Voyant-driven computational text analysis enables students' deeper engagement with texts, leading to deeper understanding:

Digital text analysis encourages a new form of dialogue. Digitally enabled hermeneutical practices involve formalizing claims, or parts of claims, so they can be shared and verified. […] [T]ext analysis is not an answer or a theory. […] [T]ext analysis […] [is] a method (or performance) of questioning, a thinking through […]. We experience[…] new readings through re-examination (Rockwell and Sinclair 2016: 3921-3924).

So far, Voyant has just started to be used in language learning mainly focusing on vocabulary items and writing (Warschauer, Yim, Lee and Zheng 2019).

62. "To be truly ubiquitous […] interpretive tools have to integrate themselves into the research cycle, so as to be useful to researchers as they study text and as they publish their interpretations" (Rockwell and Sinclair 2016: 1492).

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2.4.4. KWords

KWords[63] is an OER web-based software devised to retrieve keywords, i.e. "those [words] whose frequency is unusually high in comparison with some norms" (O'Keeffe, McCarthy and Carter 2007: 12), from DIY (Do-It-Yourself) corpora in English (and Czech). When carried out in a content-specific corpus, a keyword search usually results in retrieving subject-specific terminology. When investigating disciplinary corpora, keywords are in fact highly likely to belong to "the salient domain-specific lexico-grammatical features of the texts or corpora analyzed" (Carloni 2016: 35).

KWords retrieves keywords, also provided through word clouds, by comparing the relative frequency of tokens in users' DIY corpora with the relative frequency of tokens in a reference corpus, such as the BNC (British National Corpus)[64] and COCA (Corpus of Contemporary American English)[65] or a corpus uploaded by users:

Figure 6: Keywords of "Female Immigrants and the Canadian State, 1860s through the 20th century" (Belshaw 2016)

KWords fosters corpus-driven research, namely end users analyze the data retrieved from corpus investigation to formulate hypotheses on how language

63. *kwords.korpus.cz*.
64. *www.natcorp.ox.ac.uk*.
65. *www.english-corpora.org/coca*.

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works (Carloni 2016: 38). Students' critical thinking moves to a more advanced level through corpus-driven research. KWords also identifies how keywords are interrelated and makes their in-text semantic interconnections available to users through visualization[66]:

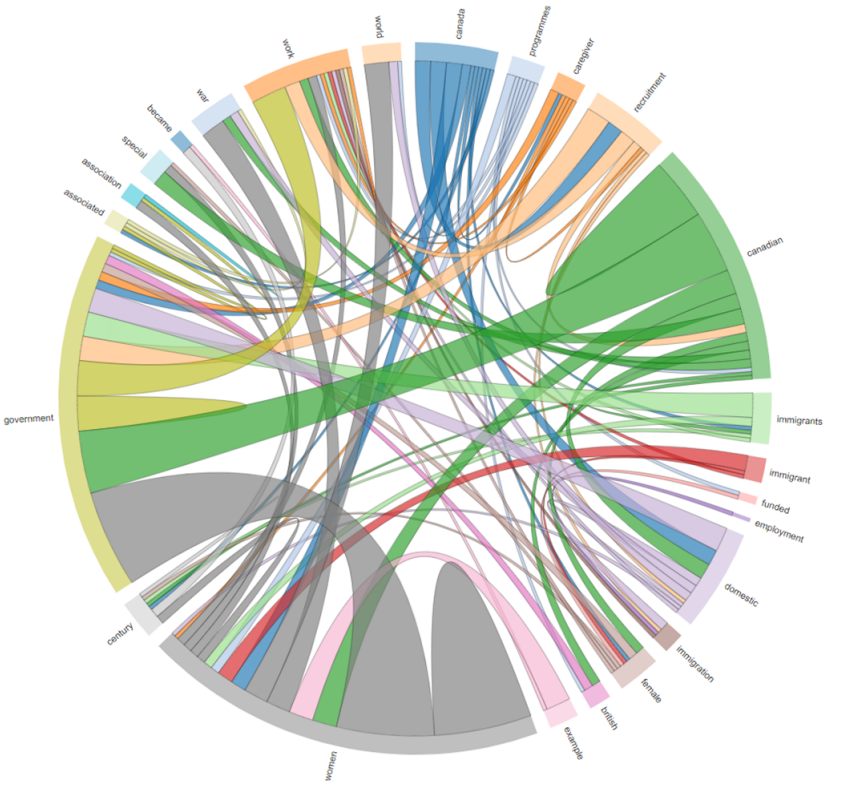

Figure 7: Interrelationships between the keywords of "Female Immigrants and the Canadian State, 1860s through the 20th century" (Belshaw 2016)

66. *wiki.korpus.cz/doku.php/en:manualy:kwords#thematic_concentration*.

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3.

ENGLISH-TAUGHT PROGRAMS AND DIGITALLY-ENHANCED LANGUAGE AWARENESS

3.1. CLIL in higher education

3.1.1. CLIL

Content and Language Integrated Learning (CLIL) is a content-driven approach targeted at teaching disciplinary content through the medium of an additional language (Mehisto, Marsh and Frigols 2008; Coyle, Hood and Marsh 2010). In CLIL, the term 'additional language' refers to any language, such as a foreign, a second or a minority language, except the mother tongue (Marsh 2002: 17). This dual-focused approach, which is aimed at both content and language acquisition, "calls for the development of a special approach to teaching, in that the non-language subject is not taught in a foreign language but with and through a foreign language" (Eurydice 2006: 7). To achieve the dual objective, the implementation of language-supportive methodologies along with an array of content instructional practices is necessary (Coyle, Hood and Marsh 2010; Marsh and Frigols Martín 2012; de Graff 2016; Coyle 2020).

The CLIL learning environment developed in Europe in the 1990s (Eurydice 2006: 8). The European-centered didactic paradigm addressed the increasing urge to develop multilingualism, multiculturalism, and foreign language learning/teaching practices in the European Union (EU) (Marsh 2002; Morton and Llinares 2017).

CLIL is an umbrella construct which includes various approaches and pedagogical practices integrating content and language development to different degrees (Marsh 2008; Mehisto, Marsh and Frigols 2008; Coyle, Hood and Marsh 2010; Dalton-Puffer, Nikula and Smit 2010; Lin 2016; Morton and Llinares 2017). CLIL may also include immersion (Mehisto, Marsh and Frigols 2008; Cenoz, Genesee and Gorter 2013) although Eurydice provides a stricter definition where immersion is not included (2006: 8). Pinpointing the differences between CLIL and the various types of immersion has in fact often

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been a challenge (Cenoz, Genesee and Gorter 2013; Cenoz 2015; Lin 2016)[1]. A sub-distinction of CLIL refers to weak and strong CLIL programs. In weak CLIL programs, content subject materials are used to teach a foreign language, thereby pursuing language objectives in language teaching environments; in strong CLIL programs, instead, the additional language serves as the medium of instruction and both content and language development are targeted in the discipline-specific learning environments implemented (Cenoz 2017: 241).

Overall, CLIL is envisioned as a flexible learning environment which can be adapted to the needs and characteristics of the educational contexts in which it is implemented (Mehisto, Marsh and Frigols 2008; Coyle, Hood and Marsh 2010).

3.1.2. English-Taught Programs

Over the past two decades, an ever-increasing number of higher education institutions have been offering disciplinary courses and/or entire degree programs in an additional language, mainly English, in Europe (Wächter and Maiworm 2014; Dearden 2015; Dafouz and Smit 2017; Wilkinson 2018). English-Taught Programs (ETPs) are Bachelor and/or Master degree programs taught entirely in English; degree programs where English is studied as a subject, such as in foreign language degree programs, are not usually considered ETPs (Wächter and Maiworm 2008: 18-19). The development of English-Taught Programs in higher education has especially been fostered by the European Higher Education Area policy which "has greatly strengthened this view of universities as global institutions, whose main aims include student and staff mobility, curricular harmonization, and international research collaboration" (Dafouz and Smit 2016: 397)

The development of ETPs is mainly the result of globalization processes encouraging internationalization[2] in higher education (Henriksen, Holmen and Kling 2019: 13). Teaching content subjects through the medium of an additional language, especially English, has steadily increased in European universities characterized by multicultural and multilingual contexts (Henriksen, Holmen

1. "Our examination of the definition and scope of the term CLIL both internally, as used by CLIL advocates in Europe, and externally, as compared with immersion education in and outside Europe, indicates that the core characteristics of CLIL are understood in different ways with respect to: the balance between language and content instruction, the nature of the target languages involved, instructional goals, defining characteristics of student participants, and pedagogical approaches to integrating language and content instruction" (Cenoz, Genesee, and Gorter 2013: 13).

2. The distinction between internationalization and globalization follows: "internationalisation […] describes a process of intensifying exchange between nations (or other securely internationalized organizations and agencies), most of which occurs within the public domain. [Globalisation] describes the progressive integration of economic structures within global (but also volatile) arrangements and the homogenisation (but also hybridisation) of distinctive national cultures, both of which occur largely in the private domain" (Scott 2011: 61).

and Kling 2019: 42). In this respect, a divide has emerged between Northern and Southern Europe. The Nordic and Baltic countries, along with the Netherlands, have developed a much higher number of degree programs in English, attended by both domestic and international students, in comparison with the other European countries (Wächter and Maiworm 2014: 27). Students' higher English proficiency in Northern Europe and the Netherlands is likely to have promoted the development of ETPs in these areas (Henriksen, Holmen and Kling 2019: 42). Students' lower English proficiency in Southern Europe represents instead a challenge for ETPs (Wächter and Maiworm 2014: 98).

ETPs may be the result of top-down and/or bottom-up decision-making processes. In general, institutions rarely produce official language policies (LPs) focusing on the role of language in relation to courses and/or degree programs taught in an additional language unless challenges emerge (van der Walt 2013: 13), which reveals how subsidiary language is considered in comparison with content in these contexts. For example, in the Nordic area, where students are expected to develop high levels of competence in English to manage content-specific concepts in ETPs, challenges related to the increasing use of English have emerged, such as the fear that national languages may lose ground in subject-specific and academic discourses (Henriksen, Holmen and Kling 2019: 14). Interestingly, to address the issue and manage the use of various languages (especially English) along with the national language, the Nordic area has conceptualized the parallel language use construct which "refers to the concurrent use of two or more languages in a situation where none of the languages abolish or replace each other" (Henriksen, Holmen and Kling 2019: 18).

3.1.2.1. Types of ETPs and EMEMUS

In ETPs, the focus is usually on content knowledge development while language awareness is not likely to be an explicit objective. Overall, ETPs have increased significantly during the last two decades, not only in Europe but also worldwide, developing a global perspective while, at the same time, catering to the multifarious characteristics of local contexts (Dafouz and Smit 2017: 287).

Teaching disciplinary content through an additional language (especially English) in higher education has been defined in various ways: Content and Language Integrated Learning (CLIL) (Smit and Dafouz 2012; Fortanet-Gomez 2013); Integrating Content and Language in Higher Education (ICLHE) (Smit and Dafouz 2012; Bradford and Brown 2017; Valcke and Wilkinson 2017); English-Medium Instruction (EMI) (Dafouz and Camacho-Miñano 2016; Bradford and Brown 2017; Macaro *et al*. 2018; Henriksen, Holmen and Kling 2019); and English-Medium Education in Multilingual University Settings (EMEMUS) (Dafouz and Smit 2016, 2020).

Overall, however, there is not a complete consensus on the various definitions of curricular subject teaching through English at tertiary level (Macaro *et al*.

2018: 46). In this respect, Dafouz and Smit's English-Medium Education in Multilingual University Settings (EMEMUS) represents a recent attempt to devise a framework which includes the multifarious and complex variables affecting the implementation of ETPs in multilingual higher education contexts; EMEMUS does not endorse any specific pedagogical practice (2016: 398-399).

Informed by a sociolinguistic, dynamic and transnational view of increasingly shifting spaces, EMEMUS is a framework consisting of six interconnected discourse-based dimensions, designed to conceptualize the social, discourse-focused, multifaceted and ever-evolving nature of English-Medium Education (EME) at the macro, meso, and micro levels (Dafouz and Smit 2016: 397-400).

The EMEMUS framework consists of six discourse-centered dimensions conceptualizing the various components affecting ETPs:

> Roles of English (in relation to other languages) (RO), Academic Disciplines (AD), (language) Management (M), Agents (A), Practices and Processes (PP), and Internationalization and Glocalization (ING). We will refer to it by the acronym made up of the initial letters of the dimensions: ROAD-MAPPING (Dafouz and Smit 2016: 408-409).

Within an ecological conceptualization of multilingual education, the EMEMUS framework claims that English as an additional language (the Roles of English dimension) is likely to have a more prominent role than other languages in university language policies due to its widespread use in research and instructional practices worldwide (Dafouz and Smit 2016: 403-404). In particular, English-Medium Education (EME) is conceived as targeted at fostering the acquisition of subject-specific content and the concurrent development of discipline-specific literacies through content-specific practices (Academic Disciplines dimension) (Dafouz and Smit 2016: 405). In this context, pedagogical practices and assessment formats emerge as directly affected by the epistemological features of the various disciplines. The way disciplinary epistemologies affect teaching/learning and assessment practices is pivotal in ETPs (Dafouz and Smit 2017: 290). Disciplines[3] have various interconnected components, such as "modes of knowledge production[,] […] epistemology and social aspects of knowledge communities" (Neumann 2009: 487-490). Biglan in particular has devised a widely adopted three-dimension framework to classify knowledge constructs (1973: 207):

1. Hard-soft: the degree to which there is a shared inquiry paradigm.
2. Pure-applied: the concern for application to practical problems.
3. Life-non-life: the extent of orientation to living organisms (Neumann 2009: 492).

3. Disciplines can be defined as "an association between knowledge and learning and instruction within an organization, typically a university" (Neumann 2009: 487).

The various dimensions of disciplines refer to the way experts construct and convey knowledge in the academic community. These epistemological aspects emerge in the way the content subject is presented and the most prominent cognitive objectives are pursued, as well as the type of assessment implemented (Neumann 2003: 228). Disciplinary knowledge is consistently changing and, as a result, content-specific discourse practices are in constant flux (Neumann 2009: 490). At university level, content instruction implies not only fostering subject-specific content acquisition but also enabling students to become competent in professional discourse practices (Neumann 2009: 488). In this perspective, the development of disciplinary knowledge and academic literacies is pivotal in ETPs where subject-specific content is delivered through the medium of an additional language (Dafouz and Smit 2016; Coyle 2020). In these contexts, an approach fostering the development of genre-based subject-specific literacies focusing on the discursive dimensions of content-specific discourses seems especially suitable (Dafouz and Smit 2016: 405). In ETPs, it seems crucial to make the English culture-specific paradigms of disciplinary discourses explicit also in order to avoid the implicit development of an English-only conceptualization and theorizing framework (Dafouz and Smit 2016: 405-406).

In ROAD-MAPPING, Language Management refers to how language policies are handled at national, university, and classroom level (Dafouz and Smit 2016: 406). In particular, in EME, various institutional and individual Agents (such as departments, administrative staff, teachers, and learners) are involved with language policy development and implementation (Dafouz and Smit 2017: 290). Challenges are thus likely to emerge when stakeholders, such as content and language experts, need to collaborate to reach shared objectives, such as the concurrent development of content and language knowledge (Dafouz and Smit 2016: 406).

In terms of Practices and Processes, EMEMUS is operationalized through multifaceted context-dependent teaching/learning practices informed by a socio-constructivist view of knowledge building; in this context, the issue of content-specific literacy development takes center stage (Dafouz and Smit 2016: 407-408).

Within the ROAD-MAPPING framework, the Internationalization and Glocalization (ING) dimension highlights the necessity for tertiary education to develop guidelines and practices, such as internationalized curricula, suitable for catering to multilingual contexts by interconnecting global dimensions with local characteristics (Dafouz and Smit 2016: 408). The development of internationalized curricula, virtual mobility and Internationalization at Home (IaH), analyzed later in this work, falls within this dimension.

3.1.3. Forms of integration of language and content in ETPs

The English-medium Paradigm represents the latest attempt to classify the various types of English-Taught Programs, in non-Anglophone countries, on the basis of English-medium pedagogies (Schmidt-Unterberger 2018). As research

shows, CLIL educational contexts need to be examined in terms of subject-specific dimensions especially in relation to the extent to which content and language are integrated through teaching and learning practices (Cenoz 2017: 246). To classify English-medium education, especially in relation to English-medium language pedagogy, the paradigm focuses on the way and the extent to which explicit teaching of content-specific language, academic language, and subject-specific genres is implemented in EMI settings (Schmidt-Unterberger 2018: 529). The paradigm analyzes in particular the way and the degree to which language objectives are integrated into programs and/or disciplinary courses and at which level, i.e. whether at class, curriculum, and/or program level. The paradigm also zeroes in on the content and language pedagogies that content experts and language specialists adopt respectively, along with the types of collaboration occurring between content and language experts (Schmidt-Unterberger 2018: 531).

In EMI, explicit language teaching is not perceived as a requirement at program design level although students appear to struggle to achieve, unassisted, the language competence necessary to manage discipline-specific knowledge (Airey 2011b; Fortanet-Gómez 2011; Swerts and Westbrook 2013; Wächter and Maiworm 2014; Henriksen, Holmen and Kling 2019). At the same time, at class level, content experts do not usually feel language awareness as their responsibility (Airey 2012; Costa 2012; Lasagabaster 2018). Highlighting the rooted connection between language development and content knowledge production, Schmidt-Unterberger advocates the combination of English-Taught Programs and explicit language teaching through ESP (English for Specific Purposes) and/or EAP (English for Academic Purposes) (2018: 530). The English-medium Paradigm illustrates in particular various combinations of English-taught disciplinary courses and language awareness. The English-medium paradigm includes five kinds of explicit language instruction forms, integrated to various degrees into English-Taught Programs worldwide: "Pre-sessional ESP / EAP, Embedded ESP / EAP, Adjunct ESP, EMI and ICLHE" (Schmidt-Unterberger 2018: 531). In this context, it is important to mention that thanks to Schmidt-Unterberger's English-medium Paradigm, the language dimension in English-Taught Programs has recently come to the fore with striking force.

Drawing on students' prior subject-specific knowledge, the ESP instructor fosters the development of content-specific vocabulary and genre competences; on the other hand, through English for Academic Purposes, language specialists enable students to acquire cross-disciplinary academic skills, such as giving presentations, taking notes, and writing essays (Schmidt-Unterberger 2018: 530). In order for all students to enter disciplinary courses in ETPs with the same language proficiency, pre-sessional ESP/EAP classes, tailored to the needs of a specific program, may be offered before the beginning of the English-taught subject courses (Schmidt-Unterberger 2018: 531). In this context, content experts are expected to collaborate with language specialists to

devise customized pre-sessional ESP/EAP classes suitable for helping students develop the skills necessary to accomplish the content objectives featured in the disciplinary course syllabi (Schmidt-Unterberger 2018: 531). Pre-sessional ESP/EAP classes may however convey implicit messages. In particular, delivering language courses before content courses can lead stakeholders to think that subject-specific literacy development is not as important as content development since language is not fully integrated into the disciplinary courses (Schmidt-Unterberger 2018: 532). Offered at program level, embedded ESP/EAP classes are instead program-customized courses, taught concurrently with disciplinary courses; embedded ESP/EAP classes, designed as an integral part of the English-medium curriculum, are likely to make stakeholders perceive language development as a key dimension of English-taught disciplinary courses (Schmidt-Unterberger 2018: 531-533).

An adjunct ESP course is customized for a specific disciplinary course. Using materials taken from the targeted disciplinary course, every adjunct ESP course focuses on the content-specific language and genres of the disciplinary class targeted (Schmidt-Unterberger 2018: 534). The adjunct ESP course and the combined disciplinary course are taught concurrently. Adjunct ESP courses can cater to the previously established and on the fly language-specific needs of discipline-specific courses; thanks to adjunct ESP courses, content experts do not have to worry about nor work on subject-specific literacies (Schmidt-Unterberger 2018: 534). Providing adjunct ESP courses may represent, however, a challenge for program designers due to the close collaboration required between content experts and language specialists (Schmidt-Unterberger 2018: 533).

The main difference between EMI and ICLHE (Integrating Content and Language in Higher Education) consists in the absence in EMI and the presence in ICLHE respectively of explicit language objectives and language awareness practices integrated into disciplinary courses. In EMI, content experts teach content through the medium of English, but language aspects are not taught explicitly since language learning is expected to occur incidentally. In particular, in EMI, English is mainly seen as a medium of instruction and rarely considered as an object of study (Coleman 2006; Costa 2016; Pecorari and Malmström 2018; Schmidt-Unterberger 2018), which entails that language learning is conceived as incidental (Schmidt-Unterberger 2018: 534). If language-supporting methodologies are implemented somehow in EMI, they are only subsidiary, while in CLIL both content and language development are explicit learning objectives. In ICLHE, a dual objective, namely content knowledge and language development, is thus pursued explicitly (Schmidt-Unterberger 2018: 534) through the integration of systematic language awareness into the programs and/or courses (Lin 2016: 146-147). The need to integrate explicit language instruction into ETPs has been increasingly advocated also due to some detected shortcomings, such as students' low language proficiency, slightly higher drop-out rates, and lower grades (Swerts and Westbrook 2013;

Wächter and Maiworm 2014; Ament and Pérez Vidal 2015). However, ICLHE often seems to end up being EMI since language awareness is not actually implemented and language objectives are thus not pursued (Unterberger 2014; Lin 2016; Schmidt-Unterberger 2018).

The need for scaffolding language development along with content development has become increasingly apparent in ETPs (Rose, Curle, Aizawa and Thompson 2019; Bond 2020) along with the necessity of providing ETP instructors with suitable CLIL methodological training (Macaro 2018; O'Dowd 2018; Dafouz and Smit 2020). Interestingly, in this respect, stakeholders also perceive the need to adopt new teaching practices in EMI contexts to shift from transmissive to more interactive teaching resources and to cater to students' needs in terms of disciplinary literacy development in English (Henriksen, Holmen and Kling 2019: 14-20). As previously mentioned, to foster the development of students' disciplinary literacies in ETPs, content experts can pursue content and language outcomes on their own in class through language awareness, or they can collaborate with language experts to various degrees. Overall, jointly planned adjunct ESP classes have been perceived as the most feasible model by stakeholders, especially because content experts are not likely to feel explicit language teaching as part of their responsibility (Henriksen, Holmen and Kling 2019: 21). A solution to the lack of language awareness detected in EMI has been mainly the implementation of adjunct ESP and/or pre-sessional ESP/EAP classes thus far (Schmidt-Unterberger 2018: 534). In this light, to design explicit language instruction targeted at the development of disciplinary literacy, language specialists need to work with content specialists to identify challenging subject-specific language structures for students (Airey 2011b; Unterberger 2014).

Students' development of disciplinary literacy needs to be an explicit learning outcome in ETPs in order for learners to develop "the ability to appropriately participate in the communicative practices of a discipline" (Airey 2011a: 3). To plan language awareness in ETPs, content experts' perceptions of the role of content-specific literacies in knowledge construction need to be taken into account (Airey *et al*. 2017: 571). In this respect, besides developing ETP-specific classroom management and lecturing skills (Costa 2016), content experts need to be sensitized to the necessity for ETP students to develop content-specific literacies instrumental in content knowledge construction (Schmidt-Unterberger 2018: 36). Since epistemological constructs vary across disciplines, content specialists need thus to be able to identify the content-specific language features pertaining to their disciplines.

Fostering the development of content-specific literacies in the additional language is instrumental in modeling an effective content and language integrated teaching approach in ETPs while also providing students with the skills necessary to build disciplinary knowledge. The present work aims to elaborate on this dimension while at the same time devising digitally-enhanced language awareness suitable for flexible learning.

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3.2. Systemic Functional Linguistics and CLIL

3.2.1. Language as a meaning-making process and CLIL

Research has highlighted how providing students only with exposure to subject-specific content in an additional language without implementing language awareness is not enough to foster high levels of language development (Lyster 2007; Lightbown 2014). In this respect, the integration of content and language instruction has been increasingly identified as instrumental in fostering effective content and language development (Lyster 2007[4]; Coyle, Hood and Marsh 2010; Lyster 2017a; Coyle 2020).

The integration of content and language through language awareness represents a key dimension of CLIL learning environments where learners engage with authentic input featuring complex subject-specific language. In this respect, implementing language awareness while students are engaged in content learning in the target language is pivotal:

> Educators may believe that students should focus on science or mathematics while they are in the science or mathematics class, reserving the focus on language for a separate lesson. Such separation may deprive students of opportunities to focus on specific features of language at the very moment when their motivation to learn them may be at its highest (Lightbown 2014: 48).

To foster students' high levels of language competence in CLIL contexts, instructors thus need to integrate content and language development through language-supportive methodologies during content classes (Allen, Swain, Harley and Cummins 1990; Lyster 2007; Lightbown 2014; Lyster 2017a).

In CLIL environments, language awareness may focus on various language aspects, such as cognitive discourse functions specific to disciplinary discourses (e.g. defining, classifying etc.), subject-specific language, and genre-specific features including logical relationships (e.g. cause/effect, comparison etc.) (Dalton-Puffer 2013; Lyster 2017a; Dalton-Puffer *et al.* 2018; Morton 2020).

A view of language as deeply intertwined with meaning-making processes seems to be especially suitable for integrating language awareness into CLIL learning environments effectively: "CLIL needs an approach which moves beyond structural aspects of L2 proficiency" (Coffin 2017: 101). Systemic Functional Linguistics (SFL), along and in keeping with a Vygotskian view of language

4. To foster content and language development concurrently in a content class, Lyster has advocated a counterbalanced approach pursuing both content and language objectives through proactive and reactive practices (2007: 44-48). Proactive activities entail engaging learners in planned subject-specific language noticing and awareness processes followed by practice activities while reactive practices refer to instructors' subject-specific language feedback provided to students on the fly during classroom instruction (Lyster 2007: 44-48).

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learning pedagogy[5] (Vygotsky 1978; Lantolf 2000; Lantolf and Thorne 2006), can address this need successfully. SFL envisages in fact language (and subject-specific literacy in particular) as a meaning-making process, i.e. as a process underpinning content knowledge development (Forey and Polias 2017: 146):

> The distinctive characteristic of human learning is that it is a process of making meaning – a semiotic process; and the prototypical form of human semiotics is language. Hence the ontogenesis of language is at the same time the ontogenesis of learning (Rose and Martin 2012: 18).

It is the view of language as meaning making (rather than as a set of rules) which makes SFL suitable for CLIL environments where content and language development needs to be promoted in an integrated way (Whittaker 2010; Llinares and McCabe 2020). In SFL, meaning making in academic settings entails in fact language development in terms of subject-speficic literacies, such as genre and lexigrammar (Llinares and McCabe 2020: 1). Within an SFL framework, language and content are conceived as deeply intertwined (Martin 2009: 21) since it is through language that interactants make sense of (i.e. construe) experience (Rose and Martin 2012: 20). Thus, SFL emerges as suitable for CLIL environments also because it goes beyond applying second language acquisition theories to content learning by adopting an approach focusing on both content subject development and subject-specific literacy (Macaro 2020).

In SFL (the language) system and text, namely the two ends of a cline, interface through the instantiation process, underpinning text production (Halliday and Matthiessen 2014; Bartlett and O'Grady 2017; Miller 2017). On the instantiation cline, the system represents the potential of the language while instantiation is the process responsible for producing instances of the potential of the system, i.e. texts (Halliday and Matthiessen 2014; Bartlett and O'Grady 2017; Miller 2017). Texts are thus instances of the potential of the language system (Halliday and Matthiessen 2014: 27). It this light, it is the underpinning system of language, from which texts are instantiated, which holds the potential for meaning making (Halliday and Matthiessen 2014: 27).

In SFL, language is the result of the interrelations of four meaning-making strata where semantics and lexicogrammar make up the content plane (semantics is the stratum above lexicogrammar) while phonology (the stratum below lexicogrammar) and phonetics (the stratum below phonology) make up the expression plane (Halliday and Matthiessen 2014: 25-26). It is through the interstratal interplay of the four language strata (semantics, lexicogrammar, phonology, and phonetics) that language informs meaning-making processes which perform two main functions, namely they construe experience (i.e. make sense of experience) and enact interactants' social relationships (Halliday and Matthiessen 2014: 30).

5. See chapter 1.

It is in particular by means of semantics that language interacts with the context (Halliday and Matthiessen 2014: 42). From this vertical stratal view of the language system, semantics interfaces with a lower stratum of the language system, namely lexicogrammar, which builds meaning through the integration of linguistic components, i.e. vocabulary and grammatical structures (Halliday and Matthiessen 2014: 43). In lexicogrammar, vocabulary and grammatical structures interconnect along the same stratum, which is the continuum where vocabulary and grammar represent the two poles (Halliday and Matthiessen 2014: 24). At the lexicogrammatical level, wording occurs while interfacing with semantics above and phonology below, thereby enacting a three-level (trinocular) perspective (Halliday and Matthiessen 2014: 48). In lexicogrammar, in addition to intertwining with the semantic level above, words are also interconnected with elements from their own level through collocational and colligational[6] processes (Halliday and Matthiessen 2014: 59). In brief, through the interstratal relationships, phonological or graphological patterns generate lexicogrammatical wording patterns at clause level while at the same time lexicogrammatical wording patterns produce discourse meaning patterns at clause and text level; a text is thus the product of patterns of patterns occurring at various levels (Rose and Martin 2012: 21). The systemic dimension of SFL relies on the concept of language as the result of selection among meaning-making options at the various strata[7] (Martin 2009: 21). Bartlett and O'Grady outline the vertical relationships between the strata as follows:

> There is a non-arbitrary relationship between strata with, for any pair of adjacent strata, the lower stratum construing the higher, while the higher stratum activates the lower (with the bidirectional concept of realization conflating both processes). So, for example, lexicogrammatical elements, with their own meaning, combine to construe the semantics of the text, with the various semantic features construing the context as a form of social action. Conversely, the context activates semantics, which then activate[s] lexicogrammatical form. Thus one way of following the architecture of the theory is via the realization of one category by another (2017: 49).

In SFL, grammar is considered functional because it is viewed as a meaning-making process in social contexts (Halliday and Matthiessen 2014; Banks 2019). In this light, genre is conceived as a

> 'staged, goal-oriented, social process' – social because we are inevitably trying to communicate with readers […], goal-oriented because we always have a purpose for

6. "Colligation. A co-occurrence relationship between a word and a grammatical category or construct" (McEnery and hardie 2012: 240).

7. "SFL is called systemic because […] it foregrounds the organisation of language as options for meaning. In this view, the key relations between the elements of language are relationships of choice – basically between what you say and what you could have said instead if you handn't decided on what you did say" (Martin 2009: 21).

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writing and feel frustrated if we do not accomplish it, and staged because it usually takes us more than one step to achieve our goals (Rose and Martin 2012: 54).

In SFL, meaning-making thus takes center stage in language and grammar conceptualization; in this respect, lexicogrammar is functional because it is conceived as a meaning-making system rather than as a set of language structures (Halliday and Matthiessen 2014: 10). In SFL, language and grammar are networked systems grounded in meaning-making choices (Halliday and Matthiessen 2014: 49). In this perspective, constituency informs the compositional structure of language: "larger units are made up out of smaller ones […]. We refer to such a hierarchy of units, related by constituency, as a rank scale, and to each step in the hierarchy as one rank" (Halliday and Matthiessen 2014: 5). Units are made up of one or more units belonging to the rank – "Rank refers to levels of structure within a single stratum" (Bartlett and O'Grady 2017: 49) – below while more units of the same rank can create complexes, such as clause and phrase complexes (Halliday and Matthiessen 2014; Berry 2017). In terms of English-specific lexicogrammatical rank scales, for example, clauses are made up of phrases, phrases are made up of words, and words are made up of morphemes (Halliday and Matthiessen 2014: 9). In SFL, meaning originates at the clause level through lexicogrammar. Overall, stratum and rank embody the two types of hierarchies governing the language system, respectively at vertical and horizontal level, in SFL (Halliday and Matthiessen 2014; Bartlett and O'Grady 2017; Berry 2017).

As previously mentioned, in SFL, people make sense of experience through language, that is they construe their experience and negotiate it with the other interactants through language; at the same time, language is used to establish social relations (Rose and Martin 2012: 19). In particular, in SFL, language informs three main types of meaning or metafunctions: the ideational/content meaning, the interpersonal meaning, and the textual meaning (Martin 2009: 24). The ideational/content meaning makes sense of experience and construes ideas; the interpersonal meaning, instead, enacts interactants' roles and their social relationship building while the textual meaning, related to the organization of the information in a text, enables speakers/writers to relate the text to its context (Martin 2009: 24). In this light, any text (i.e. any instantiated example of the language system) encapsulates meaning through field, tenor, and mode (Halliday and Matthiessen 2014; Bowcher 2017). Field refers to the subject being discussed and the ideas construed while tenor refers to the interactants' roles in the exchange and the way they encode and negotiate the social relationships between the people involved in the exchange (Halliday and Matthiessen 2014; Bowcher 2017). Finally, mode refers to the rhetorical dimension, the degree of the dialogic or monologic dimension implemented, and the channel of communication used to convey meaning (Halliday and Matthiessen 2014; Bowcher 2017). In brief, as Llinares and McCabe suggest:

language serves to construct representations of the world, whether real or imagined (the ideational metafunction), and it serves to construct relations with others and provide opinions on propositions (the interpersonal metafunction); the third metafunction, the textual, serves to assemble the ideational and interpersonal into cohesive and ordered texts (2020: 2).

A supervenient relationship between language and context, which conceives context as a higher stratum of meaning, is given priority in SFL over a circumvenient perspective, which views context as an extra-linguistic dimension into which language is embedded (Martin 2014: 10). Context envisioned as a higher stratum of meaning is pivotal in SFL meaning-making conceptualization (Martin 2014: 10-14). Within a supervenient view of context, SFL moves beyond the clause level through discourse semantics, register, and genre (Martin 2014: 19). As a result of a supervenient stratal perspective of context, genre and register are viewed as the product of increasingly complex patterns of meaning, register, and discourse semantics; in this respect, patterns of discourse semantics are the product of lexicogrammatical patterns, which are produced by phonological patterns (Martin 2014: 14). The supervenient approach highlights how language users have to dive into all the lower strata to understand genre:

it is very common for SFL and corpus linguists to base context analysis simply on lexicogrammatical patterns, setting aside discourse semantics, or register (i.e. field, tenor and mode), or both, as if these levels of articulation were not crucial. Supervenience demands a full spectrum of analyses, across the strata proposed (Martin 2014: 14).

3.2.2. Subject-specific literacy development and language awareness

Research in CLIL has increasingly pinpointed the need to go beyond the integration of content and language by advocating subject literacy development as deeply interwoven with subject-specific learning outcomes (Cenoz, Genesee and Gorter 2014; Coyle 2020; Llinares and McCabe 2020). As a result, CLIL research has increasingly adopted an SFL approach with its view of language as meaning making in context (Byrnes 2011; Dalton-Puffer 2011; Byrnes 2012; Llinares, Morton and Whittaker 2012; Lin 2016; Llinares and Nikula 2016; Byrnes 2017; McCabe 2017; McCabe and Whittaker 2017; Müller and Dalton-Puffer 2018; Otto 2018; Byrnes 2019; Hidalgo McCabe and Fernández-González 2019; Evnitskaya and Dalton-Puffer 2020; Llinares and McCabe 2020). SFL in fact enables researchers and instructors to see content knowledge and subject-specific literacy development as intimately connected. This conceptualization of language and content through disciplinary literacy addresses the need to adopt, in CLIL contexts, a language awareness perspective meaningful for content instructors who do not see themselves as language teachers:

If linguists wish to remain relevant and continue to gain access to EMI contexts then they will need to take the interests of content lecturers into account. We need these content lecturers to take language seriously and for this to happen the topics we choose to research need to be seen as relevant – that is, they need to be driven by disciplinary rather than linguistic interests (Airey 2020: 346).

In this respect, an SFL perspective pinpoints the need to map content knowledge in terms of subject-specific language patterning and highlights language awareness as pivotal to fostering the development of subject knowledge construction in an additional language (Coffin 2017: 91-92):

If learning is interpreted as a process of learning language and learning through language, and in many senses also learning about language (Halliday 2004, pp. 308-326), then central to learning history or science (or any subject) is learning the language of history and science and learning about the language of history and science. This draws attention to the need for researching and making explicit the language of academic disciplines (Coffin 2017: 97).

In CLIL, students need to master both the discourse necessary to understand subject-specific knowledge constructs in the additional language and the strategies writers use to position themselves in relation to the knowledge constructed. In this light, the analysis of text structure[8] is instrumental in examining how writers convey their ideas and beliefs since text structure, realized through genre-specific lexicogrammatical patterns, is informed by language users' worldview (Coffin, Donohue and North 2009: 245-246). In this perspective, SFL is especially suitable for enabling readers to engage critically with subject-specific texts and genres while working simultaneously on content and language (Coffin, Donohue and North 2009: 191-192). Interestingly, in SFL, genre pedagogy envisions language awareness (on first and/or additional languages) as a key component of content learning: "the approach of genre pedagogy is to make the entire language-learning task explicit, and this means building up a lot of new knowledge about language (or KAL) for both teachers and students" (Rose and Martin 2012: 10). As a result, within an SFL framework, content-specific knowledge development requires the implementation of language awareness targeted at disciplinary literacy development (Rose and Martin 2012: 18). SFL thus seems especially suitable for integrating content and language development into CLIL learning environments, not least due to its focus on genres as the product of patterns of language produced through lexicogrammatical constructs (Morton and Llinares 2017: 6).

In CLIL settings, SFL-informed disciplinary literacy may focus on various language aspects, such as grammatical metaphor, Appraisal, and thematic structure. Furthermore, transitivity analysis can be especially useful to analyze the worldview informing authors' value-loaded linguistic choices.

8. Thanks to Martin's work on genre, SFL has moved from clause to text structure (2014).

3.2.2.1. Grammatical metaphor

In English, verbs are marked as the most suitable way to convey processes, nouns to convey entities, and adjectives to convey qualities (Banks 2019: 83). When these patterns are modified – i.e. processes, entities, and qualities are produced in a non-congruent form (for example a process is conveyed through nouns) –, grammatical metaphor occurs (Taverniers 2017; Banks 2019). Nominalized processes and qualities are examples of grammatical metaphor, which constitutes a recurring pattern in content-specific discourse.

In this context, it is noteworthy that nominalized processes represent one of the most increasingly used practices in English subject-specific discourses (Biber and Gray 2016: 67-122). Over time, this phenomenon has emerged as the result of an increased use of nominal groups made up of two, three, four or more nouns in a row, a decrease in the use of of-phrases, an increase of phrasal embedding over clausal embedding, and an increase of the use of appositions in the scientific subjects (Biber and Gray 2016: 67-217). Increased phrasal embedding in English subject-specific discourse has led to a decrease in the use of lexical verbs and to an increase in implicitness since in phrasal embedding logical relationships are not explicit (Biber and Gray 2016: 218-243).

Shifting from a dynamic representation of knowledge through verbs to a static representation of knowledge through nouns is a dimension of subject-specific content that students need to be aware of since when authors use nouns instead of verbs they modify the way people experience reality (Halliday 2004; Fontaine 2017). It is thus important for ETP students to learn how to unpack, i.e. to express subject-specific concepts using everyday language, and repack, i.e. to rephrase concepts expressed in everyday language through subject-specific technical language. Students can carry out information density reduction, i.e. unpacking, in various ways, such as replacing complex noun phrases with a series of simpler phrases, using concrete nouns instead of abstract nouns and verbs instead of nouns and adjectives (Hu and Gao 2018: 176-177). Repacking implies instead moving from mainly verbal forms to nominal forms and especially complex noun phrases (Lin 2016: 50).

Within a genre-based pedagogy, language awareness in ETPs needs to focus on the lexicogrammar patterns (such as higher lexical density and at the same time lower clausal complexity) which characterize subject-specific knowledge in English. Students' unpacking skills are thus essential to unravelling the cognitive processes underpinning subject-specific language constructs, such as grammatical metaphor and complex phrasal embedding.

3.2.2.2. Transitivity analysis

The ideational metafunction, based on the relationship between participants (subjects and objects of a clause), processes (verbal groups), and circumstances (prepositional phrases), can be analyzed through transitivity analysis (Davidse

2017; Miller 2017; Banks 2019). Transitivity analysis makes speakers and writers' stance surface since it entails "analysing the components of language that function to represent 'who does what, to whom, where, when, and how'. A transitivity analysis thus reveals how the world is represented" (Coffin, Donohue and North 2009: 288).

In SFL, functional labels (such as participants, processes, and circumstances) are used to codify meaning processes:

1. Participants: Who or what is involved in the event or situation? […]
2. Processes: What is the action or event or relationship presented in the clause? […]
3. Circumstances: What kind of information are we given about the situation surrounding the process, e.g. Where is the event occurring (location in space)? When is it occurring (location in time)? Why did it occur (cause)? And how did it occur (manner)? (Coffin, Donohue and North 2009: 286).

The overall congruent correspondence of nominal groups as participants (subjects and objects), verbal groups as processes, and prepositional phrases as circumstances characterizes the SFL form-function connection (Coffin, Donohue and North 2009: 290-291). However, participants and circumstances can also be produced in noncongruent ways, which generates grammatical metaphor.

In SFL, there are different types of processes (such as material, behavioural, relational, existential, mental, and verbal) and for each process type there are different labels for the participants involved (Coffin, Donohue and North 2009: 292-293), which means that when language users select a process type entailing specific participants, they start enacting their worldview (Coffin, Donohue and North 2009: 295):

Table 1: Categories of processes and participants (Coffin, Donohue and North 2009: 291-308)

Process type	*Concerned with*	*Examples*	*Central participants*
Material	Doing and happening	The books hit the men	Agent / affected
Behavioural	Physiological and psychological behaviour	A man is sleeping	Behaver
Relational	Identifying and classifying […] (having, being)	The music system is rather old	Participant / participant
Existential	Things existing […] (there is, there are)	There is a child	Existent
Mental	Thinking, knowing, feeling, desiring, remembering etc.	I also remembered my first birthday	Experiencer / phenomenon
Verbal	Saying, telling	They were saying how cute I was / They told me how cute I was	Sayer / receiver

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There are also different types of circumstances that can be realized through prepositional phrases (congruent way) or grammatical metaphor (non-congruent way) (Coffin, Donohue and North 2009: 300):

Table 2: Types of circumstances (Coffin, Donohue and North 2009: 301)

Circumstance type	*Subcategory*	*Question/test to identify type of circumstance*
extent	Distance	How far?
	Duration	How long?
	Frequency	How many times?
location	Space	Where?
	Time	When?
manner	Means	How? What with?
	Quality	How?
cause	Reason	Why?

In a transitivity analysis, participants, processes, and circumstances are investigated to detect speakers/writers' worldviews emerging from lexicogrammatical choices. Through transitivity analysis, language users can thus examine form and meaning concurrently to identify their interconnections. This model of analysis targeting content and language concurrently seems especially suitable for CLIL contexts.

3.2.2.3. Appraisal

The interpersonal function deals with the relationship that the speaker/writer establishes with the other interactants and the meaning of the message conveyed (Martin 2014; Anderson 2017; Banks 2019). In this respect, speakers/writers act as information givers or questioners while listeners/readers act as receivers of information or answerers (mood dimension) (Banks 2019: 39). Modality, instead, refers to how speakers/writers negotiate their relation with the texts they produce; in particular, modalization refers to how speakers/writers encode the possibility of something as true while modulation refers to how speakers/writers can convey obligation and permission (Banks 2019: 47). Modality, obligation, and permission are mainly expressed through modal verbs but also lexical verbs (such as seem and allow), nouns (such as possibility), adjectives (such as possible), and adverbs (such as possibly) (Banks 2019: 47-48).

The interpersonal metafunction can be analyzed through the Appraisal framework, a model of language evaluation consisting of three systems (i.e. attitude, engagement, and graduation) further complexified by means of subsystems (McCabe and Whittaker Rachel 2017; Oteíza 2017). Through

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Appraisal, it is possible to analyze the way speakers/writers' subjectivity is encoded in texts (Martin and White 2005; Banks 2019)[9].

Attitude, which refers to the speaker/writer's feelings and emotions (Banks 2019: 74-78), includes affect, judgment and appreciation. Affect, the core Attitude component, represents the speaker/writer's positive and/or negative feelings and emotions in relation to the topics investigated (Martin and White 2005: 42): "Affect […] is a resource for enacting the emotional responses of participants to phenomena: un/happiness; in/security; dis/satisfaction" (Miller 2017: 241). Judgment, which encodes "social esteem and social sanction" (Banks 2019: 75), refers instead to how the speaker/writer conveys attitudes in relation to people and their actions, for example by praising or criticizing them (Martin and White 2005: 42). Appreciation, which can be either positive or negative like affect, refers to how the speaker/writer conveys evaluation (Martin and White 2005: 43).

Engagement, which refers to the degree to which the speaker/writer accounts for other peoples' opinions, can be monoglossic and heteroglossic, depending on whether the speaker/writer refers only to his/her own ideas or also to others' ideas (Banks 2019: 76-78). In particular, if the text is heteroglossic,

> it is possible to distinguish between "disclaiming", "proclaiming", "entertaining" and "attributing". […] In heteroglossic engagement, disclaiming is where the speaker presents something as being the position of others, but which he does not necessarily accept, by denying or countering it in some way. […] Proclaiming […] is where the speaker specifically accepts or approves the point of view put forward. […] When a speaker entertains a point of view, he accepts the possibility of it being the case. […] Attributing is where the speaker presents something as being the point of view of someone else, and so, at least by implication, not necessarily his own point of view (Banks 2019: 77).

Through entertaining, the writer/speaker can give voice to others' authoritative ideas and generate heteroglossic texts suitable for various possible interpretations (Martin and White 2005: 108)[10]. Furthermore, through obligation, as part of entertaining, meanings related to various degrees of obligation and permission are encoded in the text in relation to the writer/speaker's voice[11].

9. "The interpretation of […] appraisal is […] strongly conditioned by the belief and value system, the cultural paradigm or world view, within which the text is being produced and which it can be seen to re-propose, re-legitimate, or not" (Miller 2017: 241).

10. "'Entartain' […] encompasses meanings by which speaker/writer makes assessments of likelihood via modal auxiliaries (may, might, could, must etc.) via modal adjuncts (perhaps, probably, definitely etc.), via modal attributes (it's possible that…, it's likely that… etc.), via circumstances of the *in my view* type, and via certain mental verb/attribute projections (I suspect that…, I think, I believe, I'm convinced that, I doubt etc.)" (Martin and White 2005: 104-105).

11. "We also include within this category of entertain locutions concerned with permission and obligation, traditionally the category of 'deontic' modality (for example, You must switch off the lights when you leave). […] deontic modals […] construe the communicative setting

Graduation refers to the language devices used to make the feelings and attitudes expressed sound stronger or weaker (Martin and White 2005; Banks 2019): "'Focus' grades the extent to which we say something is prototypical or not. 'Force' is the degree to which we say something is strong or weak" (Banks 2019: 77-78).

Appraisal is being increasingly used to analyze various kinds of subject-specific discourses in CLIL contexts (Llinares and Dalton-Puffer 2015; Dalton-Puffer 2017; McCabe and Whittaker 2017; Morton and Llinares 2018; McCabe and Whittaker 2020).

3.2.2.4. Thematic structure

The textual metafunction refers to the way the content is organized at the clause and text level with a special focus on the way the clause starts (Forey and Sampson 2017; Banks 2019). Thematic structure refers to how theme and rheme work at clause and interclause level (Forey and Sampson 2017; Banks 2019). The theme, which is usually in English a nominal group or a noun positioned at the beginning of the sentence, represents the information shared by speakers/writers and listeners/readers while the rheme represents the new information provided by speakers/writers within the clause (Banks 2019: 53). Thematic progression encodes the way themes may be taken up from previous clauses (Banks 2019: 59). In particular, thematic progression can be constant, if the theme comes from the previous theme, or linear, if the theme comes from a previous rheme (Banks 2019: 59). Linear progression is more likely to characterize argumentative texts while constant progression is more likely to appear in narrative and descriptive texts (Banks 2019: 60).

The repacking of the rheme of a sentence often occurs through nominalization in the following sentence; a denser nominal group is thus likely to become the theme of the new sentence (Lin 2016: 53). In disciplinary discourse, a rheme is likely to be conveyed in a congruent way and highly likely to appear as a grammatical metaphor as the theme of the following clause (Banks 2019: 56). Helping students to notice and unpack these practices in ETPs may be highly beneficial in order for them to learn how to manage content-specific information flows in an additional language.

In terms of cohesion, in subject-specific texts, it may be especially useful to work on lexical chains, which occur through the repetition of the same words or words with shared meanings (Banks 2019: 65-66).

as heteroglossic and open up the dialogic space to alternatives. The contrast is between the imperative (Turn out the lights before you leave) and the modal formulation (You must turn out the lights before you leave). The imperative is monoglossic in that it neither references, nor allows for the possibility of, alternative actions. The modal, in contrast, explicitly grounds the demand in the subjectivity of the speaker – as an assessment by the speaker of obligation rather than as a command" (Martin and White 2005: 110-111).

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3.2.3. SFL and a critical view of disciplinary discourses

SFL was originally theorized as a way to foster equity by avoiding the (also institutional) marginalization of subgroups, including the effacement of their cultural identities, due to their often hybrid language practices (Christie 2007; Harman 2018). Thus, also formulated to prevent the marginalization of linguistically diverse subgroups, SFL-informed approaches, which aim to promote social equity (Christie 2007; Harman 2018), have been implemented with success in higher education to enhance disciplinary critical language awareness from a multilingual perspective (Byrnes 2009; Mahboob, Dreyfus, Humphrey and Martin 2010; Humphrey 2011; Martin 2013; Byrnes 2012; Byrnes 2014; Ramìrez 2018).

SFL-informed approaches have been adopted successfully first in Australia and then in North America to promote the development of subject-specific literacy for all students, including emergent bilinguals (EBs)[12] and multilingual students (Harman and Simmons 2014; Humphrey 2010; Fang 2013; Schleppegrell 2013; Harman 2018; Humphrey 2018; Potts 2018). From a multicultural and multilingual perspective, culturally sustaining SFL-informed practices aim to promote the "integration of students' cultural repertoires and academic literacy practices" (Harman 2018: 8)[13] while at the same time preventing the implicit adoption of Anglo-English subject-specific theorizing.

Through SFL-informed approaches, instructors can provide students with content-specific language-focused activities suitable for fostering critical language awareness on content-specific discourses conveyed in an additional language[14]. This practice is instrumental in helping students to learn effectively how first to decode and then to encode subject-specific literacies in an additional language:

In an SFL-informed pedagogical design, teachers and students can investigate, for example, how and why a pattern of adverbials, nouns and verbs construct a particular

12. "Informed by Garcia *et al*. (2008) we use the term emergent bilinguals (EBs) to highlight how students acquiring English through school or other social contexts are in the process of becoming bilingual, a fact that is eliminated by use of deficit terms such as English learners" (Harman 2018: 20). "Multilingual learner is a term used in this book to include a range of populations: heritage learners, second language learners, code switchers among various dialects etc." (Harman 2018: 20).

13. "I offer the term and stance of culturally sustaining pedagogy […] as a term that supports the value of our multiethnic and multilingual present and future. Culturally sustaining pedagogy seeks to perpetuate and foster – to sustain – linguistic, literate, and cultural pluralism as part of the democratic project of schooling. In the face of current policies and practices that have the explicit goal of creating a monocultural and monolingual society, research and practice need equally explicit resistances that embrace cultural pluralism and cultural equality" (Paris 2012: 93).

14. SFL-informed approaches conceive language learning as "additional language learning at any point in the life span after the learning of one or more languages has taken place in the context of primary socialization in the family" (The Douglas Fir Group 2016: 21).

evaluative stance in a text. […] [A] focus on the appraisal resources in literature or ideational resources in informational texts (e.g. use of nominalization and other noun group patterns) [can] support[…] students in developing an emergent critical language awareness of how language is configured for ideological purposes (Harman 2018: 5-6).

Through SFL-informed approaches, students can thus investigate critically how disciplinary discourses are the result of a series of networked choices, made at different strata levels (from phonetics/phonology to lexicogrammar and semantics) (Harman 2018: 6). In this respect, it is important to mention that SFL views language learning as language users' development of disciplinary literacies (Byrnes 2019: 517), which addresses the need of CLIL to integrate content and language effectively. Research shows that SFL-informed critical language awareness can successfully foster the development of students' genre- and discipline-specific skills at tertiary level (Mahboob, Dreyfus, Humphrey and Martin 2010; Humphrey 2011; Martin 2013; Ramírez 2018). Studies show in particular the efficacy of SFL-informed approaches to foster students' disciplinary critical language awareness in an additional language from a multilingual perspective (Harman 2013; Daniello 2014; Harman and Khote 2017). SFL-informed approaches have also been effectively implemented at the tertiary level to help additional language learners to work on college-specific disciplinary genres while learning how to master the culture-specific language-driven ideological stances of the genres investigated (Byrnes 2009; Mahboob, Dreyfus, Humphrey and Martin 2010; Humphrey 2011; Martin 2013; Byrnes 2012; Byrnes 2014; Ramìrez 2018).

SFL is connected to Vygotsky's theory of learning, which sees, as previously mentioned, concept building and language learning as the result of socially constructed meaning-making practices (Harman 2018: 6). In CLIL environments, the socially constructed knowledge dimension entails the implementation of collaborative dialogue also conducive to languaging, instrumental in disciplinary concept and language development. SFL uses the term language development[15] instead of language acquisition because the latter refers to language envisaged as a fixed rule-based construct which sees native speakers as the ideal language speakers and as a consequence language learners as deficient additional language users (Byrnes 2019: 515-516). In this respect, Cook's conceptualization of multicompetent/multilingual users has challenged the model of the native speaker as the ideal language speaker (2012, 2016). ETPs have adopted Cook's definition of language learners as multicompetent/multilingual users. Interestingly, Hampel has recently adopted the concept of multicompetent/multilingual users to analyze the use of digital technologies for language learning (2020: 2898).

15. SFL's adoption of the term language development is also in keeping with Vygotsky's view of language learning (Vygostky 1978; Lantolf 2000; Lantolf and Thorne 2006).

3.2.4. Superdiversity and ETPs

The SFL perspective, with its focus on equity, inclusion, and culturally sustaining pedagogy, is in keeping with a superdiverse view of society. Vertovec coined the concept of super-diversity to define the newly emerging complex migration flows that have characterized English society since the early 1990s (2007: 1024)[16]. Besides the dimension of the new migration flows, Vertovec's super-diversity comprises the socio-economic consequences of the phenomenon, including the emergence of new social hierarchical structures and related inequalities (2019: 126). In this respect, Vertovec shares Sigona's view[17] on the effects of the concept of superdiversity emerging as "ways of looking at a society getting increasingly complex, composite, layered and unequal" (Vertovec 2019: 127-136)[18]. The concept of superdiversity, which emerged in the Anglo-English monolingual context, has outlined new sociolinguistic-economic phenomena from a multilingual perspective (Singh 2017: 4-5).

Over the years, the concept of superdiversity has been applied to various contexts with different meanings, all including the dimension of complexity in terms of socio-cultural processes from the local to the global perspective (Vertovec 2019: 127-136). The originally social anthropological concept of 'super-diverse' societies (Vertovec 2007: 1024-1049) has recently been applied to the educational field "as a way of problematizing, re-imagining and re-configuring how knowledge is produced and disseminated at a global scale" (Díaz 2018: 22). Instructors in ETPs thus need to engage with superdiversity to understand the interdependence of education and globalization from a global perspective. In particular, the concept of superdiversity challenges the overarching English-only monolingual and monocultural knowledge building processes; as a result, the use of English is being questioned (Díaz 2018: 23).

English academic discourses shape the monocultural Anglo-English way scientific knowledge is conceptualized and disseminated at global level; in this respect, superdiversity has worked to raise awareness of the need to open up linguistically diverse epistemological knowledge constructs in disciplinary fields (Díaz 2018: 23-24). From a superdiversity-driven perspective, teaching

16. Besides newcomers' ethnicity, the dimensions embedded in the super-diversity phenomenon are "differential legal statuses and their concomitant conditions, divergent labour market experiences, discrete configurations of gender and age, patterns of spatial distribution, and mixed local area responses by service providers and residents. The dynamic interaction of these variables is what is meant by 'superdiversity'" (Vertovec 2007: 1025).

17. *nandosigona.info*.

18. As Spotti and Blommaert suggest: "Today superdiversity refers to 'the diversification of diversity' (Vertovec 2007, 2010, 2015) – that is, to a new, more complex, more scattered, and more transnationally connected flow of people coming from many places and moving to many places, making up a societal layer that is on top of the group-based migration that had characterized Europe from the late 1960s onward" (2017: 169).

content through the medium of English to non-English speaking students thus entails fostering diversity and complexity in both language and subject knowledge construction from a multilingual and multicultural perspective. As a result, when teaching content through the medium of English in non Anglo-English contexts, content instructors need to make sure that learners view English not as a homogenous language, where native speakers' standard is the norm, but rather as an additional language also belonging to those who use it in international contexts (Díaz 2018: 27) in keeping with Cook's definition of multicompetent/multilingual users (2012, 2016). In this light, students need to know how the English language informs Anglo-English subject-specific discourses in order to attain awareness of the processes generating knowledge constructs. This view is in keeping with an SFL approach to disciplinary learning (in a first or additional language) which insists on the need to make the role language plays in subject-specific meaning-making processes explicit while also fostering a critical perspective on disciplinary discourses (Martin 2009, 2013, 2014; Halliday and Matthiessen 2014; Harman 2018). As a result, in ETPs, students can start to develop new hybrid epistemic knowledge frameworks by complexifying knowledge creation processes and constructs from a multilingual perspective.

Today, the internationalization of higher education implemented through English-only knowledge practices is often perceived as affecting language and cultural diversity negatively by fostering standardization in theorizing processes (Singh 2017: 12-13). However, teaching content through the medium of English in non-English speaking countries and/or to students with non-English speaking backgrounds need not necessarily entail the implicit development of an English model in conceptualizing and theorizing content. A critical approach to English subject-specific discourses may thus be instrumental in fostering divergence in theorizing discourses[19] (Singh 2017: 1) in ETPs. In this respect, for example, Singh's post-monolingual research methodology, targeted at intellectual equality in relation to researchers of non-English speaking backgrounds, advocates the development of a multilingual mindset in scientific theorizing (2017: 2). In this light, teaching disciplinary content in higher education through the medium of English in non-English speaking countries calls for a view of language diversity and divergence in theorizing discourses from a multilingual perspective (Singh 2017: 2).

Within this theoretical framework, to foster the development of a multilingual mindset in ETPs, it is crucial to help students understand not only how subject knowledge systems build disciplinary knowledge but also how disciplinary discourses are constructed in English. Language awareness in ETPs can thus work as consciousness raising, fostering the growth of critical awareness of subject-specific literacy in the additional language. As a result, the role of

19. "Theorizing is the capability to make sense of evidence using concepts and reasoning to offer credible interventions that are likely to make a desirable difference" (Singh 2017: 4).

language in meaning-making processes at scientific level takes center stage through its agency in generating theorizing discourses (Singh 2017: 4-5):

> Bennett […] highlights the importance of opening our minds to the possibility that alternative ways of construing knowledge exist. This entails denaturalising and problematising the normativity of the epistemological assumptions behind the ways in which we approach and evaluate scholarly texts (Díaz 2018: 31).

The development of students' critical thinking in relation to the additional language used to convey disciplinary concepts is pivotal to enhance the analysis of subject-specific theorizing practices. Language awareness integrated into the teaching of content in ETPs can thus be conceived as instrumental in fostering divergence in disciplinary and theorizing discourses in an additional language (Singh 2017: 13). In this light, it is essential that ETP content experts focus on the disciplinary theorizing literacies used in their subject-specific domains since it is through content-specific literacies that knowledge is constructed. Thus, for students to understand knowledge systems produced in an additional language thoroughly, it is important to analyze the disciplinary discourse practices specific to the subjects in which they engage. As a result, through the promotion of students' metalinguistic knowledge of disciplinary discourses in the additional language, instructors can enable students to contribute actively to the "debates about the geopolitics of local/global knowledge production, research and theorizing" (Singh 2017: 12).

3.3. The implementation of SFL in ETPs: a 3×3 framework

3.3.1. Digitally-enhanced SFL-informed embedded disciplinary literacy in ETPs: a framework

The integration of adjunct ESP and/or pre-sessional ESP/EAP classes into ETPs represents, as previously mentioned, the main kind of language support usually provided in these learning contexts (Schmidt-Unterberger 2018). However, a more thorough integration of content and language in ETPs is possible through SFL-informed content-specific embedded literacy: "'embedded literacy' can be achieved [through] 'mini-language support units' [embedded] into a content lesson" (Lin 2016: 153). Embedded literacy appears to be especially effective when pursuing the dual objective of CLIL in higher education for two main reasons. First of all, through embedded literacy, students are likely to perceive language awareness as motivating since provided in a meaningful context (Lightbown 2014: 48). Second, students can benefit greatly from embedded literacy focusing on subject-specific discourses instrumental in fostering transfer-appropriate processing (TAP) which holds that "we can better remember what we have learned if the cognitive processes that are

active during learning are similar to those that are active during retrieval" (Lightbown 2008: 27). In this light, what learners were engaged in when they learned new information is likely to affect recall positively: "[a] factor that drives recall from long-term memory is what we were doing when we first processed it. In particular, deep processing – thinking of information in terms of its meaning – sets us up for much better recall" (Miller 2014: 95). As a result, language awareness embedded into content lessons appears to be especially suitable for fostering content and language development in ETPs.

SFL-informed embedded literacy is likely to cater to ETP environments effectively because subject-specific language practices aim to empower language learners from a critical perspective. In this respect, genre-based language awareness, embedded into content classes, focuses effectively on the meaning-making dimensions of disciplinary language in ETPs:

> one of the chief aims of […] CLIL is to help students access the target academic language and literacies, to master the necessary genres, registers and lexico-grammatical resources required to participate and communicate successfully in the learning and assessment activities/tasks in different academic content subjects in educational settings (Lin 2016: 160-161).

In this light, for example, as part of SFL-informed critical approaches, transitivity analysis may enable students to analyze content and language concurrently by detecting and investigating underlying genre-based patterns of meaning, springing from the speaker/writer's language choices targeted at conveying reality (Coffin, Donohue and North 2009: 330-331).

To make the integration of content and language development user-friendly for content instructors and students in ETPs, a technology-enhanced SFL-informed content-specific embedded literacy framework has been devised in the present work. In particular, from an open pedagogy perspective and building on the affordances of educational technologies in SFL-informed approaches – "Digitally-enhanced SFL-informed disciplinary activities seem to have positive educational effects on students' literacy and cognitive development" (Harman 2018: 9) –, this work illustrates how digitally-enhanced SFL-informed embedded disciplinary literacy can be implemented in ETPs using text mining.

In the last decade, various SFL-informed matrixes have been devised to help university instructors scaffold students' SFL-informed, genre-based, critical analyses of academic literacies. The matrixes, created to cater to specific groups of students and disciplines, aim to support instructors in helping learners analyze disciplinary texts in keeping with the ideational, interpersonal, and textual metafunctions at the text, paragraph, and sentence levels. The 3×3 matrixes thus help instructors to scaffold students' investigation of disciplinary literacy by examining how the three metafunctions work at text, paragraph, and sentence level (Humphrey and Robinson 2012; Humphrey and Robinson 2013; Pessoa,

Mitchell, Miller 2018; Mitchell and Pessoa 2017; Caplan 2019)[20]. In brief, the various matrixes scaffold the "understanding of a text by considering how meanings of SFL's three metafunctions of language (ideational, interpersonal, and textual) are realized through linguistic resources at the levels of the whole text, paragraph, and sentence/clause" (Pessoa, Mitchell and Miller 2018: 83).

As part of the Scaffolding Literacy in Adult and Tertiary Environments (SLATE) project, the Sydney School of SFL developed the first SFL-informed 3×3 matrix as an academic literacy teaching resource targeted at supporting English academic literacy development for speakers of English as an additional language engaged in EMI in Hong Kong (Mahboob, Dreyfus, Humphrey and Martin 2010: 25-26)[21]. The SFL-informed 3×3 matrix represents a framework instructors can use to plan and implement English academic literacy in ETPs:

> The 3×3 is a framework for describing key linguistic resources needed to construct texts across academic disciplines. […] The 3×3 [framework] […] was […] devised as a principled overview of resources identified by educational linguists within SFL in their analysis of academic writing. The framework is called 3×3 because it forms a 9 square matrix from intersecting features of language from each of the three metafunctions of language (ideational, interpersonal and textual) and features from three strata of language (social activity, discourse semantics and grammar & expression). […] The […] 3×3 […] present[s] a theoretically principled and coherent framework for literacy teachers in supporting students to develop a powerful repertoire of linguistic resources needed to access literacy and learning at tertiary level (Humphrey, Martin, Dreyfus and Mahboob 2010: 186-192).

Various subject-specific matrixes have been devised to cater to the needs of university students (Humphrey and Robinson 2012; Humphrey and Robinson 2013; Mitchell and Pessoa 2017; Pessoa, Mitchell and Miller 2018). A course-tailored 3×3 matrix has recently been created at a US university to foster international students' development of academic literacy in sheltered face-to-face disciplinary classes[22], which are part of customized learning pathways (Caplan 2019: 2).

20. A 4x4 matrix, featuring more granularity at ideational and sentence levels, has also been devised to train teachers in SFL-informed approaches (Humphrey and Robinson 2012; Humphrey 2013).

21. "[The] project that aims to scaffold the academic literacy skills of students from a non-English-speaking background (NESB) studying at an English medium university, via the use of online learning environments […] [has been implemented] at the City University of Hong Kong. […] [In this context, the University of Sydney] team […] expanded the coaches' […] metalinguistic resources, using teaching materials such as the 3×3 matrix […]. The aim of the training was to extend the language coaches' gaze beyond word-level structural units to considerations of context and unfolding of meanings across texts" (Mahboob, Dreyfus, Humphrey, and Martin 2010: 25-26).

22. "These [content] classes are currently all sheltered; that is, they are taken only by Academic Transitions (ESL) students, although the syllabus, learning outcomes, and assessments are equivalent to regular sections of the course" (Caplan 2019: 2).

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In the present study, a 3×3 matrix suitable for catering to students' critical language awareness in ETPs has been devised. The 3×3 matrix aims to serve as a user-friendly resource that content and language specialists working in ETPs can adopt (and adapt) to develop technology-enhanced SFL-informed embedded literacy implemented through text mining practices. Thus, besides designing a new 3×3 matrix, the present work also shows how the questions inserted in the 3×3 matrix can be answered using text-mining tools, available as Open Educational Resources. The use of text-mining procedures to implement a 3×3 matrix represents a new practice for the integration of content and language in CLIL in general and in ETPs in particular. This newly devised text mining-driven language awareness practice enables instructors to implement explicit language instruction through distant reading, which represents another innovation in language awareness in CLIL learning environments in general and in ETP settings in particular.

In the present study, the 3×3 matrix has been customized to analyze a chapter of a history open textbook, i.e. "Canadian History: Post-Confederation" by Belshaw (2016), provided as an OER by BC Open Textbook Project implemented at the BC Campus in British Columbia, Canada. In this context, it is important to mention that although in the present volume the 3×3 matrix and the digitally-enhanced practices connected are applied to a text belonging to the Humanities, the 3×3 matrix (and the relative technology-enhanced practices) can be easily adapted and applied to texts belonging to the scientific and technical fields as well as the social sciences. OERs, such as open textbooks, are suited to catering to students' local needs while used in national and/or transnational learning environments (Butcher and Hoosen 2014: 9). The matrix developed, which can be easily adapted to cater to other subject-specific texts, follows (*Table 3*).

Table 3: 3×3 matrix devised for text mining practices (The matrix has been adapted from: Humphrey, Martin, Dreyfus and Mahboob 2010; Humphrey and Robinson 2012; Humphrey and Robinson 2013; Mitchell and Pessoa 2017; Pessoa, Mitchell and Miller 2018; Caplan 2019)

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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How do the introduction, the chapters, and the conclusion of a textbook organize subject-specific knowledge (such as key topics)? How do the introduction, the subchapters, and the conclusion of a textbook chapter organize subject-specific knowledge (such as key topics)? How are keywords used to build disciplinary knowledge in a textbook chapter (in the introduction, the subchapters, and the conclusion)? How are keywords interconnected? How does the writer provide information? Does the writer try to align the reader with his/her view? If so, how?	How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? And in particular within the various sections of the introduction and conclusion? How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text? What are the most frequently occurring logical relations (such as cause, time, comparison, concession, consequence, addition etc.) in the text? And in particular in the introduction, subchapters, and conclusion of a book chapter? What do these data suggest in terms of how the topic is logically expanded in the subject-specific text? How are logical relations (such as cause, time, comparison, concession, consequence, addition) instrumental in fostering the development and expansion of ideas in the text? And in particular in the introduction, subchapters, and conclusion of a book chapter?	Which language elements are used more frequently: nouns or verbs? What is the ratio? What does the ratio suggest in terms of disciplinary knowledge construction? To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? How is implicitness connected to nominalization? What do these data suggest in terms of subject-specific discourse? Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? Which article (a/the) is mostly used? Why? Where exactly in the text? Transitivity analysis. What types of verbs are mostly used? What types of participants are mostly used? What kinds of prepositional phrases (circumstances) and adverbs (encoding time, place, manner, frequency, duration) are mostly used? What do these data suggest? How do these data convey the writer's worldview? To what extent do the types of verbs used convey the processes specific to the genre (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)? What kinds of verb times are mostly used? To what extent are the verb times relevant to the genre? What kind of aspect is mostly used? To what extent are the aspects relevant to the genre? What kinds of tenses are mostly used? To what extent are the tenses relevant to the genre? What kind of voice is mostly used? To what extent is the voice relevant to the genre? In noun groups, what are the most common collocates of subject-specific vocabulary items? What conjunctions are mostly used? What do the data suggest?

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Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal	What is the main objective of the text (e.g. to inform, report, persuade etc.)? To what extent is information presented as factual or tentative? To what extent is information provided in an authoritative and impersonal way? Does the writer try to make the reader agree with his/her stance/ claims/worldview? If so, how?	Is the evaluative stance used to the same extent in the various sections? How does the writer position the reader in relation to the information presented? To what extent is the reader presented as aligned with the writer's stance? Is the interaction with the reader mainly based on providing information, giving orders / instructions / commands, and/or asking questions? What do these data suggest in terms of subject-specific discourse? To what extent is evaluation conveyed through grading elements?	How and to what extent do writers hedge their positions with modal verbs and/or other words / expressions conveying the same meaning? What personal pronouns do writers use? When do they use them? How do the pronouns used position the writer and the reader? To what extent are pronouns used? What pronouns are mainly used? Why? What do these data suggest in terms of subject-specific discourse? To what extent are articles, pronouns, and abstract concepts used to trace people, things, and ideas? To what extent does passive voice affect the focus of the message?

Function / Level	*7. Whole text (entire textbook and/or a chapter of a textbook)*	*8. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*9. Sentence / clause level*
C. textual	How are key topics previewed in the introductory sections (such as in the introduction of a chapter and the introductory section of a subchapter)? How are key topics reviewed in the final sections (such as in the conclusion of a chapter and in the final section of a subchapter)?	How and where does information flow from more dense abstract terms to less dense concrete terms?	How is the Theme used to control content organization? Is information mainly provided through an old-new structure? How often are marked Themes used? Why? How does the use of marked Themes affect a shift in the way the message is conveyed? Why? What category of marked Themes (such as time, place, manner etc.) is mostly used? To what purpose? To what extent are nominalizations and abstract nouns used to package information? How and to what extent does grammatical metaphor (through nominalization) foster abstract language use? To what extent is passive voice used? How does it affect the way information is conveyed? How is it related to the Theme? How often are articles and pronouns used to trace people, things, and ideas?

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The chapter of the open textbook selected for the present study has been used to create language awareness activities designed as examples for content and language experts who plan to implement digitally-enhanced SFL-informed embedded disciplinary literacy in ETPs. The activities created aim to show how university instructors can use text mining to foster SFL-informed embedded literacy in their ETP courses while fostering students' active learning. Quite importantly, the technology-enhanced language awareness activities devised through text mining are especially suitable for online, blended, and HyFlex learning environments, which is crucial to devising flexible learning in post-Covid higher education.

Although the 3×3 matrix devised is suited to scaffolding content instructors' design of subject-specific language awareness in ETPs, the development of tasks with built-in language focused activities is likely to require the collaboration of content, language, and pedagogical experts, at least at the beginning. Content experts may in fact not be aware of the language used to build subject-specific knowledge in English in their fields; as a result, they may need some initial methodological support to learn how to teach disciplinary literacies in the additional language (Coffin 2017: 93). Furthermore, as previously mentioned, subject specialists may not feel it their responsibility to implement language awareness targeted at fostering subject specific literacy development (Airey 2012, 2020). Thus, at the beginning, the collaboration with language and pedagogical experts may be useful to sensitize subject specialists to the role of disciplinary literacy development in ETPs and to train them to use the 3×3 matrix in order to develop content-specific language awareness using text mining. The need for a methodological support suitable for catering to content experts' pedagogical needs in ETPs has emerged as crucial (Carloni 2015; Pagèze and Lasagabaster 2017; Dafouz 2018; Beaumont 2020; Dafouz, Haines and Pagèze 2020; Farrell 2020; Doiz and Lasagabaster 2020; Herington 2020).

Within a socio-constructivist framework, which envisages learning in general and language learning in particular as a socially constructed collaborative process, the digitally-enhanced SFL-informed embedded literacy activities devised in the present work need to be implemented in ETP classes through collaborative tasks where students interact and negotiate meaning in the target language.

In the ETP course platforms, students need to be able to easily access the text mining-driven SFL-informed embedded literacy activities, developed using the 3×3 matrix. In this respect, platforms such as panOpen[23], where instructors can customize open textbooks catering to their learners' needs by retaining, reusing, revising, remixing, and redistributing materials, can be especially suitable for implementing digitally-enhanced SFL-informed embedded literacy. In panOpen, for example, instructors can embed SFL-informed literacy

23. *www.panopen.com*.

activities, devised with Voyant, directly in the text investigated, which is likely to further enhance students' awareness of the added value of the integration of content and language in CLIL environments. In panOpen, students can also engage actively with learning materials by annotating and highlighting texts as well as commenting on peers' contributions; these practices are instrumental in fostering peer-to-peer, teacher-student, and student-content interaction, which the Community of Inquiry highly values. PanOpen represents an OER-friendly environment promoting the shift to open textbook-based courses as well as opening up textbooks especially suitable for implementing open pedagogy.

3.3.2. Text mining affordances in language awareness activity design

In the present study, from an open pedagogy perspective, text mining is instrumental in implementing a technology-enhanced SFL-informed content-specific embedded literacy framework suitable for ETPs. Disciplinary texts, which are "rich in semantic content" (Zhai and Massung 2016: 4), can thus be investigated through text mining; as a result, visualization-based language awareness, based on distant reading, is implemented, fostering students' engagement in active knowledge making. Text mining enables students to carry out digitally-enhanced activities that could not be implemented otherwise. The activities are thus in keeping with the main findings of the case studies on digitally-enhanced learning previously provided in this work[24] which advocate the implementation of activities where "[t]echnology allows for creation of new tasks, previously inconceivable" (Puentedura in Dudeney, Hockly and Pegrum 2013: 47). Hampel supports this transformative use of technology claiming that:

> institutional settings and curricula would need to encourage teachers to stop doing the same thing that they have always done (e.g. language learning drills such as patterned repetition focusing on form) and instead take account of and make use of the affordances of the new technologies to focus on meaning (2020: 2741).

The use of text mining tools can foster a transformative approach to text analysis in general and foreign language analysis and learning in particular. In ETPs, text mining in fact enables end users to experiment with

> an innovative approach […] [that] show[s] how technologies impact on […] interactive meaning-making in language learning and teaching […] [by promoting] the disruptive effect of technology in traditional language learning settings which has the potential to result in a phase shift […] that is reshaping language learning and teaching by creating new interaction patterns, opening up new ways of meaning-making (Hampel 2020: 392-396).

24. See chapter 1.

Text mining-driven activities introduce ETP students to a new way of understanding content and language while engaging critically with Open Educational Resources. Through digital text analytics, students can deconstruct a text and as a result understand it more thoroughly by investigating its patterns in a non-linear way (McCarthy 1993: 49). Furthermore, through text mining-driven activities, digital textbooks provided as OERs lose their linear structure while students critically investigate authors' authoritative voices through quantitative and qualitative analysis. In this light, by means of digitally-enhanced SFL-informed content-specific embedded literacy, processes such as deconstructing texts, retrieving, and organizing patterns of information – previously accomplished by individual minds – can be implemented through collaborative tasks (Tabassum 2017: 72). Due to this new conceptualization of learning, assessment also undergoes a shift:

> 4. The focus on what is assessable now shifts from individual cognition to the artifacts of knowledge representation and their social provenance. It's not what you can remember but the knowledge artifact you can create, recognizing its sources in collective memory via links and citations and tracing the collaborative construction process via the feedback offered by peers and teachers and the revisions made in response.
> 5. The focus on what is assessable moves from the repetition of facts and the correct application of theorems to what we call complex epistemic performance or the kinds of analytical thinking that characterize disciplinary practices-being a scientist or a writer or applying mathematics to a problem (Cope and Kalantzis 2017: 33).

Text mining-driven activities trigger students' higher order thinking skills, which are pivotal in CLIL learning environments (Mehisto, Marsh and Frigols 2008; Coyle, Hood and Marsh 2010; Coyle 2020), while learners engage critically with content and language. In particular, in keeping with Bloom's revised taxonomy, text mining-driven activities can encourage students to apply, analyze, evaluate, and create content knowledge:

- Apply – Carrying out or using a procedure in a given situation. […]
- Analyze – Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose. […]
- Evaluate – Making judgments based on criteria and standards. […]
- Create – Putting elements together to form a novel, coherent whole or make an original product (Krathwohl 2002: 215).

At macro level, a metacognitive learning outcome of text mining-driven language awareness literacy is to help ETP students become gradually autonomous in disciplinary literacy skills development.

Due to the inductive and interpretive component of text mining, students need to familiarize themselves gradually with the distant reading-driven language awareness activities devised within an SFL-informed framework in ETPs. At the beginning, always working in pairs or groups, they need to carry

out activities provided with data already retrieved by instructors. Later on, instructors can ask students to retrieve data autonomously to do text analysis investigation and formalization hands-on: "as McCarty points out, thinking through modeling and formalization is itself a useful discipline that pushes you to understand your evidence differently" (Rockwell and Sinclair 2016: 1045). In this light, the results that students gather from text mining, through active learning, may represent a starting point for further investigation by peers (Rockwell and Sinclair 2016: 3921-3924).

Text mining-driven activities can foster students' metacognition in terms of genre-based knowledge management and subject-specific language awareness[25]. In particular, through text mining-driven activities, students become active knowledge makers. From a reflexive pedagogical perspective, carrying out text mining-driven activities, learners become knowledge designers (Cope and Kalantzis 2017: 39); facts and definitions are still part of disciplinary knowledge development but embedded into multimodal knowledge constructs. In addition, text mining-driven activities are suitable for fostering differentiated learning by enabling students both to carry out investigation using various visualization-based digital tools and represent knowledge in a multimodal format.

Examples of text mining-driven activities devised using the SFL-informed 3×3 matrix developed in the present work are available in the following section. As previously mentioned, students should be able to access the activities in the course LMS space. In the same platform, the links to collaborative spaces (such as those in Mural[26]), where students can share their findings and comment on their peers' work, should be made available. Mural is a visualization-based collaborative space suitable for sharing and classifying information, negotiating and organizing ideas, commenting on each other's opinions (using a kind of feedback similar to that provided in social media), and co-building visually-enhanced knowledge. By integrating these practices into digitally-enhanced SFL-informed content-specific embedded literacy, recursive feedback on collaboratively generated knowledge can be fostered in keeping with the CoI model (Garrison, Anderson and Archer 2000; Garrison and Arbaugh 2007; Vaughan, Cleveland-Innes and Garrison 2013; Garrison 2017) and reflexive learning (Cope and Kalantzis 2017: 13-40), which highlight the need to provide extensive formative assessment on multimodal knowledge creation in online and blended learning environments.

25. "A broader definition [of metacognition] includes thinking that exemplifies disciplinary practice–to think like a historian, writer, or physicist. This requires explicit thinking about the methods of the discipline–for instance, how claims are supported by evidence in history or how persuasion works in writing or to explain mathematical thinking. It also involves theoretical work where learners not only immerse themselves in content, the facts of a topic, but also are able to relate these facts to overall explanatory frameworks, applying facts to frameworks and testing frameworks against facts" (Cope and Kalantzis 2017: 35).

26. *www.mural.co*.

The activities devised using the 3×3 matrix and provided in the following section focus, as mentioned above, on chapter five, i.e. "Immigration and the immigrant experience", of the open textbook "Canadian History: Post-Confederation" (Belshaw 2016). The chapter consists of an introduction, eleven subchapters, and the conclusion. The activities devised focus in particular on the introduction, the conclusion, and the subchapter called "Race, ethnicity, and immigration". For each activity, the items of the 3×3 matrix targeted are available as an outline.

3.3.3. Activity section

The activities devised are organized in three groups. The first group of activities focuses on chapter five "Immigration and the immigrant experience" of the open textbook "Canadian History: Post-Confederation" (Belshaw 2016), including the introduction, the subchapters, and the conclusion. The second group of activities promotes the comparison of the introduction and the conclusion of chapter five to show in particular how to carry out genre-based analysis from an SFL perspective. The third group of activities zeroes in on one of the subchapters of chapter five, specifically "Race, ethnicity, and immigration".

3.3.3.1. Activities: group A

In this section, the activities focus on chapter five "Immigration and the immigrant experience" of the open textbook "Canadian History: Post-Confederation" (Belshaw 2016).

Function / Level	*Whole text (entire textbook and/or a chapter of a textbook)*	*Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*Sentence / clause level*
A. Ideational	How do the introduction, the chapters, and the conclusion of a textbook organize subject-specific knowledge (such as key topics)?	How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	

The data used in the following activity have been retrieved with Voyant.

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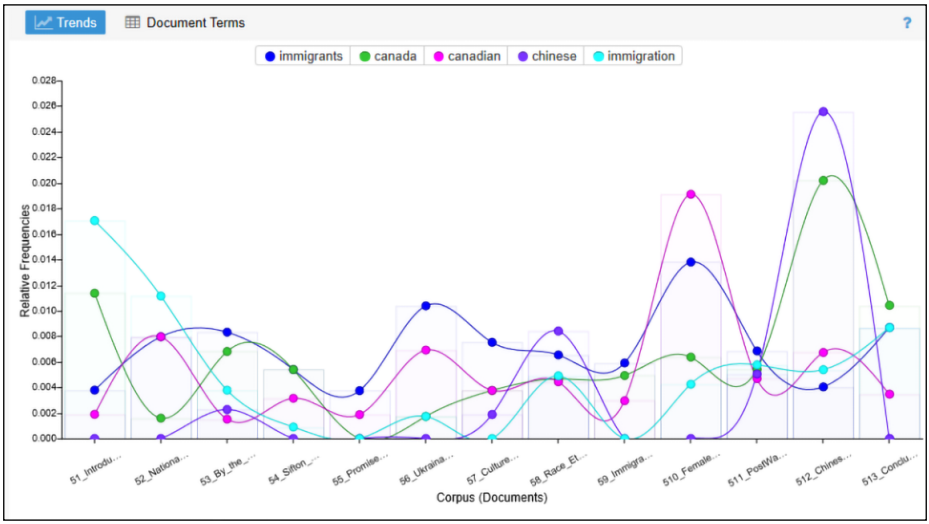
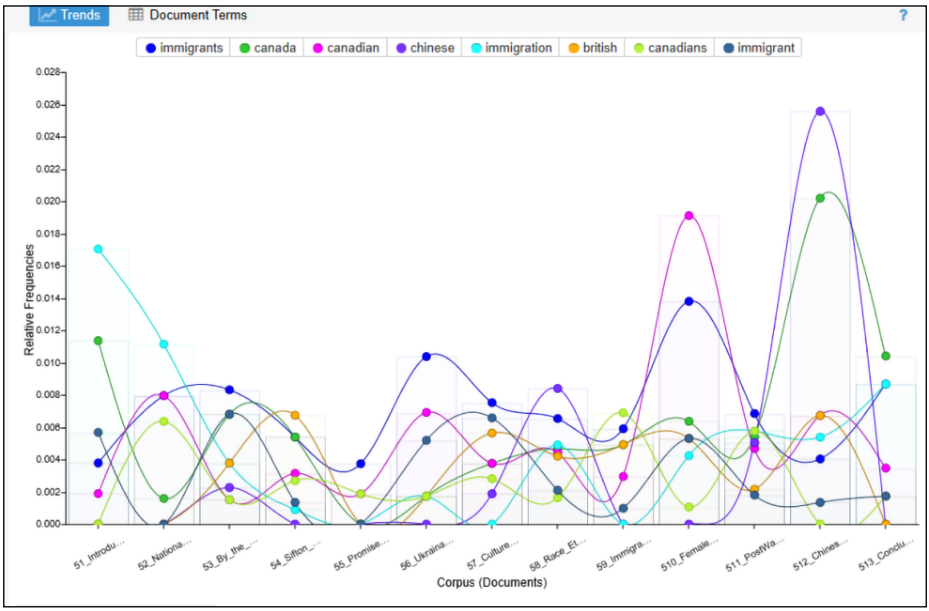
Look at the graphs below. How are the main topics organized in chapter five "Immigration and the immigrant experience"? How are the topics connected in the various stages of the chapter (introduction, subchapters, and conclusion)? Among the topics identified, which appear more frequently used in the introduction, in the subchapters, and in the conclusion? What do these data suggest in terms of topic management and subject-specific discourse throughout the chapter?
Discuss the data with your partner and then share your findings on Mural.





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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How do the introduction, the subchapters, and the conclusion of a textbook chapter organize subject-specific knowledge (such as key topics)?	How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	

The data used in the activity below have been retrieved with Voyant.

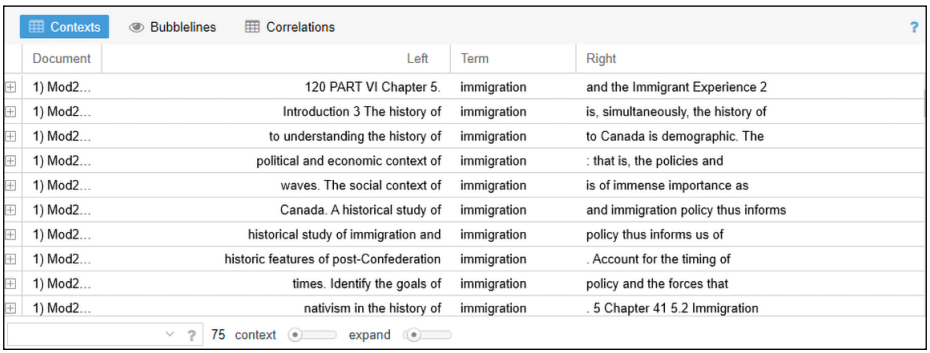
Look at the bubblelines below. How are the main concepts organized throughout chapter five "Immigration and the immigrant experience"? What are the main differences between the introduction, the subchapters, and the conclusion? In particular, where exactly (such as at the beginning, the center, or the end etc.) are the terms 'immigration' and 'immigrants' used in the introduction, the subchapters, and the conclusion? What emerges in sections 5.8 and 5.11? What do these data suggest in terms of topic organization?
Discuss the data with your partner and then share your findings on Mural.

 ISBN 9788835112129

Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How do the introduction, the subchapters, and the conclusion of a textbook chapter organize subject-specific knowledge (such as key topics)?	How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? How is implicitness connected to nominalization? What do these data suggest in terms of subject-specific discourse? In noun groups, what are the most common collocates of subject-specific vocabulary items?

The data used in the activity below have been retrieved with Voyant. A panel of Voyant is also embedded in the learning platform[27] so that students can carry out the course-customized corpus investigation directly within the online learning environment.

Look at the graph below and search the interactive interface for further investigation. How are abstract nouns, such as 'immigration' (examine also other abstract terms through the interactive interface), used throughout chapter five "Immigration and the immigrant experience"? How are concrete nouns, such as 'immigrants' and 'Chinese' (examine also other concrete terms through the interactive interface) used throughout the chapter? What do these data suggest in terms of topic organization and subject-specific discourse?
Discuss the data with your partner and then share your findings on Mural.



27. The activities presented have been created, made available and/or embedded in the panOpen platform previously illustrated.

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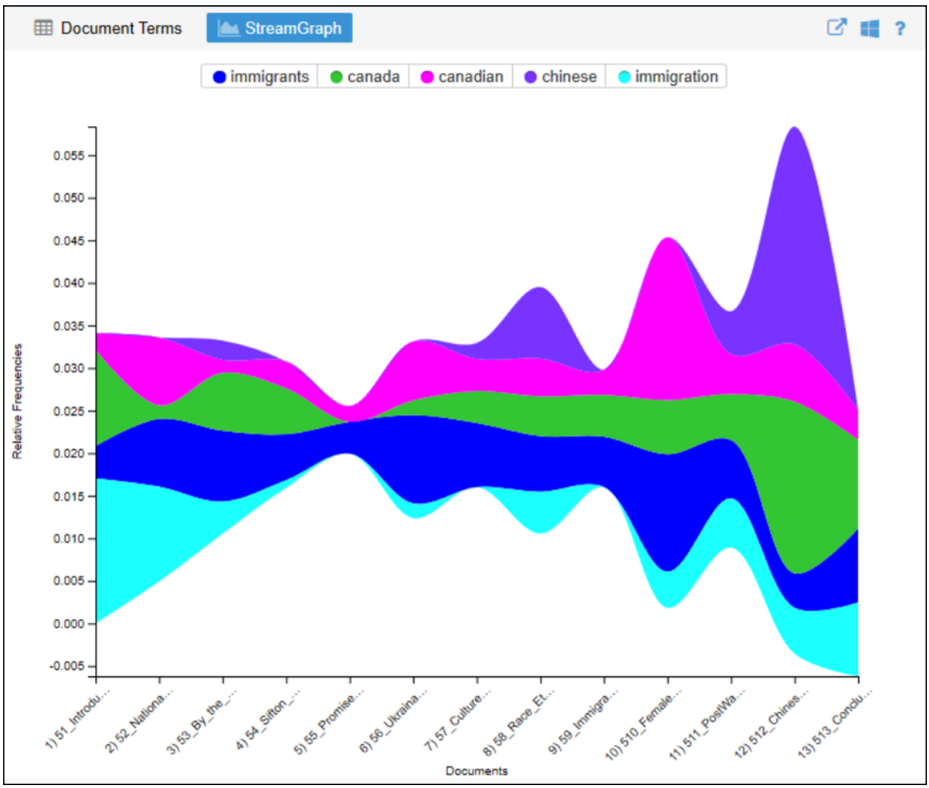

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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How do the introduction, the subchapters, and the conclusion of a textbook chapter organize subject-specific knowledge (such as key topics)?	How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	

The data used in the following activity have been retrieved through topic modelling[28] realized with Textalytic.

Look at how topics are interrelated in chapter five "Immigration and the immigrant experience" and specifically in (A) the subchapters, (B) the introduction, and (C) the conclusion. What do these data suggest in relation to the way the various topics are presented and aggregated in the different parts of the chapter? What do the data suggest in relation to the perspective adopted by the author?
Discuss the data with your partner and then share your findings on Mural.

Image A: The whole chaper

28. "Topic Modeling […] identifies clusters of words that could be the major 'topics' (distinctive terms that co-occur) of a large collection" (Rockwell and Sinclair 2016: 2656-2659).

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Image B: Introduction

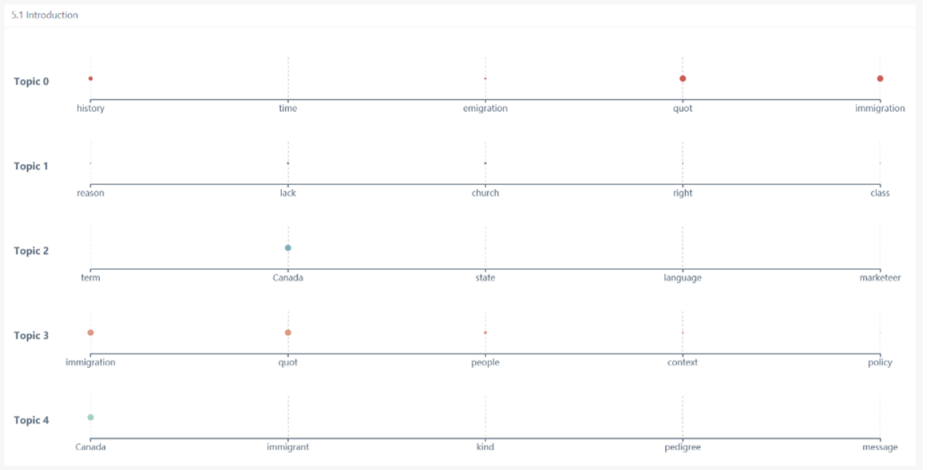

Image C: Conclusion

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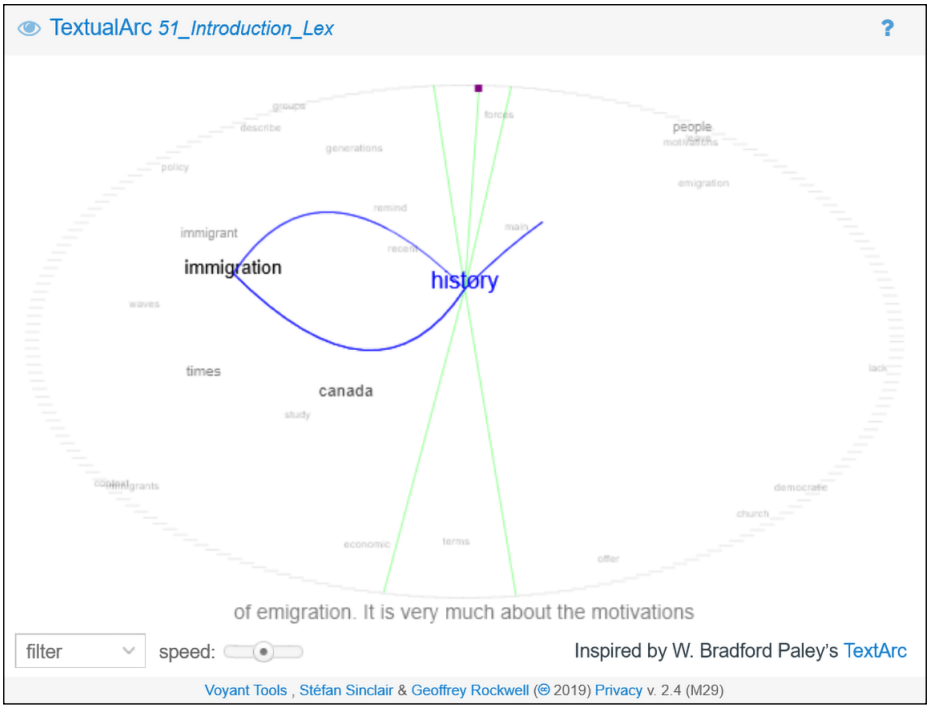
Function / Level	*7. Whole text (entire textbook and/or a chapter of a textbook)*	*8. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*9. Sentence / clause level*
C. textual	How are key topics previewed in the introductory sections (such as in the introduction of a chapter and the introductory section of a subchapter)?		

The data used in the activity below have been retrieved with Voyant. The TextualArc video is embedded in the learning platform. The same kind of activity can be used to analyze how key topics are reviewed in the final sections, namely the conclusions, of a chapter or subchapter of a (text)book.

Look at the TextualArc video and the images provided below. How are the main topics organized and previewed in the introduction of chapter five "Immigration and the immigrant experience"? What perspective emerges from the way the topics are organized? Why?
Discuss the data with your partner and then share your findings on Mural.



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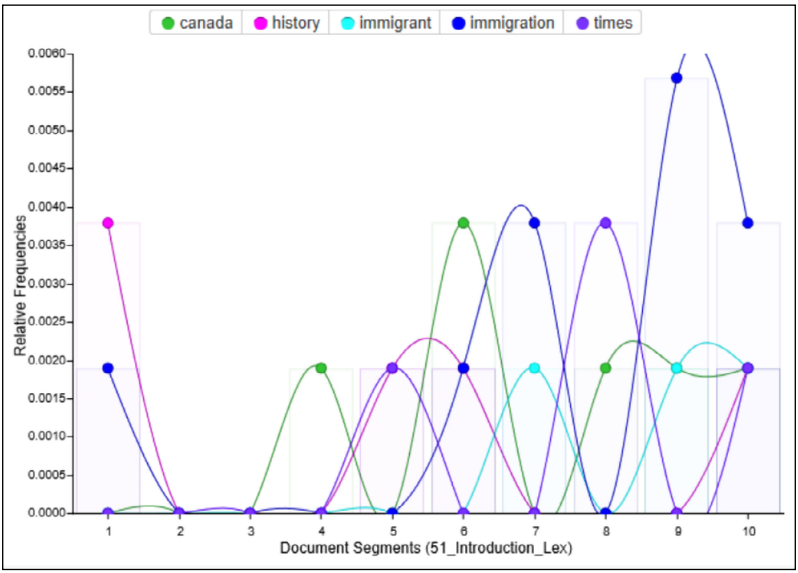

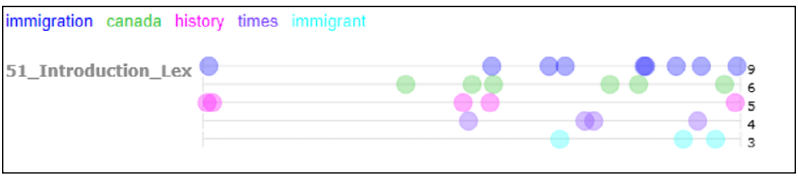

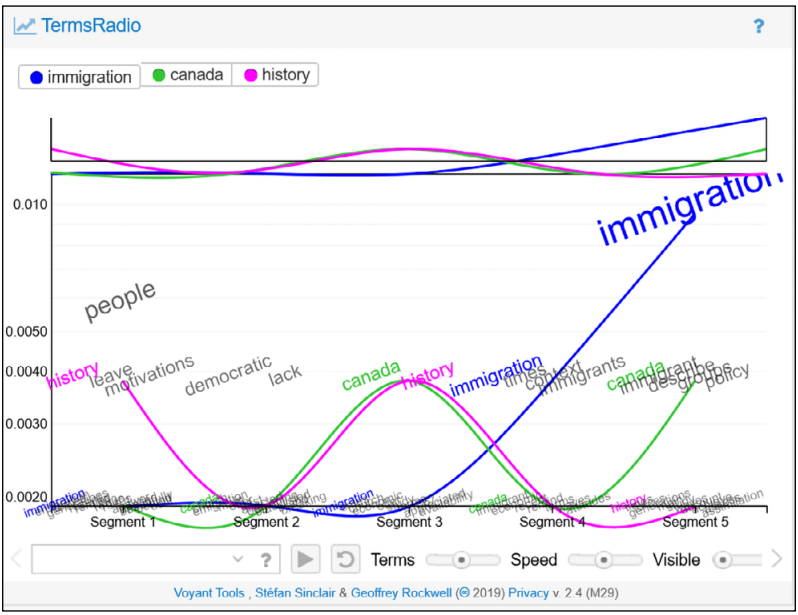

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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational			To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? How is implicitness connected to nominalization? What do these data suggest in terms of subject-specific discourse? Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? In noun groups, what are the most common collocates of subject-specific vocabulary items?

Function / Level	*7. Whole text (entire textbook and/or a chapter of a textbook)*	*8. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*9. Sentence / clause level*
C. textual			To what extent are nominalizations and abstract nouns used to package information? How and to what extent does grammatical metaphor (through nominalization) foster abstract language use?

An image of the Mural created for the activity that follows is provided:

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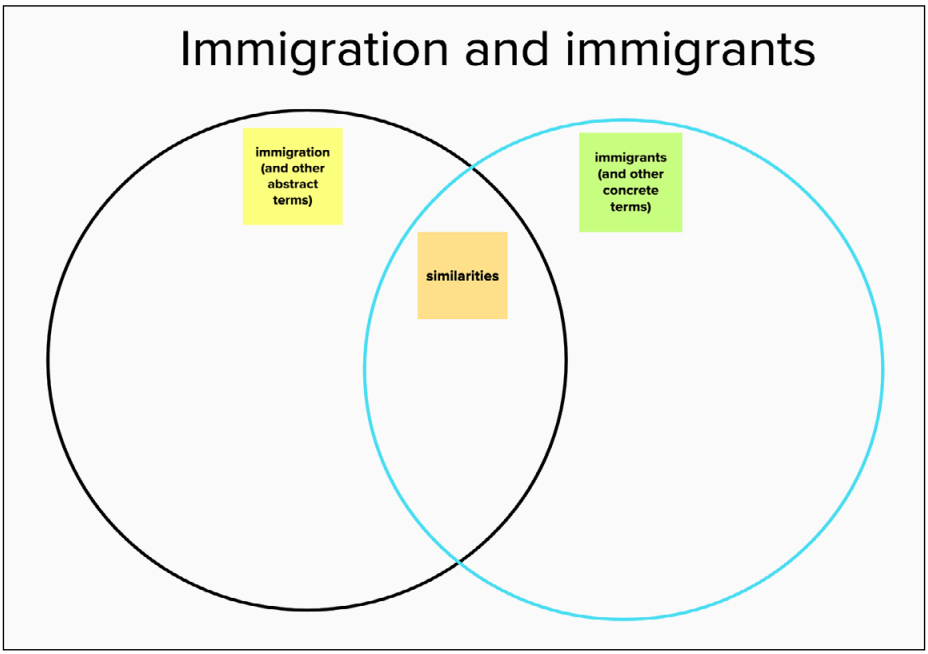

The following activity has been created with Voyant. The panel of Voyant is embedded in the learning platform so that students can carry out the course-customized corpus investigation directly within the online learning environment.

A) Investigate the word 'immigration' in the concordances of chapter five "Immigration and the immigrant experience" provided. What are the most commonly used collocates before and after the term? Is 'immigration' mainly pre- or post-modified?
How is 'immigration' mainly pre-modified (namely, with nouns, adjectives etc.)? Rewrite a few pre-modified noun phrases of immigration using (a) less dense language (that is, less pre- and/or post-modified nouns) and (b) everyday language. Which expressions are more implicit: those pre-modified or those which are not pre-modified? Why?
How is 'immigration' mainly post-modified (namely, with prepositional phrases, relative clauses etc.)? What is the most common preposition used to post-modify 'immigration'? Rewrite a few post-modified noun groups of immigration using (a) less dense language (that is, less pre- and/or post-modified nouns) and (b) everyday language; rewrite a pre- and post-modified noun phrase of immigration using (a) less dense language and (b) everyday language. Which expressions are more implicit? Why?
What do all the data suggest in relation to the subject-specific discourse and the way the author presents the topics? Does a positive or a negative evaluation of the phenomena presented emerge? Why?
Discuss the data with your partner and then share your findings on Mural.

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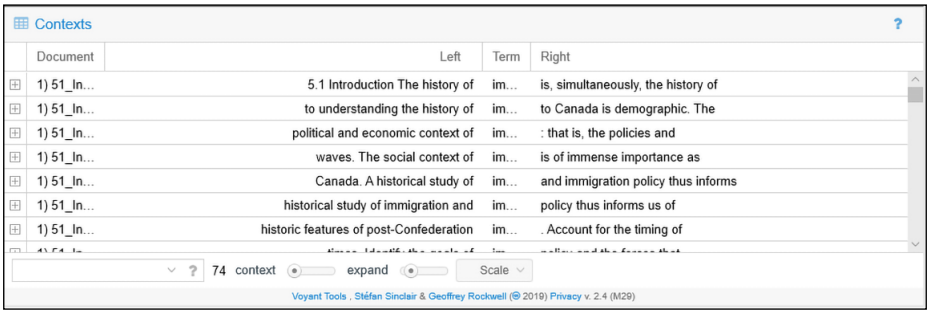
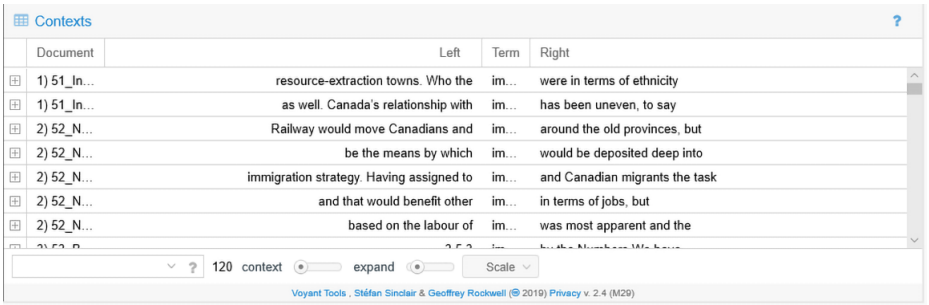


B) Investigate the word 'immigrants' in the concordances of chapter five "Immigration and the immigrant experience" provided. What are the most commonly used collocates before and after the term? Is the term mainly pre- or post-modified?
How is the term mainly pre-modified? Rewrite a few pre-modified noun phrases of 'immigrants' using less dense language (that is, less pre- and/or post-modified nouns). Which expressions are more implicit: those pre-modified or those which are not pre-modified? Why?
What is the most common preposition used to post-modify 'immigrants'? Rewrite a few post-modified noun groups of immigrants using less dense language (that is, less pre- and/or post-modified nouns); rewrite a pre- and post-modified noun phrase of 'immigrants' using less dense language. Which expressions are more implicit? Why?
What do the data suggest in relation to the subject-specific discourse and the author's personal view? Does a positive or a negative evaluation of the phenomena presented emerge? Why?
Discuss the data with your partner and then share your findings on Mural.

C) Are there differences in the way the concepts 'immigration' and 'immigrants' are presented in the chapter? If so, what are the main differences and/or similarities detected? What do they suggest in relation to the use of abstract and concrete nouns in the text in terms of content management and the way the author conveys his view of the phenomena presented?
Discuss the data with your partner and then share your findings on Mural.



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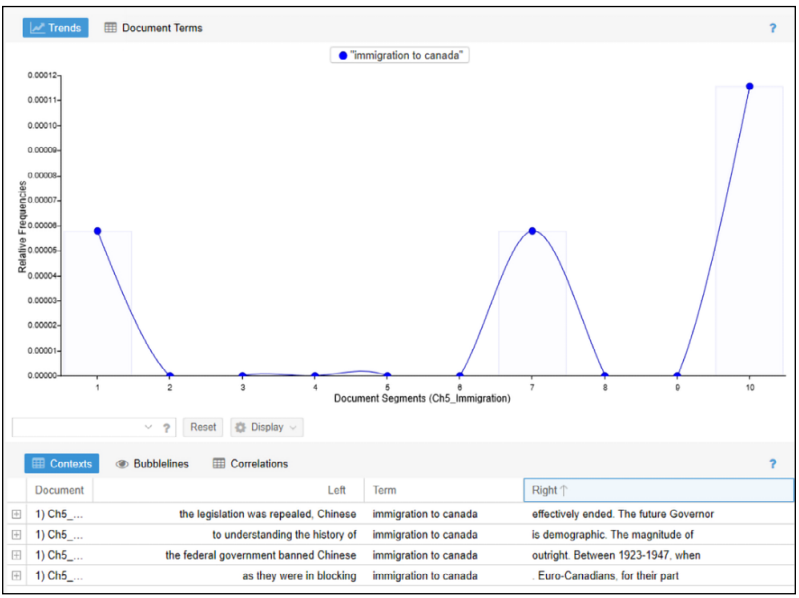
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational			Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? In noun groups, what are the most common collocates of subject-specific vocabulary items?

The data used in the activity below have been retrieved with Voyant.

Look at the trends and search the collocates of the phrase ‘immigration to Canada’ in chapter five “Immigration and the immigrant experience”. How is the phrase mainly pre- and post-modified? Where exactly in the chapter (such as at the beginning, the center, or the end etc.) is the phrase mainly pre- and/or post-modified? What do the data retrieved suggest in terms of subject-specific discourse? What kind of evaluation of the phenomenon investigated emerges from trends and collocations? Why?
Discuss the data with your partner and then share your findings on Mural.



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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text?	Do abstract and concrete nouns refer to people, things, or ideas? How is implicitness connected to nominalization? What do these data suggest in terms of subject-specific discourse? Which article (a/the) is mostly used? Why? Where exactly in the text? In noun groups, what are the most common collocates of subject-specific vocabulary items?

The data used in the activity below have been retrieved with Voyant. The interactive interface of Voyant is embedded in the learning platform.

Select the phrases in the list below (you are also free to search further phrases) using the interactive interface provided. Analyzing the concordances and trends generated, examine where exactly in the chapter and how they are used in chapter five "Immigration and the immigrant experience". What do the data retrieved suggest in relation to the way the topic of immigration is presented in the text? What words and trends helped you formulate the hypotheses?

- the history of immigration
- distribution of immigration
- English speaking immigrants
- large numbers of
- the Chinese community
- the promised land
- the prospect of

Discuss the data with your partner and then share your findings on Mural.

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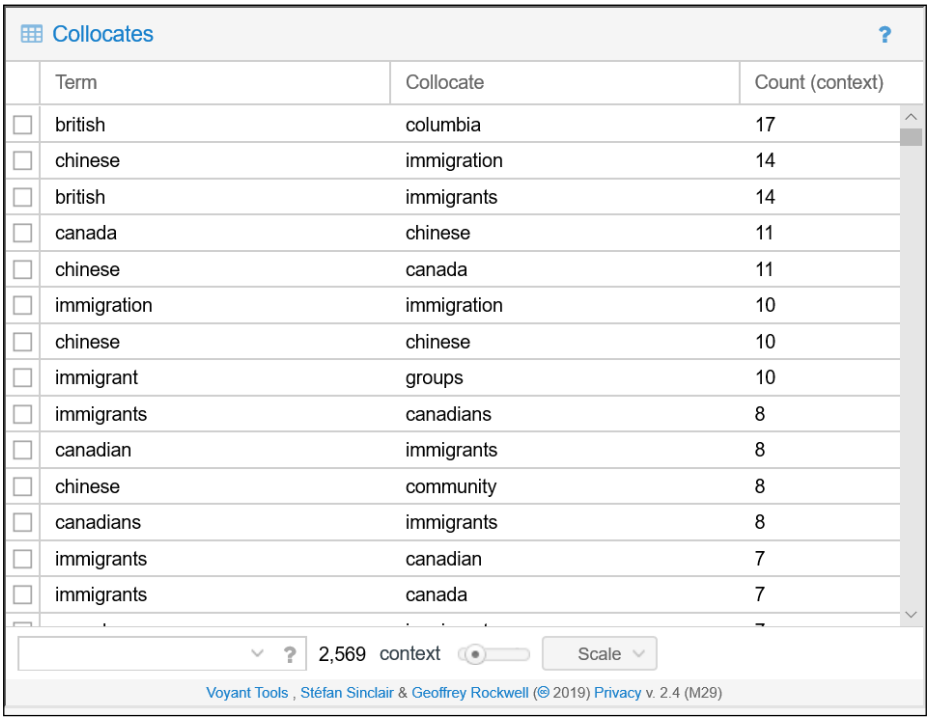
Function / Level	*1. Whole text (entire textbook and/ or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are key topics and topic patterns organized in the various middle sections of a textbook chapter?	To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? How is implicitness connected to nominalization? What do these data suggest in terms of subject-specific discourse? Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? In noun groups, what are the most common collocates of subject-specific vocabulary items?

The data used in the activity below have been retrieved with Voyant. The interactive interface of Voyant is embedded in the learning platform.

Browse the most commonly used collocations of chapter five "Immigration and the immigrant experience" in the interactive interface provided. What do they suggest in relation to how the main topics are presented in the chapter? What is the relationship between abstract and concrete words? Do abstract and concrete nouns refer mainly to people, things, or ideas? What do the data suggest in terms of subject-specific discourse? Discuss the data with your partner and then share your findings on Mural.



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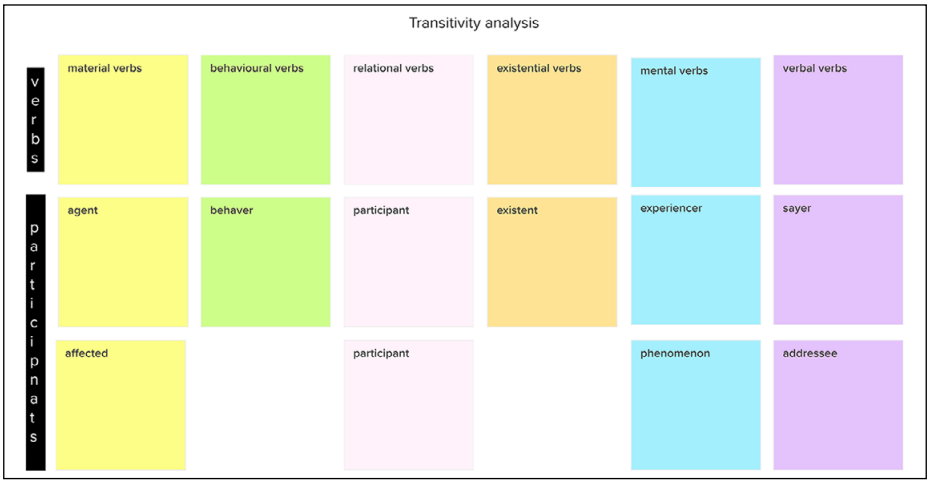
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational			Transitivity analysis. What types of verbs are mostly used? What types of participants are mostly used? What kinds of prepositional phrases (circumstances) and adverbs (encoding time, place, manner, frequency, duration) are mostly used? What do these data suggest? How do these data convey the writer's worldview? To what extent do the types of verbs used convey the processes specific to the genre (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)?

The data used in the following activity have been retrieved with FLAIL (existential verbs) and Textalytic (the top occurring verbs). The activity is devised to introduce students to transitivity analysis in an easy way. An image of the Mural created for the activity is provided below; the information used in the Mural is retrieved from Coffin, Donohue and North (2009: 291-308)[29].



Look at the data provided. What types of verbs are the top occurring in chapter five "Immigration and the immigrant experience"?

29. See chapter 3.

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- To what extent do these types of verbs convey the processes specific to a subject-specific discourse of history (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)? What do these data suggest in relation to the subject-specific discourse specific to a history textbook and the way the content of the chapter is presented?
- What is the main role assigned to participants? Do they overall emerge as active or passive? What do these data suggest in relation to the way content is presented and the subject-specific discourse of history?

Discuss the data with your partner and then share your findings on Mural.

Construction	Count	Weight
Clauses > There is/are	4	(1)
Clauses > There was/were	24	(1)

Ch5_Immigration
Verbs

Word	Count
were	225
was	215
is	62
be	61
had	53
would	42
have	30
been	28
born	24
became	23

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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational			What kinds of tenses are mostly used? To what extent are the tenses relevant to the genre?

The data used in the activity below have been retrieved with FLAIR.

What are the most frequently occurring tenses in chapter five "Immigration and the immigrant experience"? What do these data suggest in relation to the subject-specific discourse specific to a history textbook and the way the content of the chapter is presented?
Discuss the data with your partner and then share your findings on Mural.

Verbs > Tenses > Future perfect progressive tense	0
Verbs > Tenses > Future perfect tense	0
Verbs > Tenses > Future progressive tense	2
Verbs > Tenses > Future simple tense	1
Verbs > Tenses > Past perfect progressive tense	26
Verbs > Tenses > Past perfect tense	23
Verbs > Tenses > Past progressive tense	851
Verbs > Tenses > Past simple tense	2
Verbs > Tenses > Present perfect progressive	32
tense	1
Verbs > Tenses > Present perfect tense	154
Verbs > Tenses > Present progressive tense	2
Verbs > Tenses > Present simple tense	901

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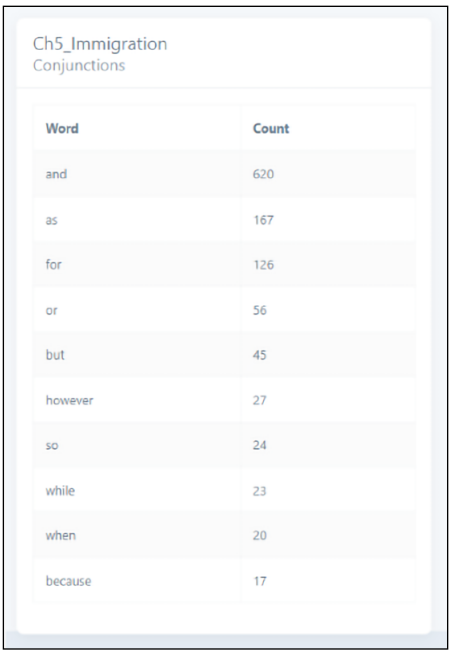
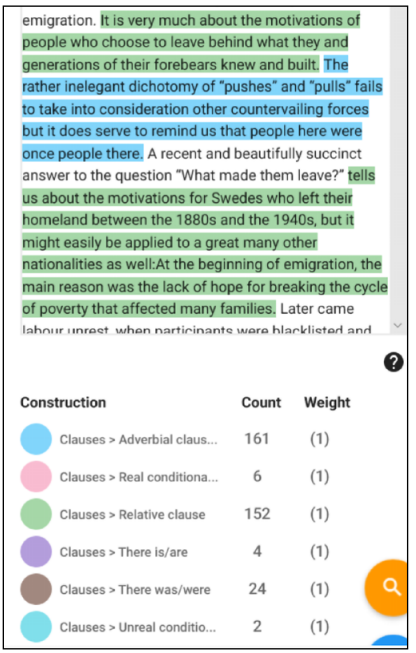
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		What are the most frequently occurring logical relations (such as cause, time, comparison, concession, consequence, addition etc.) in the text? What do these data suggest in terms of how the topic is logically expanded in the subject-specific text? How are logical relations (such as cause, time, comparison, concession, consequence, addition) instrumental in fostering the development and expansion of ideas in the text?	What conjunctions are mostly used? What do the data suggest?

The data used in the activity below have been retrieved with Textalytic and FLAIR. The same kind of activity can be used to analyze the same elements specifically in the introduction, subchapters, and conclusion of a book chapter.

Look at the top occurring conjunctions in chapter five "Immigration and the immigrant experience". What do they suggest in relation to the most commonly used types of clauses (simple, complex, independent, dependent) used? What are the most frequently occurring logical relations (such as cause, time, comparison, concession, consequence, addition) in chapter 5? What do these data suggest in terms of how the topic is logically expanded (such as cause/effect) in the subject-specific history text?
Discuss the data with your partner and then share your findings on Mural.





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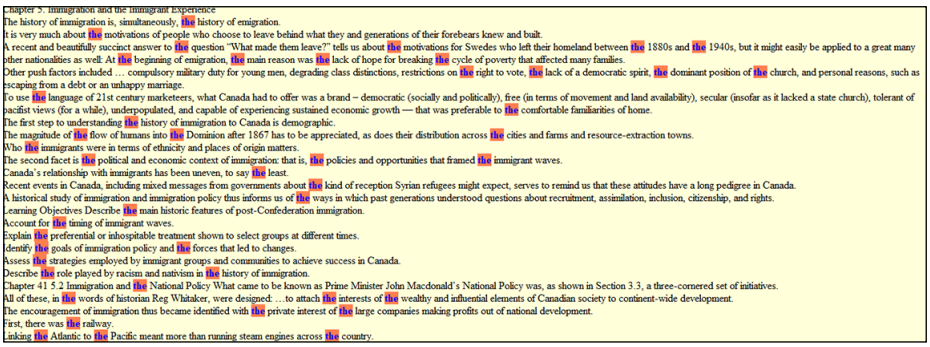
Function / Level	*1. Whole text (entire textbook and/ or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational			Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? In noun groups, what are the most common collocates of subject-specific vocabulary items?

The data used in the activity below have been retrieved with FLAIR and Text Feature Analyser. Here only a part of the text retrieved from FLAIR is provided as an example; to enable students to carry out a thorough examination, the whole file (with the articles highlighted) is embedded in the learning platform. The interactive interface of Voyant is embedded in the platform.

Look at the images provided and carry out further investigation using Voyant. How are the articles 'a/an' and 'the' used in chapter five "Immigration and the immigrant experience"? Which one is used the most? Why? To what extent is the use of 'the' linked to the nominalization process as well as pre- and post-noun modification? To what extent is the use of 'the' connected to grammatical metaphor? To what extent is the use of 'the' connected to increased degrees of implicitness in the contexts investigated? Why? What do the data suggest in terms of subject-specific discourse?
Discuss the data with your partner and then share your findings on Mural.


Chapter 5. Immigration and the Immigrant Experience
The history of immigration is, simultaneously, the history of emigration.
It is very much about the motivations of people who choose to leave behind what they and generations of their forebears knew and built.
A recent and beautifully succinct answer to the question "What made them leave?" tells us about the motivations for Swedes who left their homeland between the 1880s and the 1940s, but it might easily be applied to a great many other nationalities as well: At the beginning of emigration, the main reason was the lack of hope for breaking the cycle of poverty that affected many families.
Other push factors included … compulsory military duty for young men, degrading class distinctions, restrictions on the right to vote, the lack of a democratic spirit, the dominant position of the church, and personal reasons, such as escaping from a debt or an unhappy marriage.
To use the language of 21st century marketeers, what Canada had to offer was a brand – democratic (socially and politically), free (in terms of movement and land availability), secular (insofar as it lacked a state church), tolerant of pacifist views (for a while), underpopulated, and capable of experiencing sustained economic growth — that was preferable to the comfortable familiarities of home.
The first step to understanding the history of immigration to Canada is demographic.
The magnitude of the flow of humans into the Dominion after 1867 has to be appreciated, as does their distribution across the cities and farms and resource-extraction towns.
Who the immigrants were in terms of ethnicity and places of origin matters.
The second facet is the political and economic context of immigration: that is, the policies and opportunities that framed the immigrant waves.
Canada's relationship with immigrants has been uneven, to say the least.
Recent events in Canada, including mixed messages from governments about the kind of reception Syrian refugees might expect, serves to remind us that these attitudes have a long pedigree in Canada.
A historical study of immigration and immigration policy thus informs us of the ways in which past generations understood questions about recruitment, assimilation, inclusion, citizenship, and rights.
Learning Objectives Describe the main historic features of post-Confederation immigration.
Account for the timing of immigrant waves.
Explain the preferential or inhospitable treatment shown to select groups at different times.
Identify the goals of immigration policy and the forces that led to changes.
Assess the strategies employed by immigrant groups and communities to achieve success in Canada.
Describe the role played by racism and nativism in the history of immigration.
Chapter 41 5.2 Immigration and the National Policy What came to be known as Prime Minister John Macdonald's National Policy was, as shown in Section 3.3, a three-cornered set of initiatives.
All of these, in the words of historian Reg Whitaker, were designed: …to attach the interests of the wealthy and influential elements of Canadian society to continent-wide development.
The encouragement of immigration thus became identified with the private interest of the large companies making profits out of national development.
First, there was the railway.
Linking the Atlantic to the Pacific meant more than running steam engines across the country.

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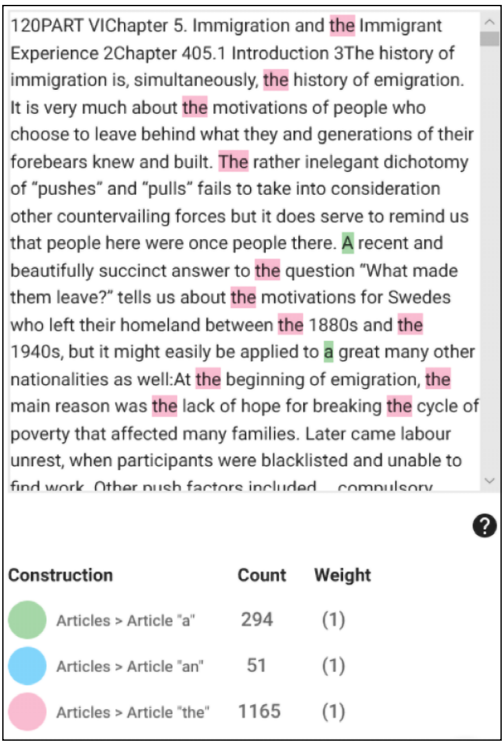

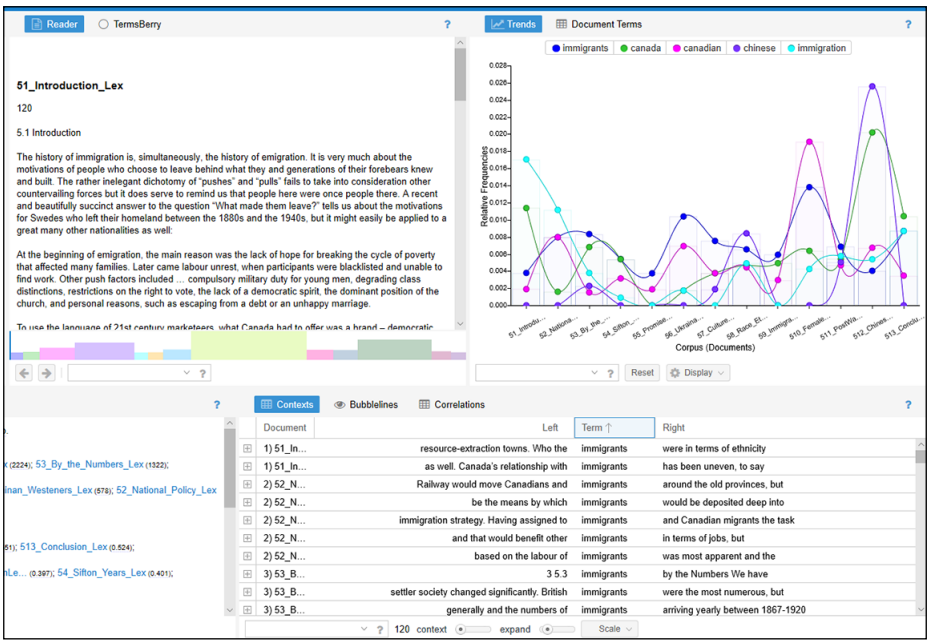

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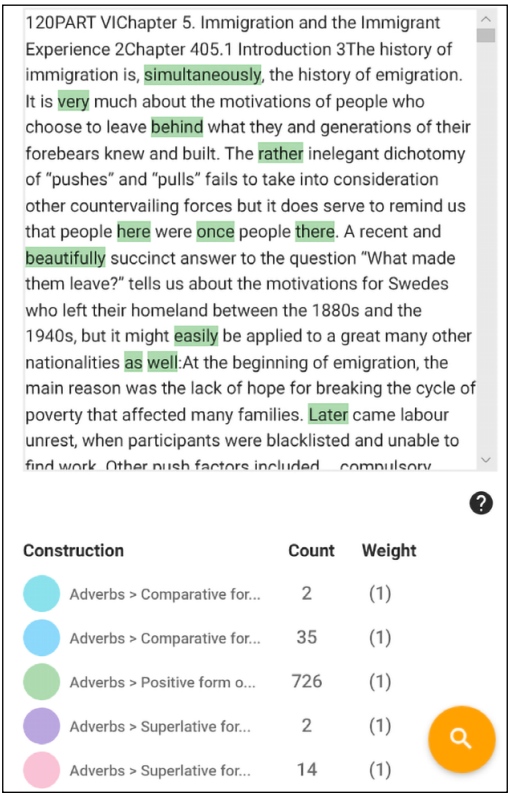
Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal		To what extent is evaluation conveyed through grading elements?	

The data used in the activity below have been retrieved with FLAIR. Here only a part of the text is provided as an example; to enable students to carry out a thorough examination, the whole file (with the targeted elements highlighted) is embedded in the learning platform. The interactive interface of Voyant is embedded in the platform.

Look at the image below and carry out further investigation using Voyant. How are adverbs usually used in chapter five "Immigration and the immigrant experience"? To what extent is evaluation conveyed through grading elements (such as comparatives and superlatives)? What do the data suggest in terms of subject-specific discourse and the way the author presents the topics?
Discuss the data with your partner and then share your findings on Mural.



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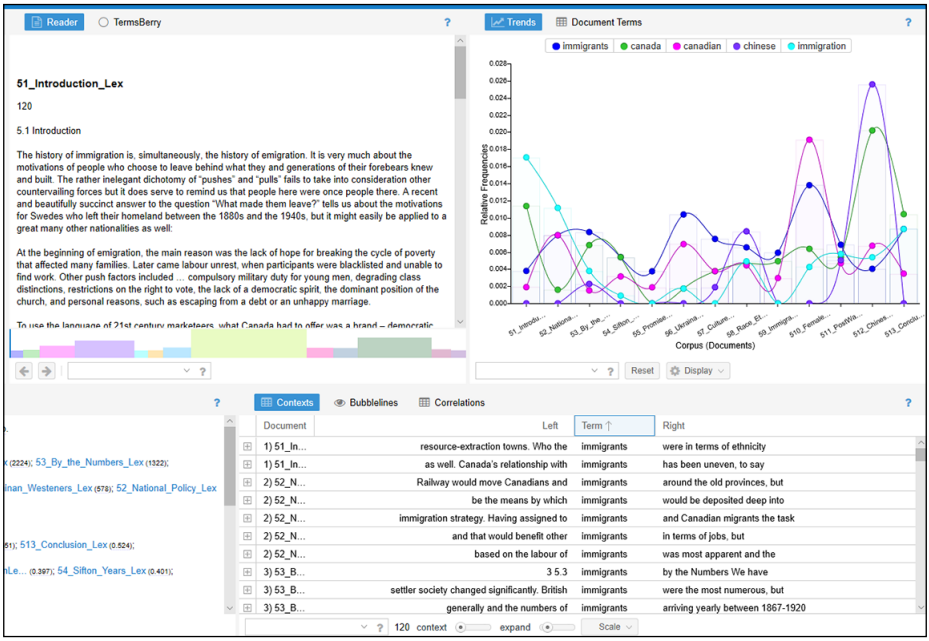

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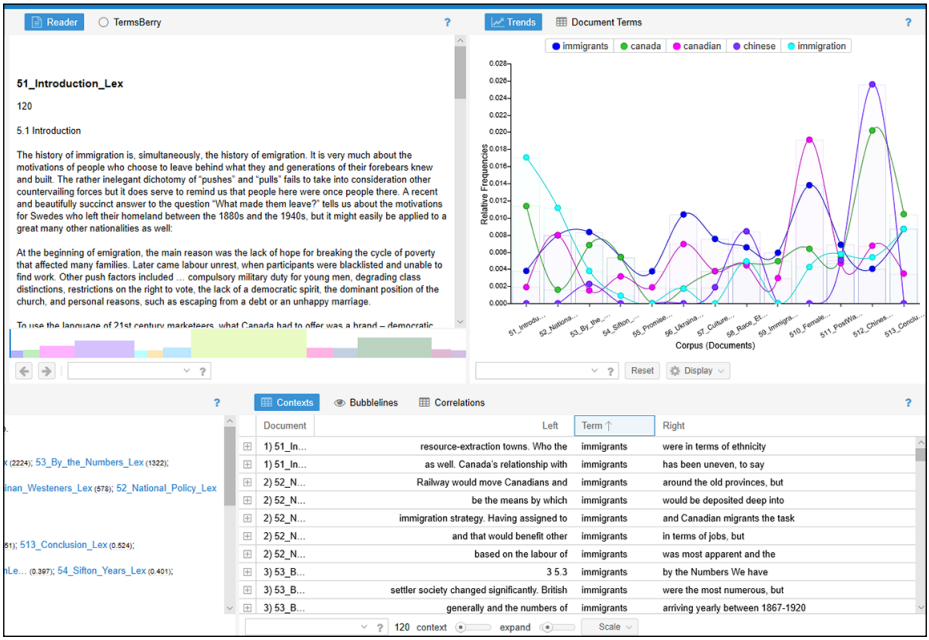
Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal		To what extent is evaluation conveyed through grading elements?	

To carry out the activity below, students have to use Voyant. The interactive interface of Voyant is embedded in the learning platform.

Investigate the amplifiers and the downtoners (some examples are provided[30] below) in chapter five "Immigration and the immigrant experience" using Voyant. To what extent is evaluation conveyed through grading elements (such as amplifiers and downtoners)? What do the data suggest in terms of subject-specific discourse and the way the author presents and evaluates the topics?
Discuss the data with your partner and then share your findings on Mural.

Amplifiers	*Downtoners*	
in fact	probably	
actually	almost	
too	possibly	
more	like	
indeed	a little	
certainly	kind of	
real	perhaps	
really	maybe	
	pretty	
	sort of	

30. The list here provided is based on that given in S. Conrad and D. Biber (2009). *Real Grammar: A Corpus-Based Approach to English.* White Plains, NY: Pearson/Longman, 76.



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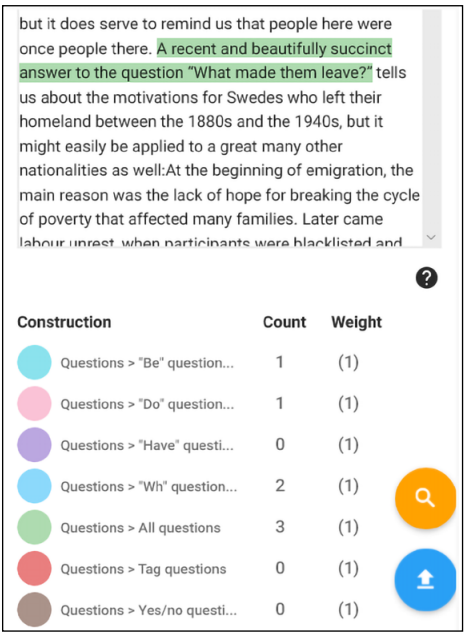
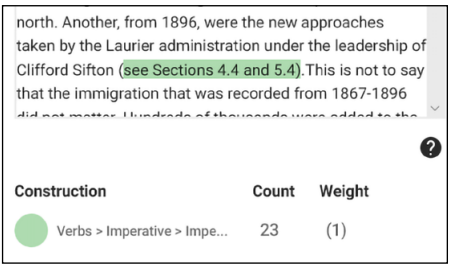
Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal	What is the main objective of the text (e.g. to inform, report, persuade etc.)?	Is the interaction with the reader mainly based on providing information, giving orders / instructions / commands, and/or asking questions? What do these data suggest in terms of subject-specific discourse?	

The data used in the activity below have been retrieved with FLAIR. Here only a part of the text is provided as an example; to enable students to carry out a thorough examination, the whole file (with the targeted elements highlighted) is embedded in the learning platform.

Look at the images below. How often are questions and imperatives used in chapter five "Immigration and the immigrant experience"? Is the interaction with the reader mainly based on providing information, giving orders / instructions / commands, and/or asking questions? What do the data suggest in relation to the subject-specific discourse used in a history book chapter and the way the writer engages with the reader?
Discuss the data with your partner and then share your findings on Mural.





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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How does the writer provide information? Does the writer try to align the reader with his/her view? If so, how?		

Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal	To what extent is information presented as factual or tentative? To what extent is information provided in an authoritative and impersonal way? Does the writer try to make the reader agree with his/her stance/claims/worldview? If so, how?		How and to what extent do writers hedge their positions with modal verbs and/or other words / expressions conveying the same meaning?

The interactive interface of Voyant is embedded in the learning platform. The same kind of activity can be used to analyze whether the evaluative stance is used to the same extent in the various sections (such as the introduction, the chapters/subchapters, and the conclusion) of the textbook/textbook chapters investigated.

Read the following definition of stance:

"Stance. They express a textual 'voice' or community recognized personality which, following others, I shall call stance. This can be seen as an attitudinal dimension and includes features which refer to the ways writers present themselves and convey their judgements, opinions, and commitments. It is the ways that writers intrude to stamp their personal authority onto their arguments or step back and disguise their involvement." (Hyland 2005: 176).

Now, investigate the use of the epistemic stance adverbials (some examples are provided) in chapter five "Immigration and the immigrant experience" using Voyant. To what extent are they used? What do the data suggest in terms of subject-specific discourse and the way the author presents the topics and conveys evaluation?
Discuss the data with your partner and then share your findings on Mural.

- *Certainty/doubt adverbials include*: no doubt, certainly, undoubtedly, probably, perhaps, maybe, arguably, decidedly, definitely, incontestably, incontrovertibly, most likely, very likely, quite likely, of course, I guess, I think, I bet, I suppose, who knows (Biber, Conrad and Leech 2002: 383).

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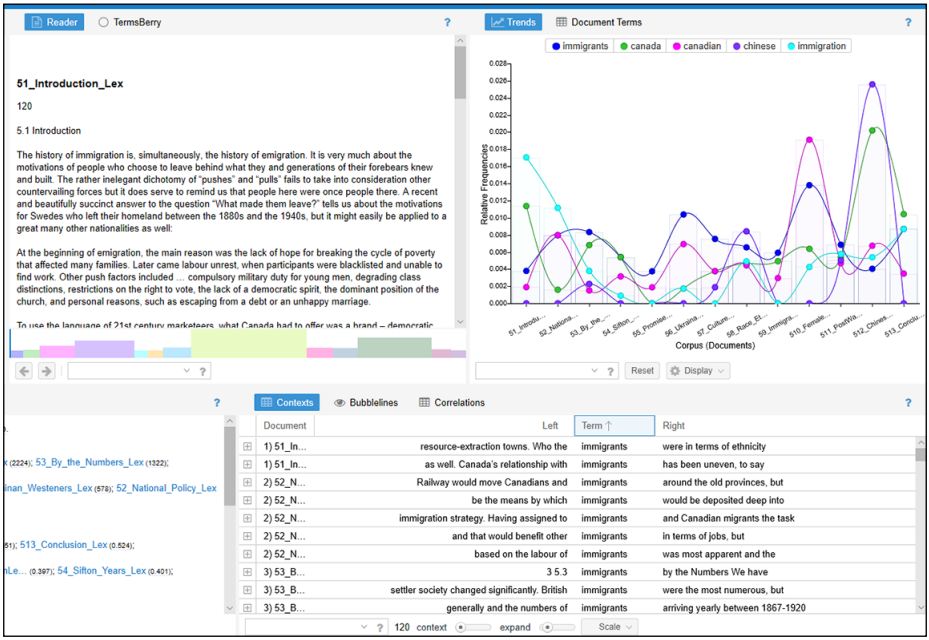
- *Actuality and reality adverbials include*: in fact, really, actually, in actual fact, for a fact, truly (*ibidem*).
- *Source of knowledge adverbials include*: evidently, apparently, reportedly, reputedly, according to X, as X reports/notes (*ibidem*).
- *Limitation stance adverbials include*: in most cases, in most instances, mainly, typically, generally, in general, on the whole (*ibidem*).
- *Viewpoint or perspective adverbials include*: in our view, from our perspective, to my knowledge, to the best of our knowledge (ivi: 384).
- *Imprecision adverbials include*: like, sort of, kind of, so to speak, if you can call it that (*ibidem*).



Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How does the writer provide information? Does the writer try to align the reader with his/her view? If so, how?		

Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal	To what extent is information presented as factual or tentative? To what extent is information provided in an authoritative and impersonal way? Does the writer try to make the reader agree with his/her stance/claims/ worldview? If so, how?	How does the writer position the reader in relation to the information presented? To what extent is the reader presented as aligned with the writer's stance?	How and to what extent do writers hedge their positions with modal verbs and/or other words / expressions conveying the same meaning? What personal pronouns do writers use? When do they use them? How do the pronouns used position the writer and the reader? To what extent are pronouns used? What pronouns are mainly used? Why? What do these data suggest in terms of subject-specific discourse?

The interactive interface of Voyant is embedded in the learning platform. The same kind of activity can be used to analyze whether the evaluative stance is used to the same extent in the various sections (such as the introduction, the chapters/subchapters, and the conclusion) of the textbook/textbook chapters investigated.

Investigate the use of stance (some guidelines and examples are provided[31]) in chapter five "Immigration and the immigrant experience" using Voyant. To what extent is stance used? What do the data suggest in terms of subject-specific discourse and the way the author presents the topics and conveys evaluation?
Discuss the data with your partner and then share your findings on Mural.

31. Section of "a model of metadiscourse in academic texts" (Hyland 2004: 139).

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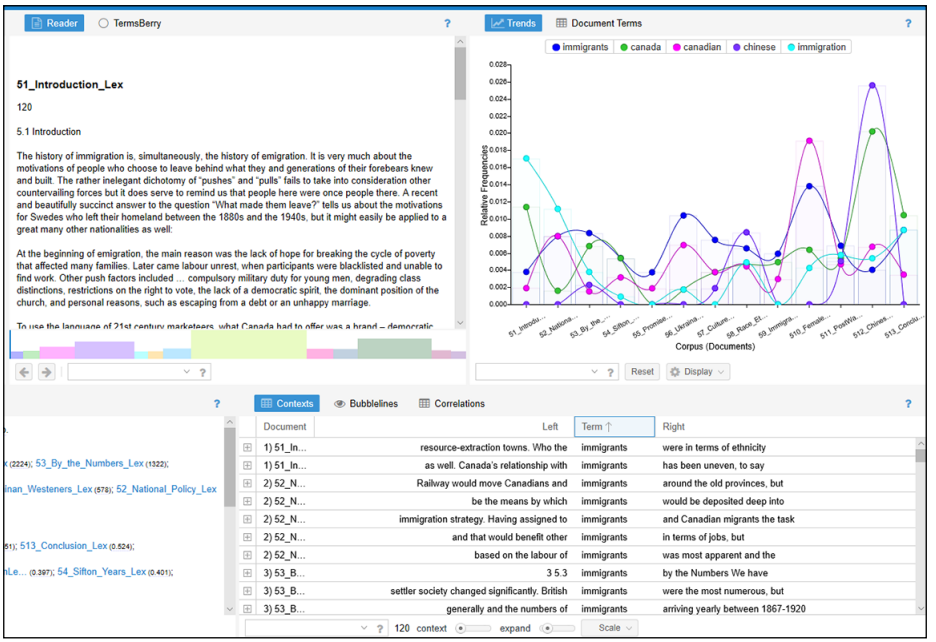
Interactional resources	*Involve the reader in the argument*	*[Examples]*
Hedges	Withhold writer's full commitment to proposition	Might/perhaps/possible/ about
Boosters	Emphasise force or writer's certainty in proposition	In fact definitely/it is clear that
Attitude markers	Express writer's attitude to proposition	Unfortunately/I to agree/surprisingly
Engagement markers	Explicitly refer to or build relationship with reader	Consider/note that/you can see that
Self-mentions	Explicit reference to author(s)	I/we/my/our



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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How does the writer provide information? Does the writer try to align the reader with his/her view? If so, how?		

Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal	To what extent is information presented as factual or tentative? To what extent is information provided in an authoritative and impersonal way? Does the writer try to make the reader agree with his/her stance/ claims/worldview? If so, how?		

The interactive interface of Voyant is embedded in the learning platform. The same kind of activity can be used to analyze whether the evaluative stance is used to the same extent in the various sections (such as the introduction, the chapters/subchapters, and the conclusion) of the textbook/textbook chapters investigated.

Read the following definitions of engagement and then carry out the activity provided:

"Within the function of engagement, the speaker can simply put forward something which he accepts as being his own position or he can express it in relation to other possible points of view. In the first case, where he baldly states something as being his own opinion, it is said to be 'monoglossic'; in the second case, where he puts forward something taking into account other points of view, it is said to be 'heteroglossic'. Where we have heteroglossic engagement, it is possible to distinguish between 'disclaiming', 'proclaiming', 'entertaining' and 'attributing'. […] In heteroglossic engagement, disclaiming is where the speaker presents something as being the position of others, but which he does not necessarily accept, by denying or countering it in some way. […] Proclaiming […] is where the speaker specifically accepts or approves the point of view put forward. […] Attributing is where the speaker presents something as being the point of view of someone else, and so, at least by implication, not necessarily his own point of view" (Banks 2019: 75-76).

"We begin with what we term 'entertain' – those wordings by which the authorial voice indicates that its position is but one of a number of possible positions and thereby, to greater or lesser degrees, makes dialogic space for those possibilities. The authorial voice entertains those dialogic alternatives. This is a semantic domain which has traditionally been covered in the literature under the headings of 'epistemic modality' (eg Palmer

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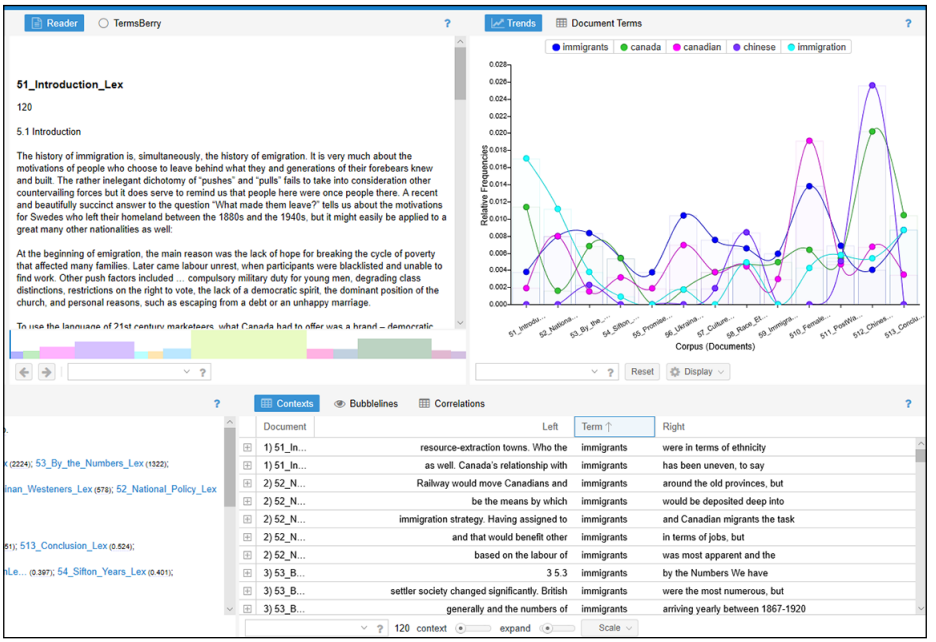
1986 or Coates 1983) and 'evidentiality' (eg Chafe & Nichols 1986). Within the systemics tradition it is dealt with under the heading of 'modals of probability', 'reality phase' and certain types of 'interpersonal metaphor' […]. It encompasses meanings by which speaker/writer makes assessments of likelihood via modal auxiliaries (may, might, could, must etc.) via modal adjuncts (perhaps, probably, definitely etc.), via modal attributes (it's possible that…, it's likely that… etc.), via circumstances of the *in my view* type, and via certain mental verb/attribute projections (I suspect that…, I think, I believe, I'm convinced that, I doubt etc.). […] This sub-category of entertain also includes evidence/appearance-based postulations (it seems, it appears, apparently, the research suggests etc.) and certain types of 'rhetorical' or 'expository' questions (those which don't assume a specific response but are employed to raise the possibility that some proposition holds)" (Martin and White 2005: 104-105).

Investigate the reporting verbs (some examples are provided[32]) used in chapter five "Immigration and the immigrant experience" using Voyant. To what extent are they used? To what extent is thus engagement – "Engagement is concerned with whether the speaker takes other points of view into account or not" (Banks 2019: 78) – used? Is the text monoglossic or heteroglossic? If the text is heteroglossic, is it mainly disclaiming, proclaiming or attributing? What do the data suggest in terms of subject-specific discourse and the way the author presents the topics, conveys evaluation, and introduces other scholars' views?
Discuss the data with your partner and then share your findings on Mural.

Reporting verbs	*Frequency*
Certainty level: very certain	
conclude	
demonstrate	
describe	
explain	
find	
note	
present	
prove	
report	
show	
state	

32. The list here provided is based on that given in S. Conrad and D. Biber (2009). *Real Grammar: A Corpus-Based Approach to English.* White Plains, NY: Pearson/Longman, 112.

Certainty level: less certain	
argue	
claim	
contend	
hypothesize	
imply	
indicate	
maintain	
postulate	
propose	
suggest	



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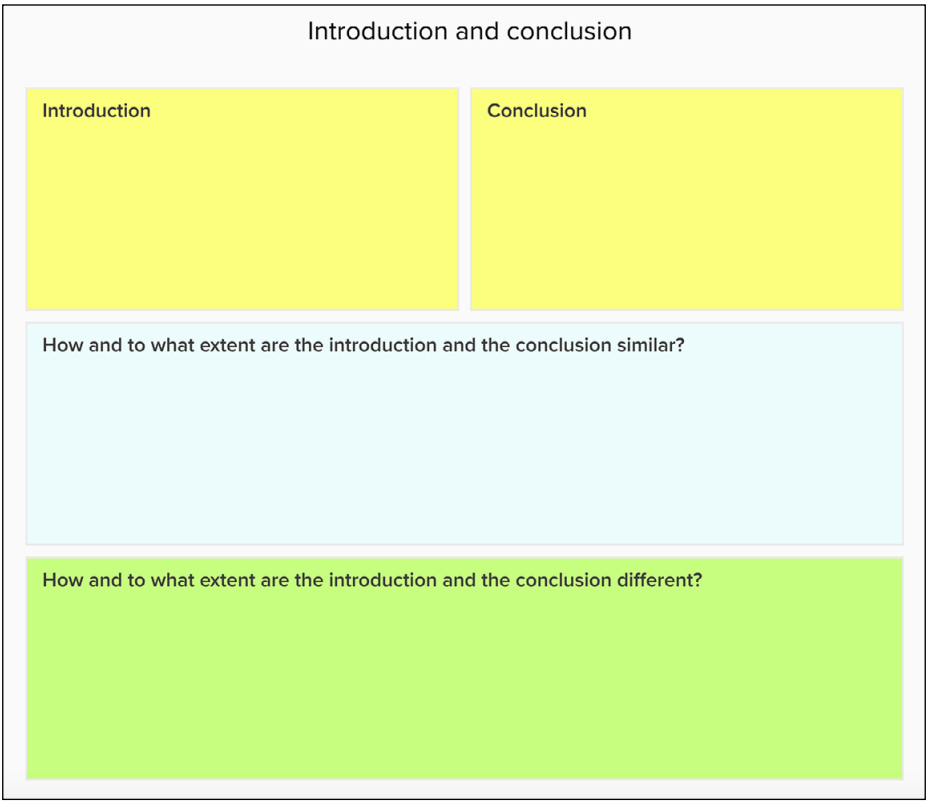
3.3.3.2. Activities: group B

In this section, the activities focus on the introduction and the conclusion of chapter five, “Immigration and the immigrant experience”, of the open textbook “Canadian History: Post-Confederation” by Belshaw (2016).

Upon completion of all the activities focusing on the introduction and the conclusion of chapter 5, students organize the main findings on the Mural provided below.



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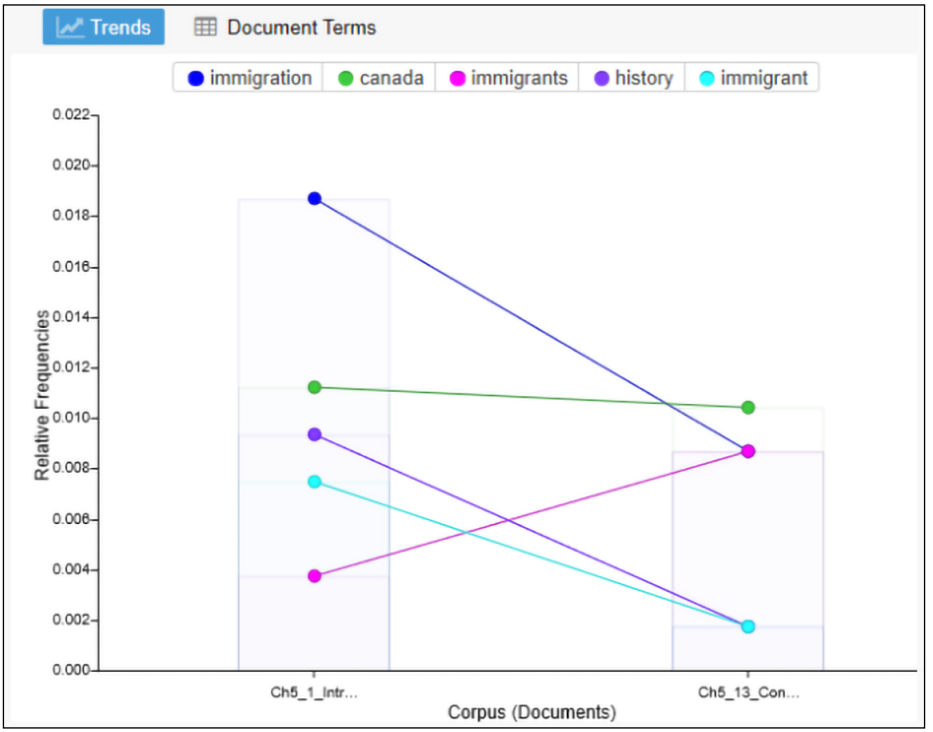
Function / Level	*1. Whole text (entire textbook and/ or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are key topics aggregated in the text?	To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? What do these data suggest in terms of subject-specific discourse?

The data used in the activity below have been retrieved with Voyant. The interactive interface of Voyant is embedded in the learning platform.

Look at the images which compare the topic organization in the introduction and the conclusion of chapter five, "Immigration and the immigrant experience", and carry out further research with Voyant. How are the main topics grouped in the introduction and the conclusion? How and to what extent are abstract and concrete terms used? What are the main differences and similarities between the two sections? What do they suggest in terms of topic organization and subject-specific discourse in the two genre-specific sections?
Discuss the data with your partner and then share your findings on Mural.



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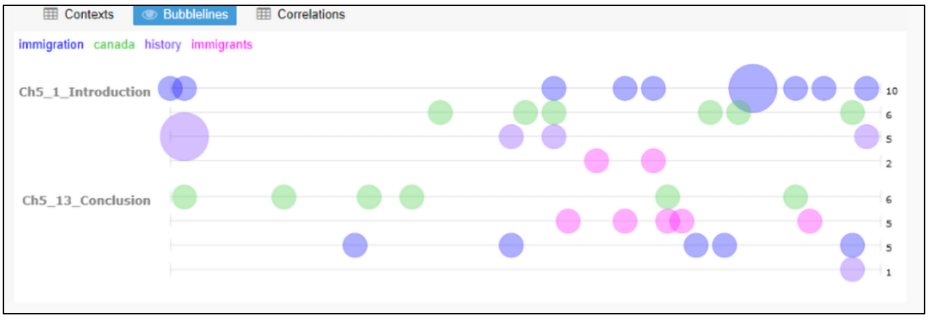

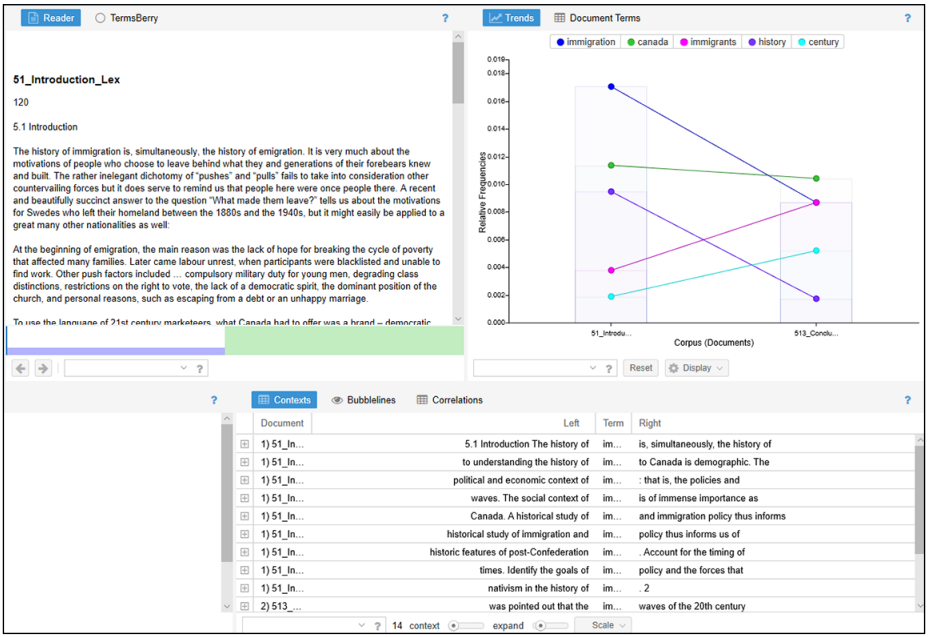

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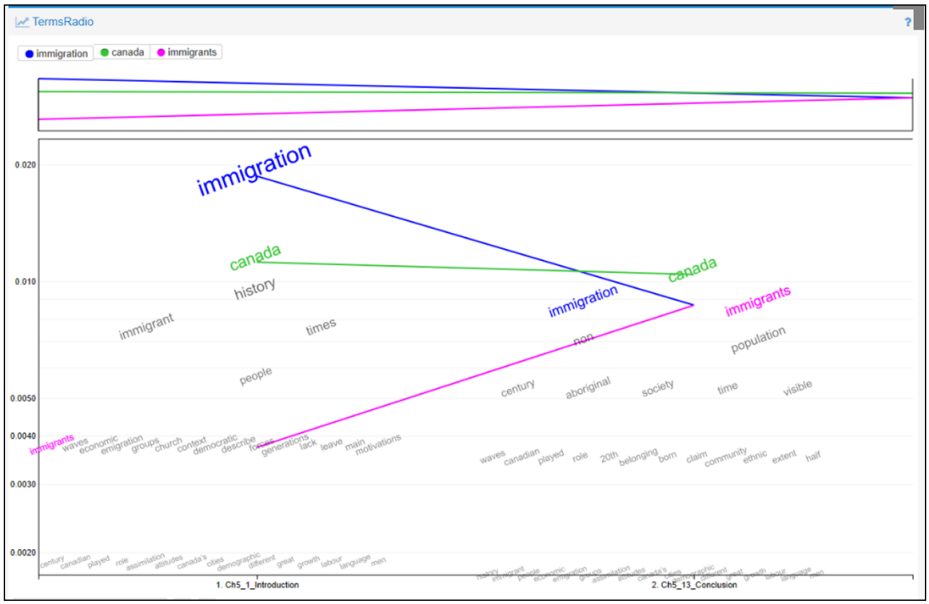
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How are keywords used to build disciplinary knowledge in a textbook chapter (in the introduction, the middle subchapters, and the conclusion)? How are keywords interconnected?	How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	

The data used in the activity below have been retrieved with Voyant.

Look at the image below. What lexical sets appear in the introduction and the conclusion of chapter five, "Immigration and the immigrant experience"? To what extent are terms interconnected? What are the main differences emerging? What do they suggest in terms of topic organization?
Discuss the data with your partner and then share your findings on Mural.



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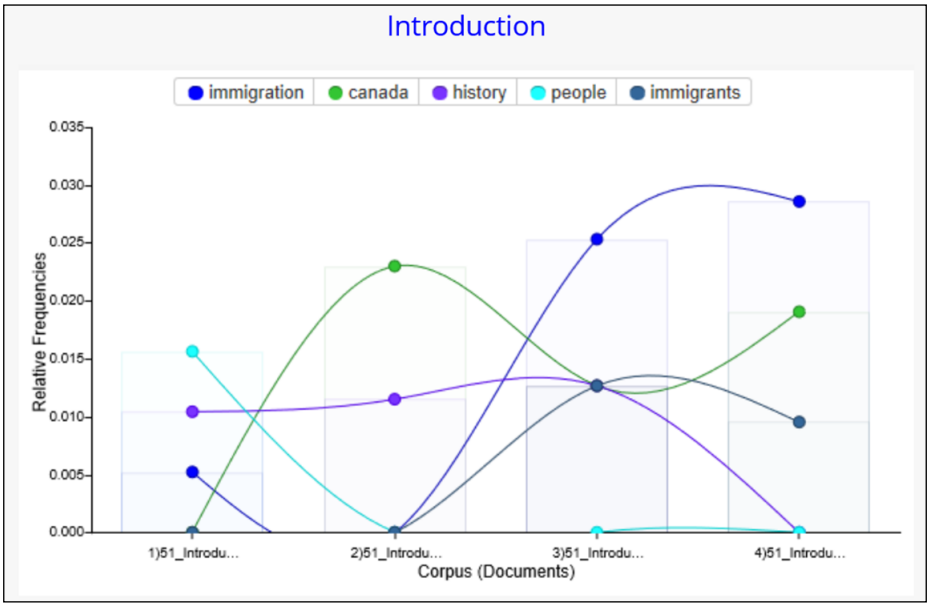
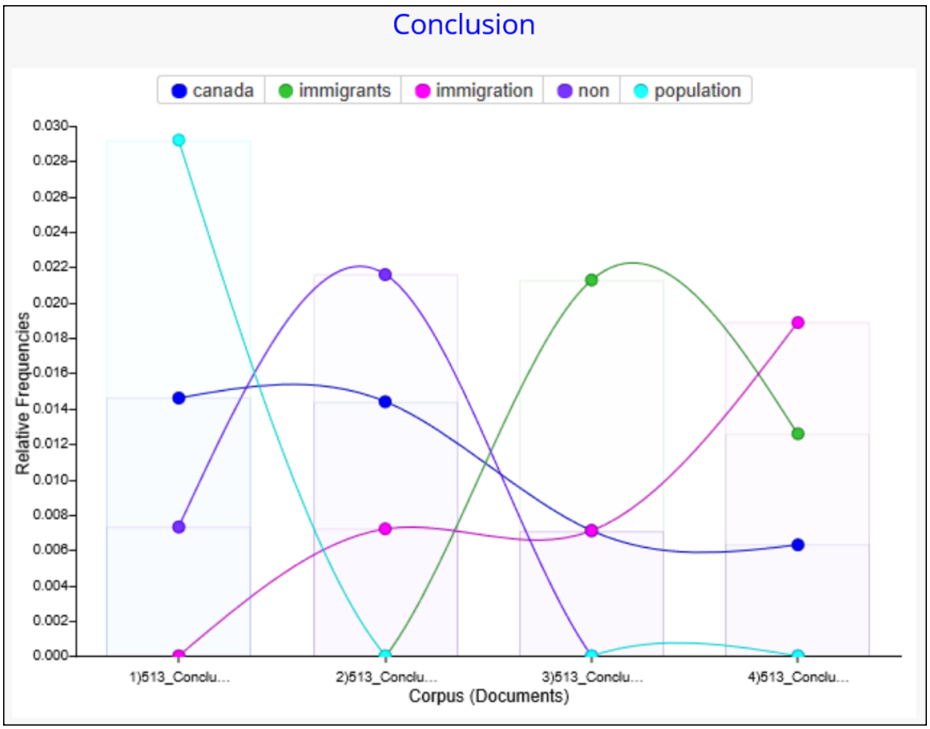
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How do the introduction, the middle subchapters, and the conclusion of a textbook chapter organize subject-specific knowledge (such as key topics)?	How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? And in particular within the various sections of the introduction and conclusion? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? What do these data suggest in terms of subject-specific discourse?

The data used in the activity below have been retrieved with Voyant (Trends) and Quirkos (the results of the qualitative text analysis have been provided through visualization).

How is the information organized in the four paragraphs of the introduction and in the four paragraphs of the conclusion? How are the main topics organized in the four paragraphs of both the introduction and the conclusion? What are the main differences and similarities? In particular, what differences can be detected (a) within the four paragraphs of the introduction and the four paragraphs of the conclusion and (b) between the introduction and the conclusion in general? What do the data suggest in terms of paragraph content organization and the perspective emerging in the two genre-specific sections?
Discuss the data with your partner and then share your findings on Mural.





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Introduction

Conclusion

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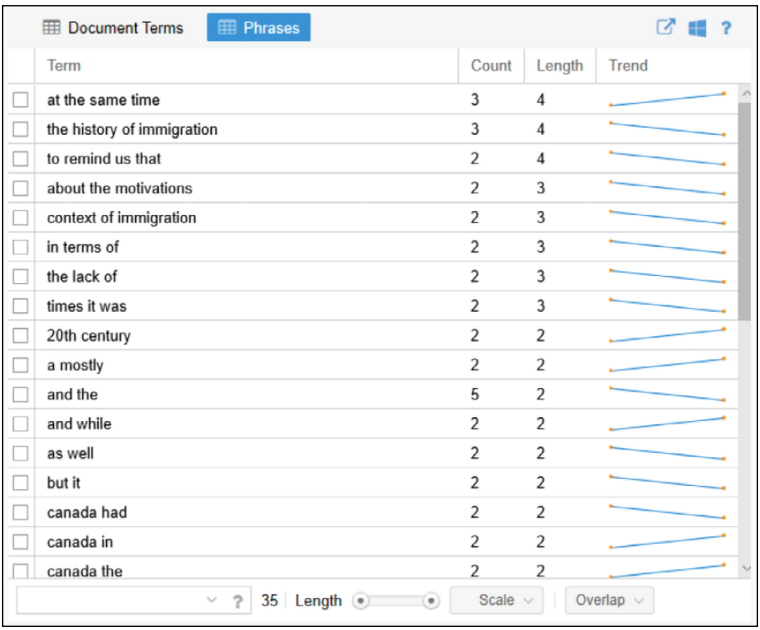
Function / Level	*1. Whole text (entire textbook and/ or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? Which article (a/the) is mostly used? Why? Where exactly in the text? In noun groups, what are the most common collocates of subject-specific vocabulary items?

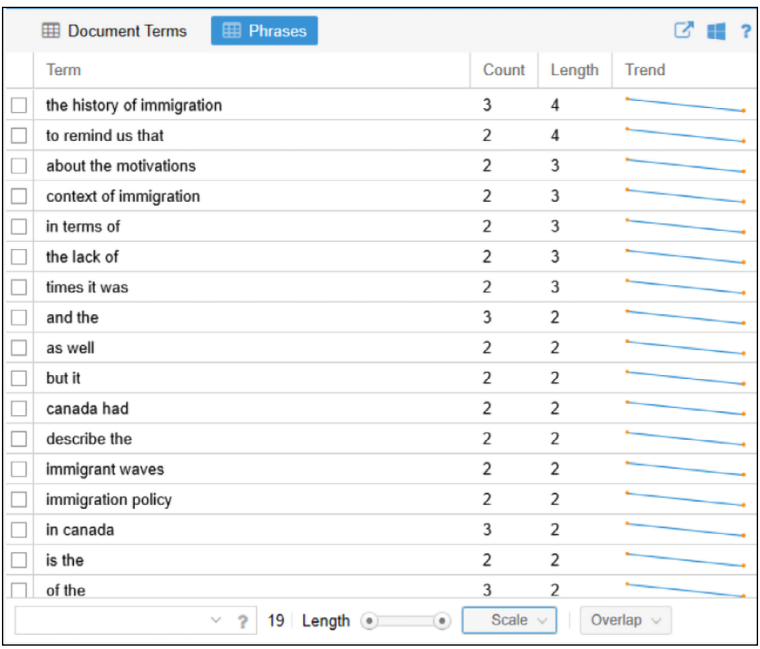
The data used in the activity below have been retrieved with Voyant. The interactive interface of Voyant is embedded in the learning platform.

Investigate the interactive interfaces to answer the following questions: What are the main differences between the introduction and the conclusion of chapter five, "Immigration and the immigrant experience", in terms of phrases? Which article (a/ the) is mostly used? What do the data retrieved suggest in terms of topic organization and evaluation in the two different genre-specific sections?
Discuss the data with your partner and then share your findings on Mural.

Introduction



Conclusion



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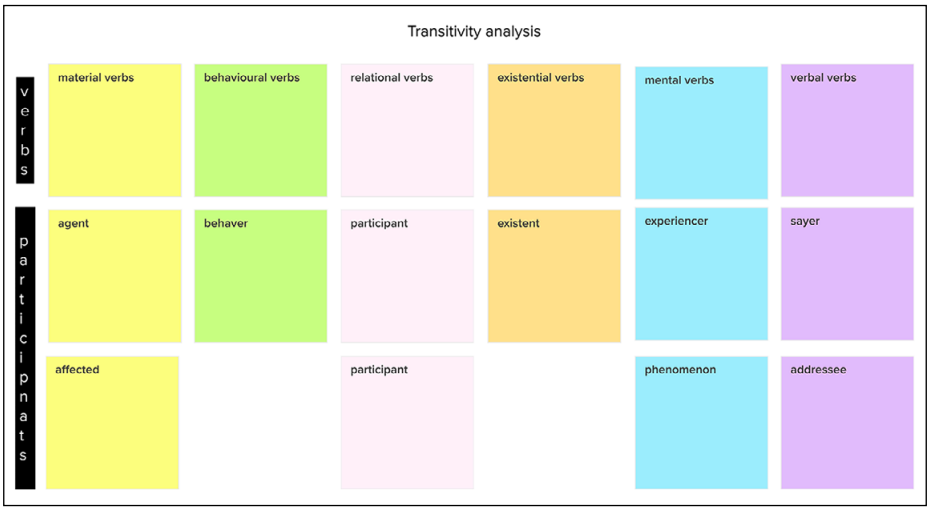
The contents of this matrix refer to the activities A, B, and C provided below:

Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? How is implicitness connected to nominalization? What do these data suggest in terms of subject-specific discourse? Transitivity analysis. What types of verbs are mostly used? What types of participants are mostly used? What kinds of prepositional phrases (circumstances) and adverbs (encoding time, place, manner, frequency, duration) are mostly used? What do these data suggest? How do these data convey the writer's worldview? To what extent do the types of verbs used convey the processes specific to the genre (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)?

Students will use the Mural provided below to share the findings of the three activities that follow.



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The data used in the activity below have been retrieved with Quirkos. For the purpose of the present work, only some examples of the different types of the data provided are made available here.

(A) Are the main participants abstract or concrete in the introduction (data provided) and in the conclusion of chapter five, "Immigration and the immigrant experience"? (You can retrieve the data on the conclusion using Voyant or highlighting the targeted elements in the platform; you can also use the demo version of Quirkos to carry out the research). Do the participants refer mainly to people, things or ideas? What are the main differences and similarities between the introduction and the conclusion? What do they suggest in relation to the way the author conveys the topics in the two genre-specific sections?
Discuss the data with your partner and then share your findings on Mural.

Introduction	*Conclusion*
Subject participants	*Subject participants*
" The history of immigration	
" they and generation fo their forebears	
" The rather inelegant dichotomy of "pushes" and "pulls"	
" people	
" A recent and beautifully succint answer to the question "What made them leave?"	
" the mai reason	
" labour unrest	
" partecipants	
" Other push factors	

Introduction	*Conclusion*
Object participants	*Object participants*
" the history of emigration	
" abovut the motivations of people	

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what	
other countervailing forces	
us	
people	
us	
their homeland	
a great many other nationalities	
the lack of hope for breaking the cycle of poverty	

The data used in the activity below have been retrieved with Quirkos. For the purpose of the present work, only some examples of the different types of the data provided are made available here.

(B) What are the main types of verbs used in the introduction (the data are provided) and in the conclusion of chapter five, "Immigration and the immigrant experience"? (You can retrieve the data on the conclusion using Voyant or highlighting the targeted elements in the platform; you can also use the demo version of Quirkos to carry out the research). What are the main differences and similarities? What do they suggest in relation to the way the author conveys the content in the two genre-specific sections? Discuss the data with your partner and then share your findings on Mural.

Introduction	*Conclusion*
Verbs	*Verbs*
is	
is	
were	
was	
had	
was	

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was	
had	
is	
were	
to leave behind	
built	
fails	
does serve	
left	
might easily be applied to	
affected	
came	
were blacklisted	
to find	
choose	
knew	
to remind	
has to be appreciated	
to remind	
might expect	
understood	

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Students will use the Mural provided below to share the findings of the activity that follows; the information used in the Mural is retrieved from Coffin, Donohue and North (2009: 301)[33].

The data used in the activity below have been retrieved with Qurkos.

(C) What are the main circumstances used in the introduction (data provided) and in the conclusion of chapter five, "Immigration and the immigrant experience"? (You can retrieve the data on the conclusion using Voyant or highlighting the targeted elements in the platform; you can also use the demo version of Quirkos to carry out the research). What are the main differences and similarities? What do they suggest in relation to how the author conveys the content and the main features of the subject-specific discourse in the two genre-specific sections?
Discuss the data with your partner and then share your findings on Mural.

33. See chapter 3.

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Introduction	*Conclusion*
Circumstances	*Circumstances*
” as well	
” in terms of ethnicity and places of origin	
” as well	
” to say the least	
” the ways in which	
” simultaneously	
” once	
” between the 1800s and the 1940s	
” Later	
” after 1867	
” At times	
” at other times	
” at others	
” still	
” here	
” there	
” across cities and farms and resource-extraction towns	
” in Canada	
” in Canada	

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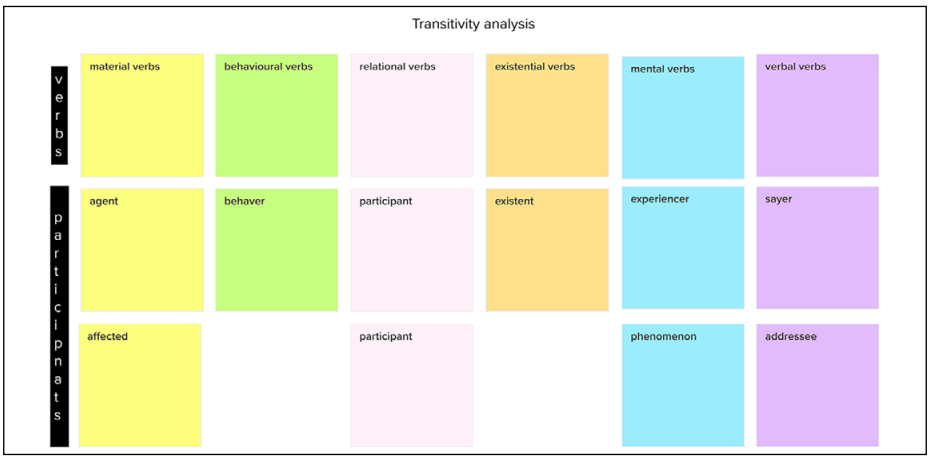
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	Transitivity analysis. What types of verbs are mostly used? What types of participants are mostly used? What do these data suggest? How do these data convey the writer's worldview? To what extent do the types of verbs used convey the processes specific to the genre (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)?

Students will use the Mural provided below to share the findings of the activity that follows.



The data used in the activity below have been retrieved with Textalytic. The interactive interface of Voyant is embedded in the learning platform.

Look at the data provided and carry out further research with Voyant. What types of verbs are the top occurring in the introduction and in the conclusion of chapter five, "Immigration and the immigrant experience"? What are the main differences, if any? What do these data suggest in terms of (a) how the author conveys the content and (b) the main features of the subject-specific discourse in the two genre-specific sections?

- To what extent do these types of verbs convey the processes specific to the subject-specific discourse of history (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)? What do these data suggest in relation to the way the content of the chapter is presented and the subject-specific discourse is used in a history textbook?

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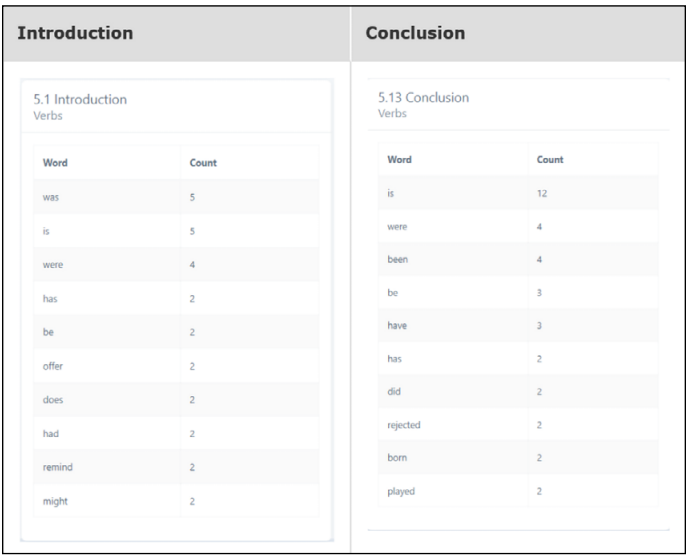
- What is the main role assigned to participants? To what extent do participants seem to be conceived as active or passive? What do these data suggest in relation to the way content is presented and the subject-specific discourse of history is used?

Discuss the data with your partner and then share your findings on Mural.



Introduction

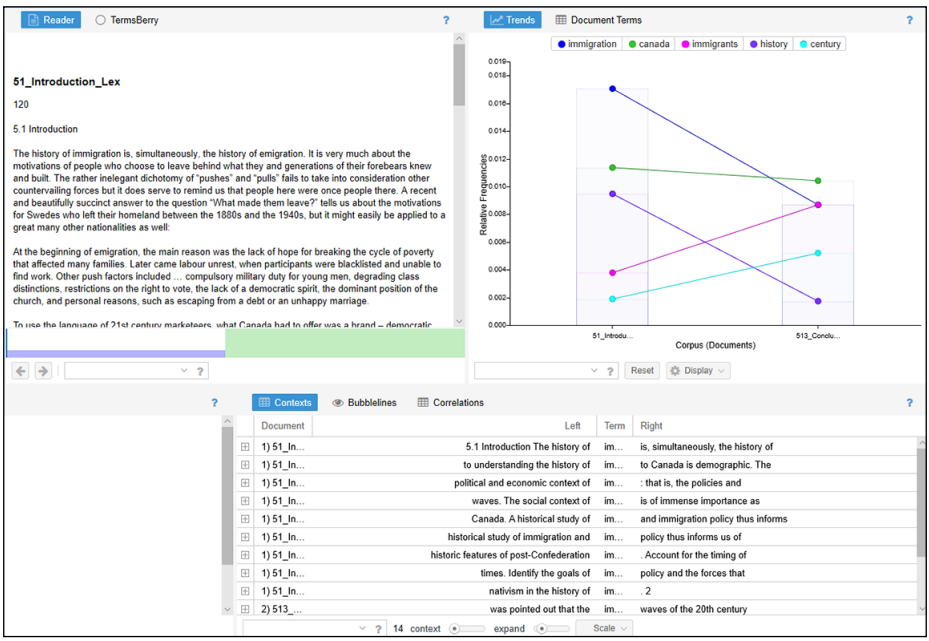
5.1 Introduction
Verbs

Word	Count
was	5
is	5
were	4
has	2
be	2
offer	2
does	2
had	2
remind	2
might	2

Conclusion

5.13 Conclusion
Verbs

Word	Count
is	12
were	4
been	4
be	3
have	3
has	2
did	2
rejected	2
born	2
played	2



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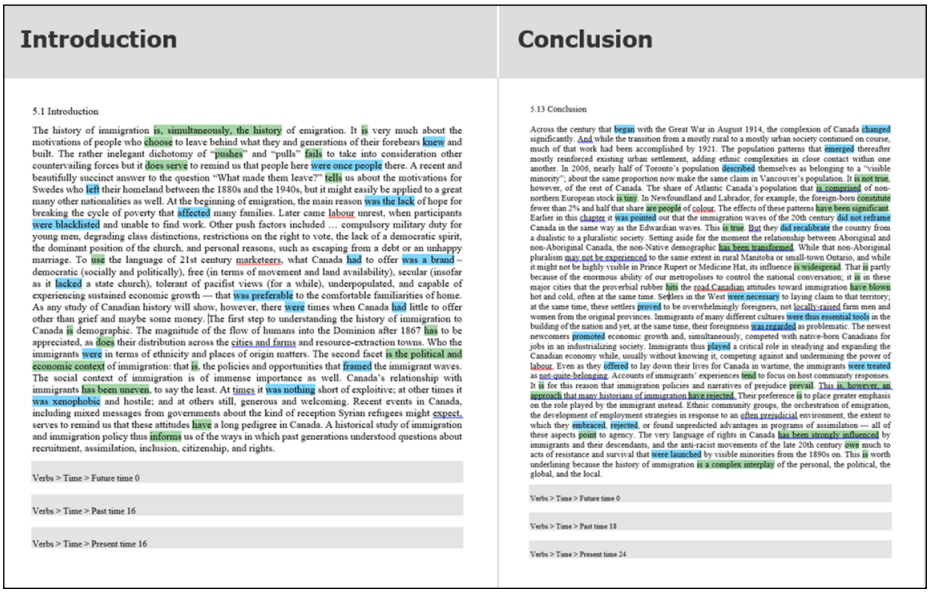
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter?	What kinds of verb times are mostly used? To what extent are the verb times relevant to the genre?

The data used in the activity below have been retrieved with FLAIR. This type of activity can also be applied to the various paragraphs of a chapter to analyze how verb time changes through the various phases.

What are the main verb times used in the introduction and the conclusion of chapter five "Immigration and the immigrant experience"? To what extent do the verb times convey the processes specific to the subject-specific discourse of history (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)? What do these data suggest in relation to the way the content of the chapter is presented and the subject-specific discourse is used in a history textbook?
Discuss the data with your partner and then share your findings on Mural.



 ISBN 9788835112129

Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter?	What kind of aspect is mostly used? To what extent are the aspects relevant to the genre?

The data used in the activity below have been retrieved with FLAIR. This type of activity can also be applied to the various paragraphs of a chapter to analyze how verb aspects change through the various phases.

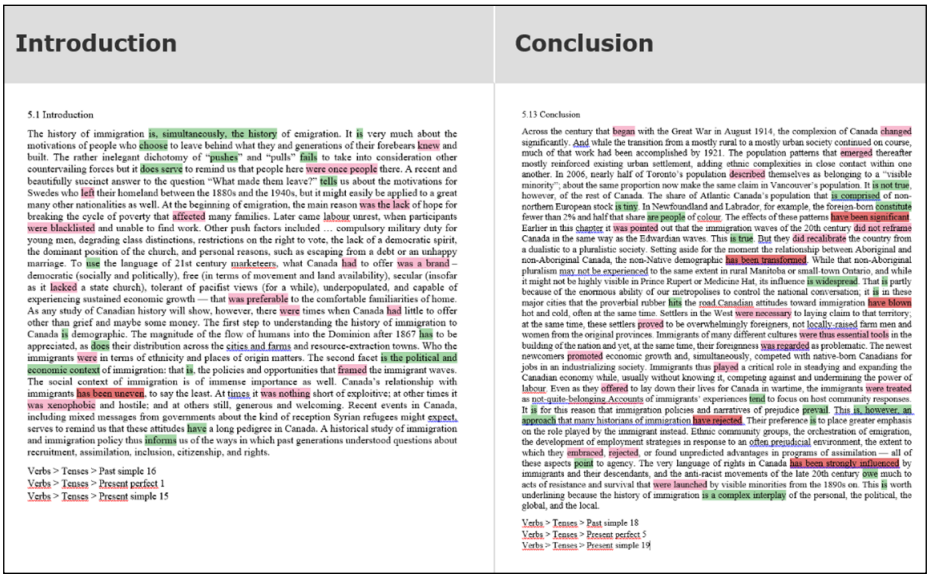
What are the main verb aspects used in the introduction and the conclusion of chapter five, "Immigration and the immigrant experience"? To what extent do these verb aspects convey the processes specific to the subject-specific discourse of history (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)? What do these data suggest in relation to the way the content of the chapter is presented in the two genre-specific sections and the subject-specific discourse used in a history textbook?
Discuss the data with your partner and then share your findings on Mural.

 ISBN 9788835112129

Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter?	What kinds of tenses are mostly used? To what extent are the tenses relevant to the genre?

The data used in the activity below have been retrieved with FLAIR. This type of activity can also be applied to the various paragraphs of a chapter to analyze how verb tenses change through the various phases.

What are the main verb tenses used in the introduction and the conclusion of chapter five, "Immigration and the immigrant experience"? To what extent do these verb tenses convey the processes specific to the subject-specific discourse of history (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)? What do these data suggest in relation to the way the content of the chapter is presented in the two genre-specific sections and the subject-specific discourse is used in a history textbook?
Discuss the data with your partner and then share your findings on Mural.



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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter?	To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? How is implicitness connected to nominalization? What do these data suggest in terms of subject-specific discourse? Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? In noun groups, what are the most common collocates of subject-specific vocabulary items?

Function / Level	*7. Whole text (entire textbook and/or a chapter of a textbook)*	*8. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*9. Sentence / clause level*
C. textual		How and where does information flow from more dense abstract terms to less dense concrete terms?	To what extent are nominalizations and abstract nouns used to package information? How and to what extent does grammatical metaphor (through nominalization) foster abstract language use?

The data used in the activity below have been retrieved with Voyant. Only parts of the lists are provided here while the entire lists are available for students to explore in the learning platform.

Look at the noun phrases. What are the main features of the noun phrases in the introduction and the conclusion? Are noun phrases mainly pre- or post-modified? What are the most commonly used words before nouns? What is the most commonly used preposition in noun phrases? And what is its function? Are noun phrases denser (that is,

more pre- and post-modified) in the introduction or in the conclusion? Do nouns refer mainly to abstract or concrete meanings? Do nouns refer mainly to people, things, or ideas? How is implicitness connected to the processes investigated? To what extent are noun phrases connected to grammatical metaphor? What do the data suggest in terms of subject-specific discourse in these genre-specific sections?
Discuss the data with your partner and then share your findings on Mural.

Introduction	Conclusion
The history of immigration	the complexion of Canada
the history of emigration	the transition from a mostly rural to a mostly urban society
the motivations of people	The population patterns
generations of their forebears	existing urban settlement
The rather inelegant dichotomy of "pushes" and "pulls"	ethnic complexities in close contact within one another
countervailing forces	nearly half of Toronto's population
A recent and beautifully succinct answer to the question "What made them leave?"	a "visible minority"
the motivations for Swedes	the same proportion
their homeland between the 1880s and the 1940s	the same claim in Vancouver's

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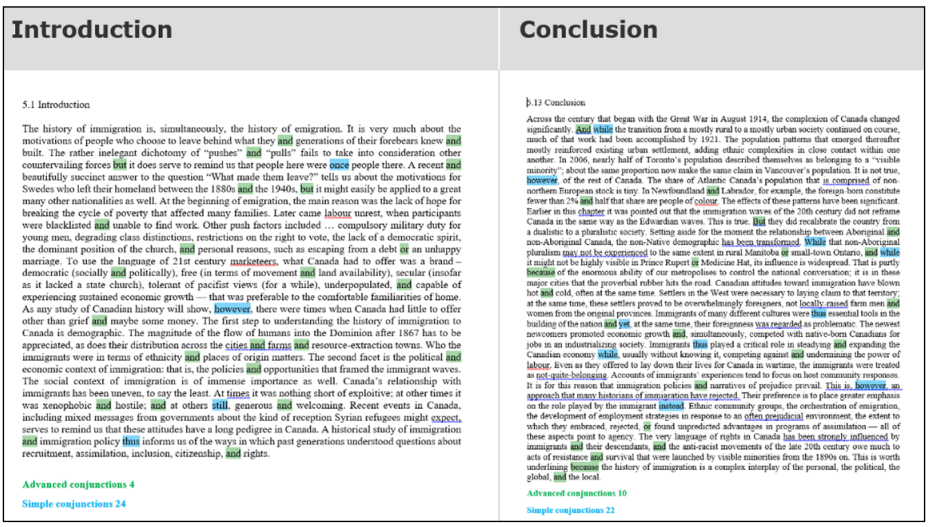
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		What are the most frequently occurring logical relations (such as cause, time, comparison, concession, consequence, addition etc.) in the introduction and conclusion of a book chapter? What do these data suggest in terms of how the topic is logically expanded in the subject-specific text? How are logical relations (such as cause, time, comparison, concession, consequence, addition) instrumental in fostering the development and expansion of ideas in the introduction and conclusion of a book chapter?	What conjunctions are mostly used? What do the data suggest?

The data used in the activity below have been retrieved with FLAIR and Textalytic.

Look at the images below. What kinds of conjunctions are mainly used in the introduction and in the conclusion of chapter five, "Immigration and the immigrant experience"? What do the data suggest in relation to the most commonly used types of clauses (simple, complex, independent, dependent)? What are the most frequently occurring logical relations (such as cause, time, comparison, concession, consequence, addition) in the introduction and the conclusion? What do these data suggest in terms of how the topic is logically expanded (such as cause/effect) in the two genre-specific sections?
Discuss the data with your partner and then share your findings on Mural.



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5.1 Introduction
Conjunctions

Word	Count
and	21
as	6
for	4
but	2
when	2
however	1
or	1
once	1
while	1
because	0

5.13 Conclusion
Conjunctions

Word	Count
and	16
as	5
for	5
while	4
or	3
because	2
however	2
but	1
yet	1
as long as	0

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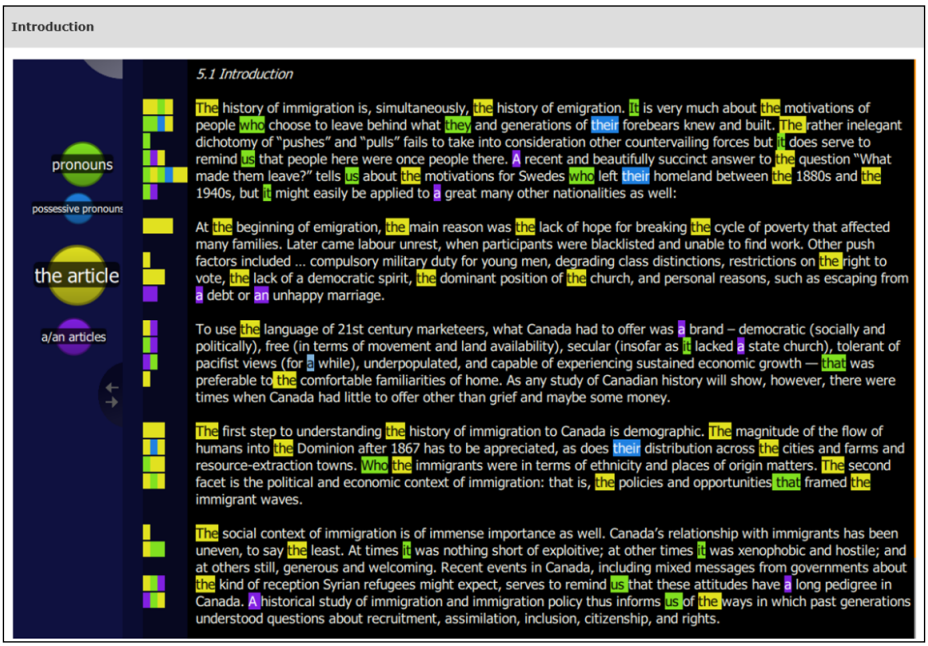
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter?	Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? Which article (a/the) is mostly used? Why? Where exactly in the text? In noun groups, what are the most common collocates of subject-specific vocabulary items?
Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal			To what extent are articles, pronouns, and abstract concepts used to trace people, things, and ideas?
Function / Level	*7. Whole text (entire textbook and/or a chapter of a textbook)*	*8. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*9. Sentence / clause level*
C. textual		How and where does information flow from more dense abstract terms to less dense concrete terms?	To what extent are nominalizations and abstract nouns used to package information? How and to what extent does grammatical metaphor (through nominalization) foster abstract language use? How often are articles and pronouns used to trace people, things, and ideas?

The data used in the activity below have been retrieved with Quirkos.

Look at the image provided. How is 'the' mostly used in general in the introduction of chapter five, "Immigration and the immigrant experience"? How is 'the' mostly used in noun phrases in particular? To what extent is 'the' used to foster nominalization processes? To what extent is 'the' connected to grammatical metaphor? To what extent are articles and pronouns used to keep track of people, things, and ideas?
Carry out the same kind of analysis on the conclusion of chapter five, "Immigration and

the immigrant experience", using Text Feature Analyser. Are there differences in the way articles and pronouns are used in the introduction and the conclusion? What do the data suggest in relation to the two genre-specific sections?
Discuss the data with your partner and then share your findings on Mural.



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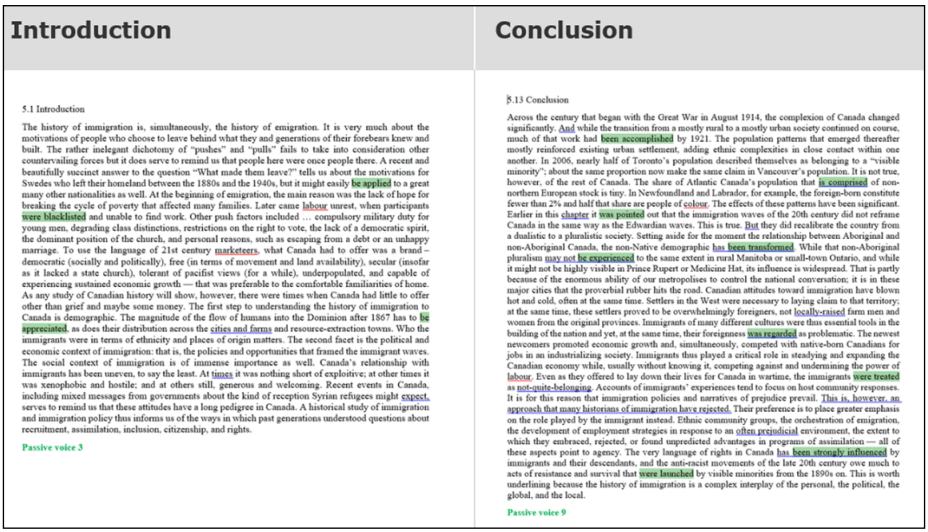
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter?	What kind of voice is mostly used? To what extent is the voice relevant to the genre?
Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal	To what extent is information presented as factual or tentative? To what extent is information provided in an authoritative and impersonal way? Does the writer try to make the reader agree with his/her stance/ claim/worldview? If so, how?	How does the writer position the reader in relation to the information presented? To what extent is the reader presented as aligned with the writer's stance?	To what extent does passive voice affect the focus of the message?

The data for the following activity have been retrieved with Textalytic. The same kind of activity may be applied to the various parts of a chapter, a textbook, and a scientific article.

To what extent and to what purpose is the passive voice used in the introduction and in the conclusion of chapter five, "Immigration and the immigrant experience"? Does the passive voice increase or decrease the sense of objectivity? What do the data suggest in relation to the way the author conveys, organizes, and evaluates the concepts presented? Discuss the data with your partner and then share your findings on Mural.



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3.3.3.3. Activities: group C

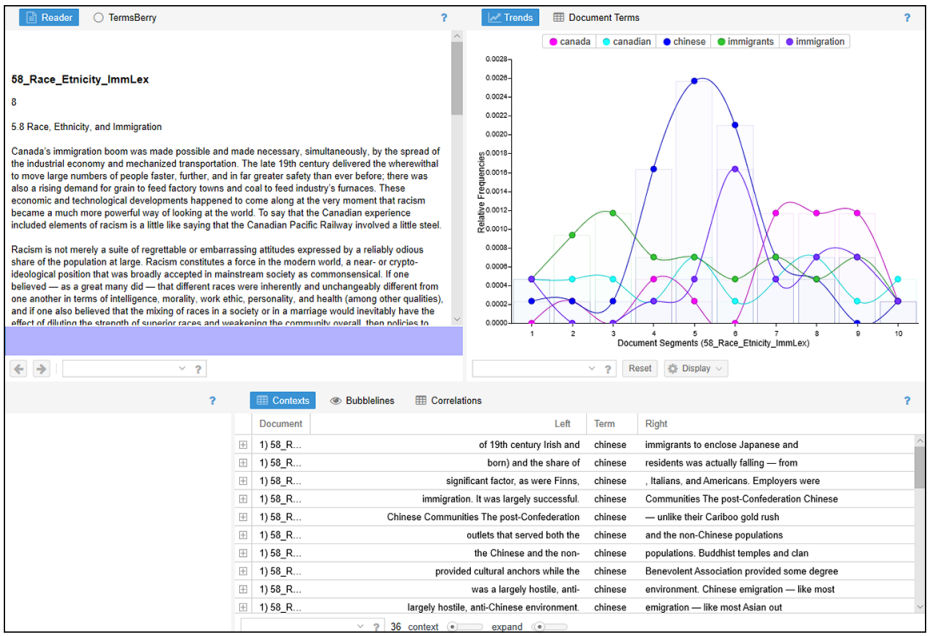
In this section, the activities focus on one of the subchapters of chapter five, "Immigration and the immigrant experience", of the open textbook "Canadian History: Post-Confederation" (Belshaw 2016), specifically subchapter 5.8, "Race, ethnicity, and immigration".

Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How are keywords used to build disciplinary knowledge in a textbook chapter (in the introduction, the subchapters, and the conclusion)? How are keywords interconnected?	How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	Which language elements are used more frequently: nouns or verbs? To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? How is implicitness connected to nominalization? What do these data suggest in terms of subject-specific discourse? Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? Which article (a/the) is mostly used? Why? Where exactly in the text? To what extent do the types of verbs used convey the processes specific to the genre (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)? In noun groups, what are the most common collocates of subject-specific vocabulary items?

Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal	To what extent is information presented as factual or tentative? To what extend is information provided in an authoritative and impersonal way? Does the writer try to make the reader agree with his/her stance/claims/ worldview? If so, how?		How and to what extent do writers hedge their positions with modal verbs and/or other words / expressions conveying the same meaning?

The interactive panel of Voyant is embedded in the learning platform. The instructions provided to the students are more general since they are expected to work more autonomously after accomplishing all the various activities assigned previously.

Read subchapter 5.8, "Race, ethnicity, and immigration", with Voyant. Search the concordances of some of the key terms (such as immigration, immigrants, Chinese, Jewish, Asia etc.) and investigate how the main topics are presented and evaluated by the author.
Discuss the data with your partner and then share your findings on Mural.



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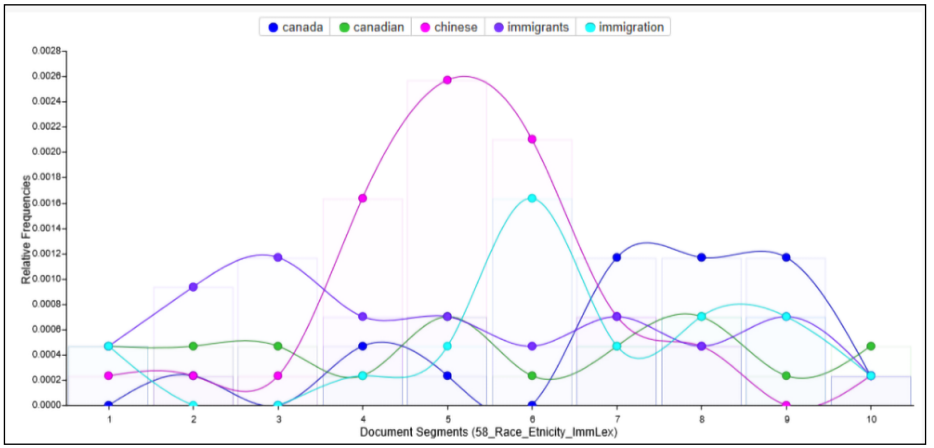
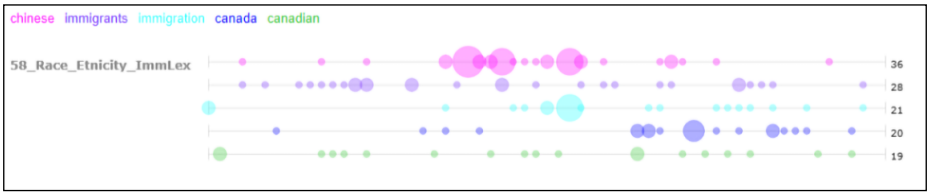
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How are keywords used to build disciplinary knowledge in a textbook chapter (in the introduction, the subchapters, and the conclusion)? How are keywords interconnected?	How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	

The data used in the activity below have been retrieved with Voyant.

Look at the images provided focusing on the subchapter 5.8, "Race, ethnicity, and immigration". How are the main topics organized and grouped throughout the chapter? What do the data suggest in relation to content organization?
Discuss the data with your partner and then share your findings on Mural.





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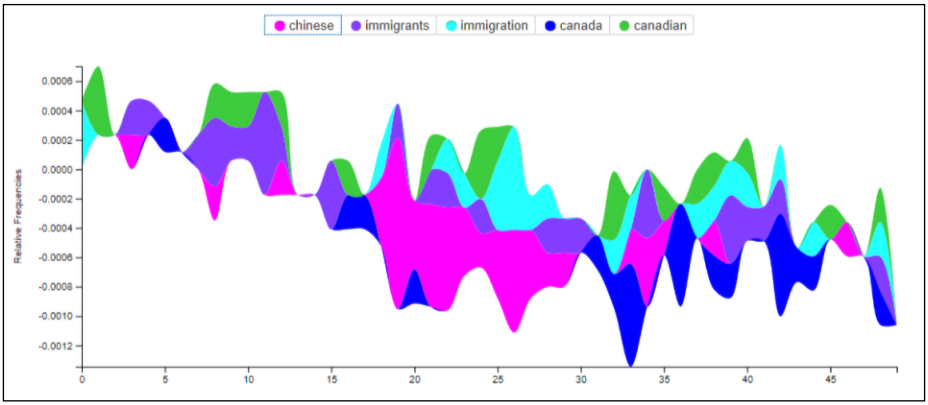

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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How are keywords used to build disciplinary knowledge in a textbook chapter (in the introduction, the middle subchapters, and the conclusion)? How are keywords interconnected?	How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	Which language elements are used more frequently: nouns or verbs? To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? How is implicitness connected to nominalization? What do these data suggest in terms of subject-specific discourse? Noun modification: • How are nouns mostly modified? Are they mainly pre- or post-modified? Are prepositional phrases or relative clauses more frequently used to modify nouns? What do these data suggest in terms of subject-specific discourse? • Do pre- and post-modifying elements mainly define, specify, or classify nouns? What do these data suggest in terms of subject-specific knowledge discourse? • Lexical density: Why are nouns modified through pre- and post-modification? Where are nouns more modified in the various sections? In noun groups, what are the most common collocates of subject-specific vocabulary items?

Function / Level	*7. Whole text (entire textbook and/or a chapter of a textbook)*	*8. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*9. Sentence / clause level*
C. textual		How and where does information flow from more dense abstract terms to less dense concrete terms?	To what extent are nominalizations and abstract nouns used to package information?

The data used in the following activity have been retrieved with Voyant. The interactive interfaces of Voyant are embedded in the learning platform.

Look at the images and investigate the interactive interfaces provided (you can also search other information you consider important to carry out the activity). How are topics organized and interrelated in "Race, ethnicity, and immigration"? How are words mainly pre- and post-modified? Where are noun phrases denser (that is, more pre- and post-modified), at the beginning, the center, or the end? Do nouns refer mainly

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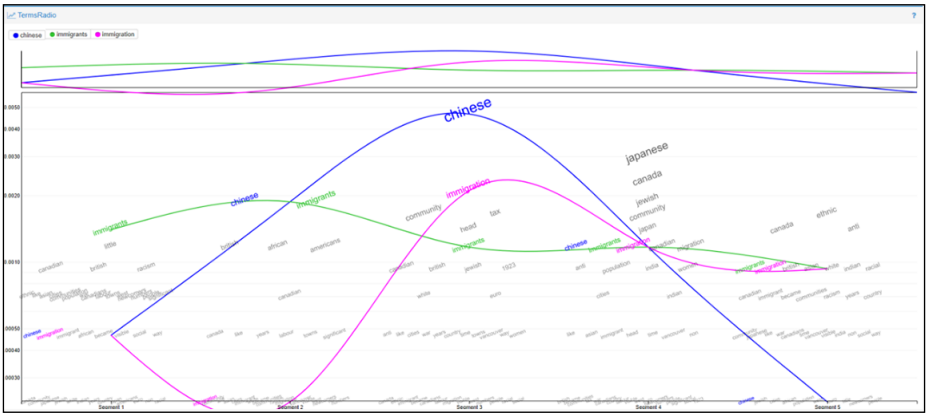
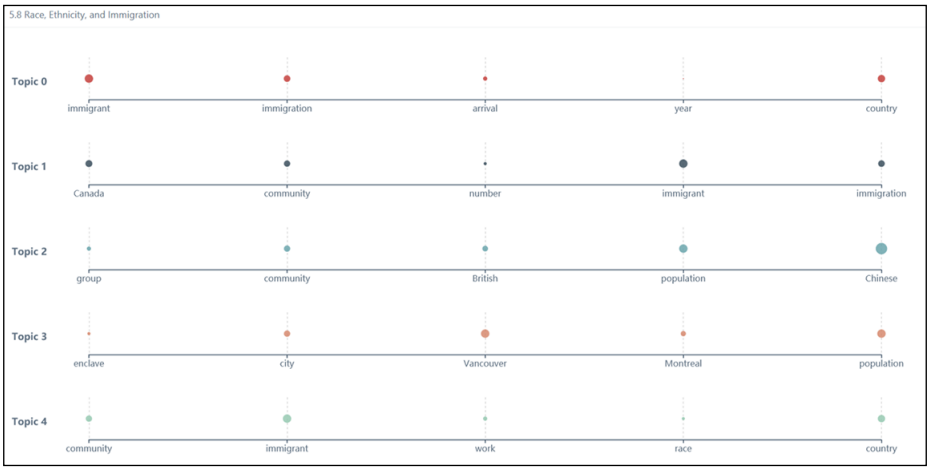
to abstract or concrete meanings? Do nouns refer mainly to people, things, or ideas? How is implicitness connected to the processes investigated? What do the data retrieved suggest in relation to the way the topics are presented and evaluated by the author? What do the data suggest in relation to subject-specific discourse?
Discuss the data with your partner and then share your findings on Mural.





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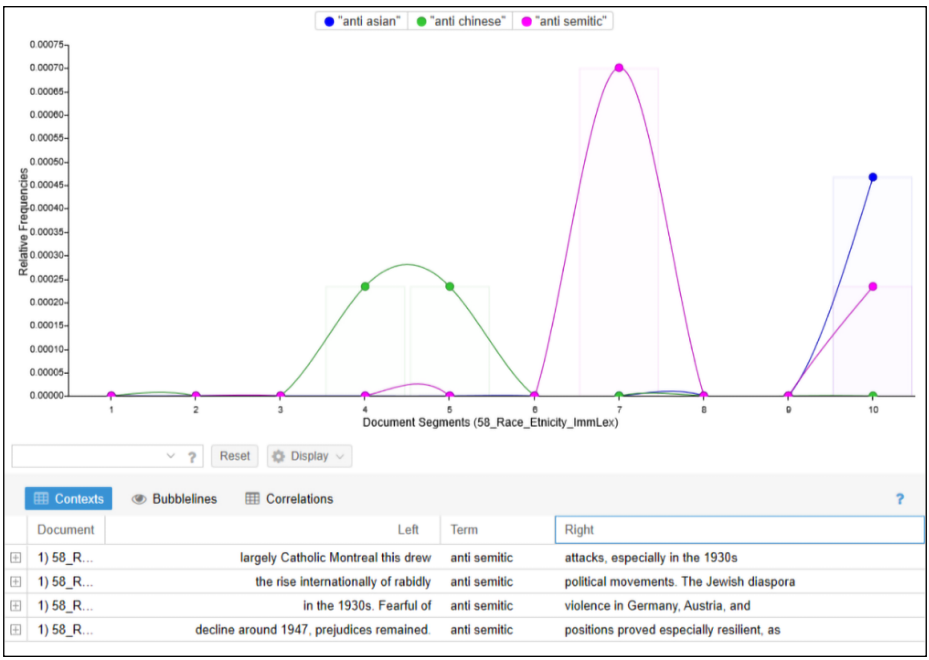
Phrases

Term	Count	Length
could be found in montreal and	2	6
in the years that followed	2	5
played a key role	2	4
production and sale of	2	4
the continuous voyage requirement	3	4
university of british columbia	2	4
when it came to	2	4
a fraction of	2	3
a gentlemen's agreement	2	3
a great many	2	3
as a whole	2	3
as much as	2	3
at the time	2	3
before the war	2	3
cities and towns	2	3
each of these	2	3
early 20th century	2	3
ethnic and racial	2	3
euro canadian women	2	3
for their part	2	3
if they can	2	3
immigrants who would	2	3
immigration it was	2	3
in british columbia	3	3
in the 1920s	2	3
in the 1930s	2	3
in the west	2	3
in this respect	2	3
it had been	2	3



Document	Left	Term	Right
1) 58_R...	largely Catholic Montreal this drew	anti semitic	attacks, especially in the 1930s
1) 58_R...	the rise internationally of rabidly	anti semitic	political movements. The Jewish diaspora
1) 58_R...	in the 1930s. Fearful of	anti semitic	violence in Germany, Austria, and
1) 58_R...	decline around 1947, prejudices remained.	anti semitic	positions proved especially resilient, as

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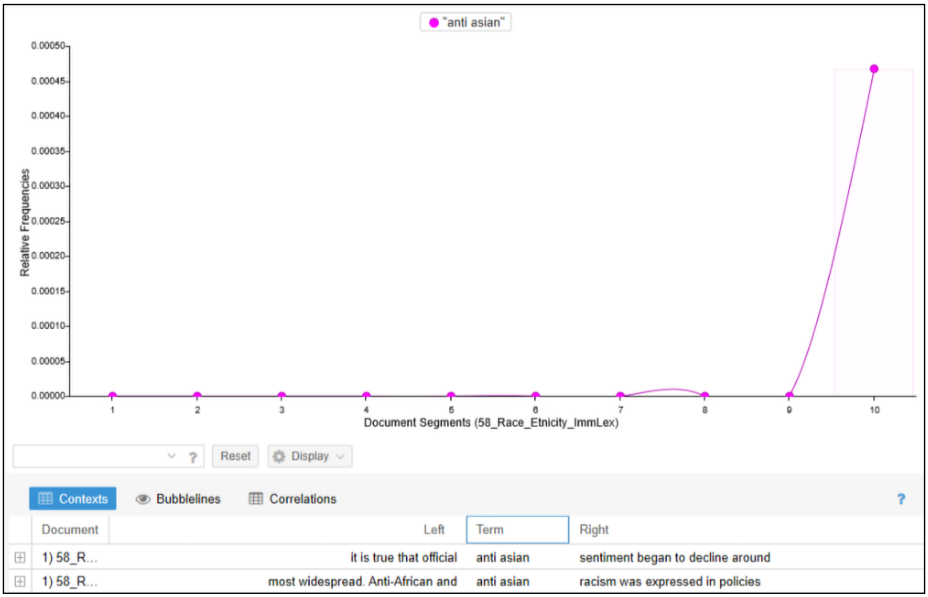

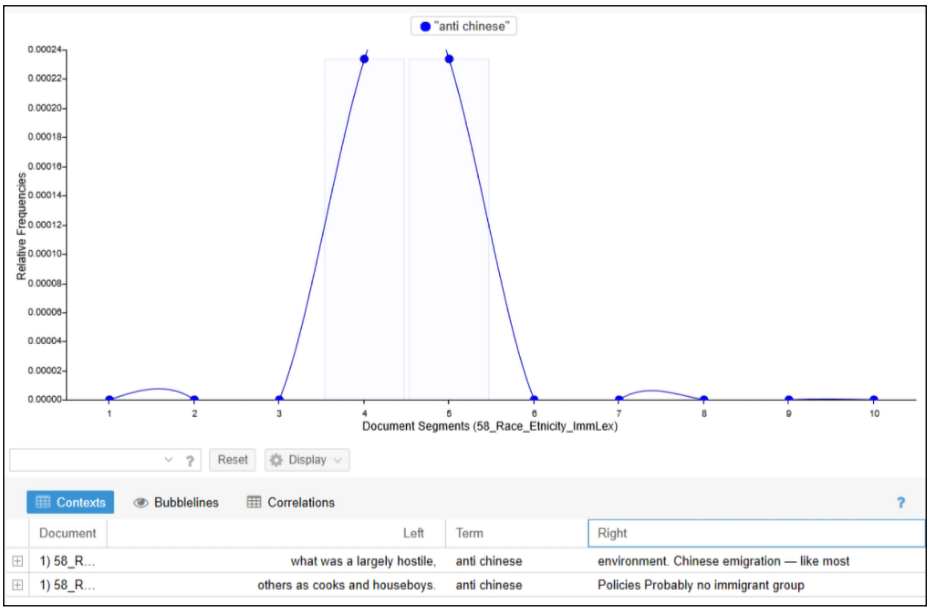

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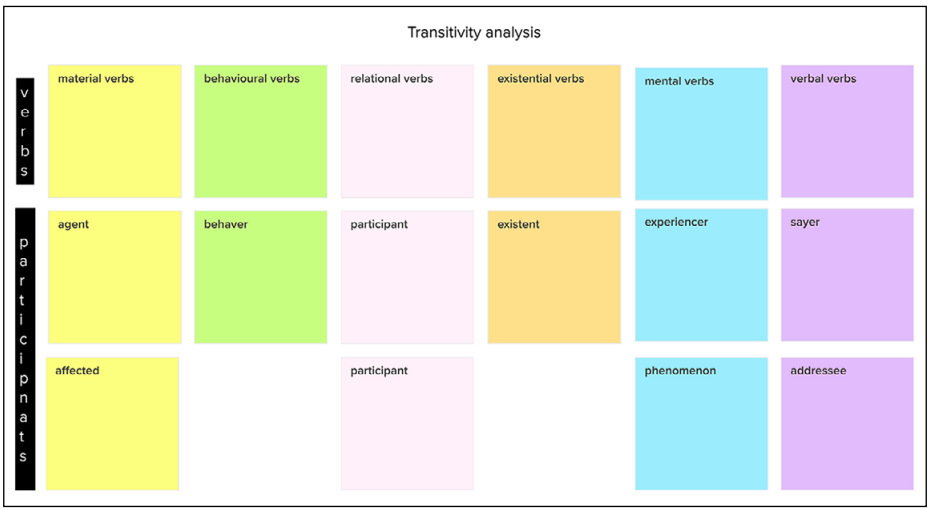
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	Transitivity analysis. What types of verbs are mostly used? What types of participants are mostly used? What kinds of prepositional phrases (circumstances) and adverbs (encoding time, place, manner, frequency, duration) are mostly used? What do these data suggest? How do these data convey the writer's worldview? To what extent do the types of verbs used convey the processes specific to the genre (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)?

Students will use the Mural provided below to share the findings of the activity that follows.



The data used in the activity below have been retrieved with Textalytic. The interactive interface of Voyant is embedded in the learning platform.

Look at the top occurring verbs in "Race, ethnicity, and immigration" provided and further investigate the text using Voyant:

- To what extent do these types of verbs convey the processes specific to the subject-specific discourse of history (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)? What do

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these data suggest in relation to the way the content of the chapter is presented and the subject-specific discourse is used in a history book chapter?

- Highlight the participants in the platform. What is the main role assigned to participants? To what extent do participants seem to be conceived as active or passive? What do these data suggest in relation to the way content is presented and the subject-specific discourse of history is used?

Discuss the data with your partner and then share your findings on Mural.

5.8 Race, Ethnicity, and Immigration
Verbs

Word	Count
was	64
were	62
is	19
be	13
had	10
could	9
became	8
would	8
did	7
found	7

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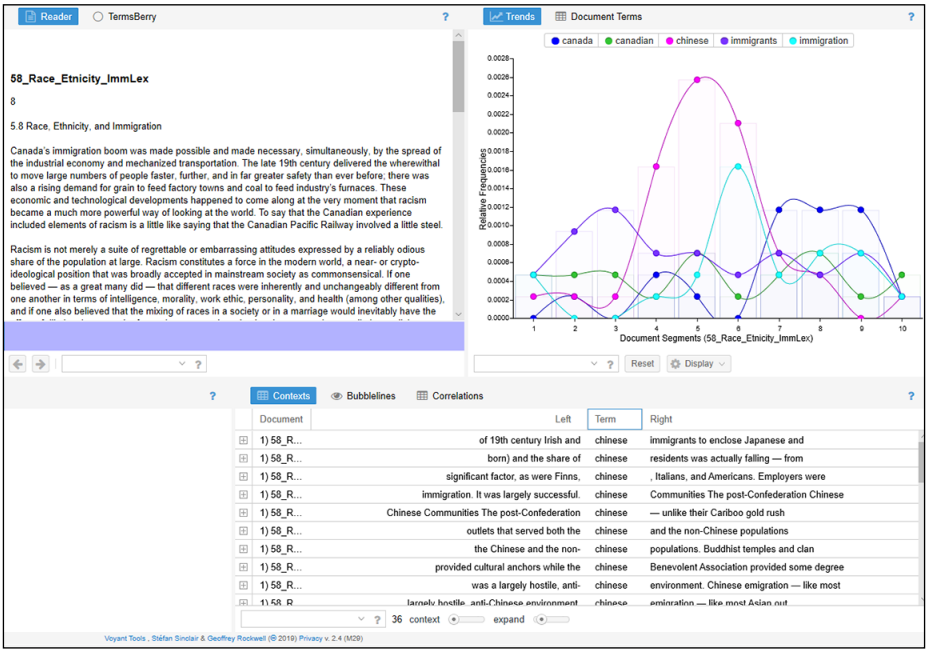

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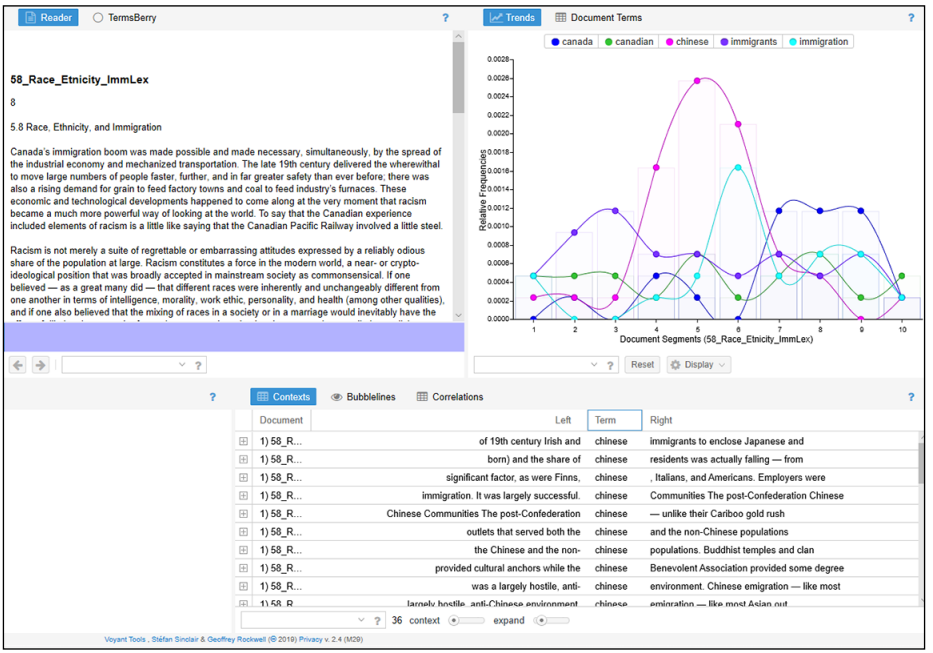
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		What are the most frequently occurring logical relations (such as cause, time, comparison, concession, consequence, addition etc.) in the text? What do these data suggest in terms of how the topic is logically expanded in the subject-specific text? How are logical relations (such as cause, time, comparison, concession, consequence, addition) instrumental in fostering the development and expansion of ideas in the text?	What conjunctions are mostly used? What do the data suggest?

The data used in the activity below have been retrieved with Textalytic. The interactive interface of Voyant is embedded in the learning platform.

Look at the top occurring conjunctions in "Race, Ethnicity, and Immigration". To carry out the activity, you can further investigate the text using Voyant and/or FLAIR. What do the top occurring conjunctions suggest in relation to the most commonly used types of clauses (simple, complex, independent, dependent)? What are the most frequently occurring logical relations (such as cause, time, comparison, concession, consequence, addition)? What do these data suggest in terms of how the topic is logically expanded (such as cause/effect) in the subject-specific text?
Discuss the data with your partner and then share your findings on Mural.



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5.8 Race, Ethnicity, and Immigration
Conjunctions

Word	Count
and	173
as	48
for	30
or	11
however	8
but	8
while	7
so	6
if	6
because	5

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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are key topics and topic patterns organized in the various middle sections of a textbook chapter?	Which language elements are used more frequently: nouns or verbs? What is the ratio? What does the ratio suggest in terms of disciplinary knowledge construction? To what extent are abstract and concrete nouns used? Which kind of noun (namely abstract or concrete) is used most frequently? Do abstract and concrete nouns refer to people, things, or ideas? What do these data suggest in terms of subject-specific discourse?

The data used in the activity below have been retrieved with Textalytic.

Look at the top occurring words, nouns, adjectives, and verbs in "Race, ethnicity, and immigration" and the comparison between the three categories. What do the data suggest in terms of (a) topic management and (b) subject-specific discourse? Discuss the data with your partner and then share your findings on Mural.

5.8 Race, Ethnicity, and Immigration
Words

Word	Count
Chinese	33
immigrants	26
Canada	20
community	17
British	16
immigration	15
Japanese	13
Jewish	12
Canadian	11
much	11

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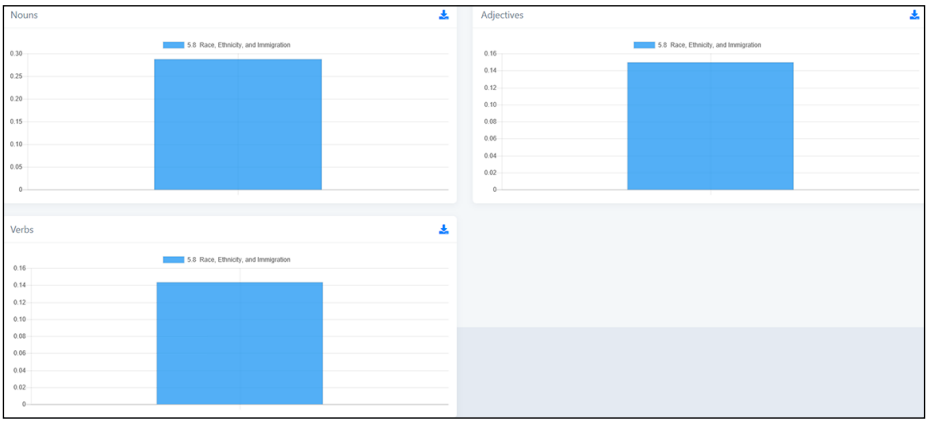
5.8 Race, Ethnicity, and Immigration
Nouns

Word	Count
immigrants	28
immigration	21
community	20
canada	20
cities	9
tax	8
years	8
head	8
vancouver	8
population	8

5.8 Race, Ethnicity, and Immigration
Adjectives

Word	Count
chinese	29
-	23
canadian	19
japanese	16
british	16
jewish	13
anti	11
other	11
many	11
white	9



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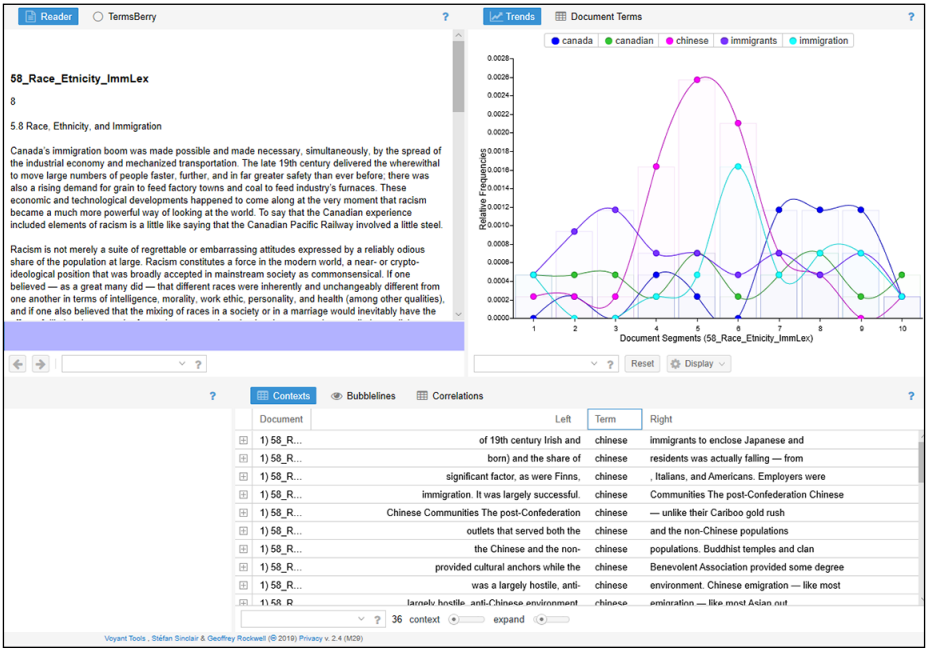
Function / Level	*7. Whole text (entire textbook and/or a chapter of a textbook)*	*8. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*9. Sentence / clause level*
C. textual		How and where does information flow from more dense abstract terms to less dense concrete terms?	How is the Theme used to control content organization? Is information mainly provided through an old-new structure? How often are marked Themes used? Why? How does the use of marked Themes affect a shift in the way the message is conveyed? Why? What category of marked Themes (such as time, place, manner etc.) is mostly used? To what purpose? How and to what extent does grammatical metaphor (through nominalization) foster abstract language use? To what extent is passive voice used? How does it affect the way information is conveyed? How is it related to the Theme?

The following activity has been devised with Voyant. The interactive interface of Voyant is embedded in the learning platform.

Using the interactive interface provided, analyze how theme and theme are used in "Race, Ethnicity, and Immigration".

- Is information mainly provided through an old-new sequence? How is the theme used to control content organization?
- How often are marked themes used? How does the use of marked themes affect a shift in the way the message is conveyed? What categories of marked themes (such as time, place, manner etc.) are mostly used? To what purpose?
- Is thematic progression mainly constant (that is, the theme of a previous sentence is used as the theme of a following one) or linear (that is, the theme of a sentence becomes the rheme of the following sentence)? How does thematic progression affect the shifts from less dense concrete expressions to more dense abstract expressions and/or vice versa? To what extent is grammatical metaphor connected to these processes? What do these data suggest in terms of subject-specific discourse and the way the author organizes the information flow?

Discuss the data with your partner and then share your findings on Mural.



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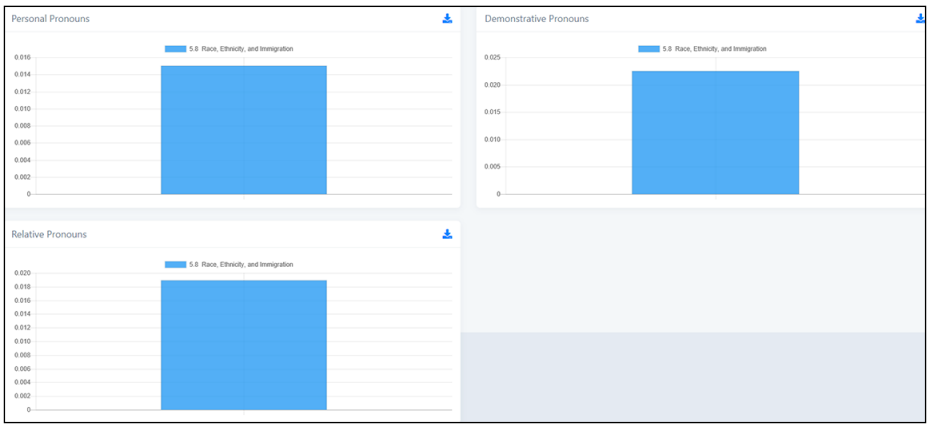
Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal			To what extent are pronouns used? What pronouns are mainly used? Why? What do these data suggest in terms of subject-specific discourse?

The data used in the activity below have been retrieved with Textalytic.

Look at the data on personal, demonstrative, and relative pronouns in "Race, ethnicity, and immigration" provided below. How are these elements used in the subject-specific discourse investigated? What do the data suggest?
Discuss the data with your partner and then share your findings on Mural.



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Function / Level	*4. Whole text (entire textbook and/ or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal	Does the writer try to make the reader agree with his/her stance/ claims/worldview? If so, how?	How does the writer position the reader in relation to the information presented? To what extent is the reader presented as aligned with the writer's stance?	What personal pronouns do writers use? When do they use them? How do the pronouns used position the writer and the reader? To what extent are pronouns used? What pronouns are mainly used? Why? What do these data suggest in terms of subject-specific discourse? To what extent are articles, pronouns, and abstract concepts used to trace people, things, and ideas?

The data used in the activity below have been retrieved with Text Feature Analyzer. Only some examples of the data are provided here. The interactive interface of Voyant is embedded in the learning platform.

Look at the personal pronouns used in "Race, ethnicity, and immigration" and investigate the text further using Voyant. Are pronouns used to track people, things, or ideas? What do they suggest in relation to the way the author conveys the content? How does the author use pronouns to engage with the reader and the content?
Discuss the data with your partner and then share your findings on Mural.

1st person pronouns (subject)	=>	2
3rd person pronouns (subject)	=>	27
3rd person pronouns (object)	=>	7
3rd person pronouns (neutral)	=>	18
3rd person pronouns (possessive)	=>	25

White Anglo-Celtic Protestants dominated Ontario and the Eastern Townships of Quebec; while they were the clear majority, a significant Franco-Catholic population and concentrations of African-Canadians lived in the Maritimes.
That is, they were all part of the emergent industrial world that globalized a particular kind of labour market.
While cities like Winnipeg, Regina, Calgary, and Edmonton announced their British loyalty as loudly as any other centre, they were also sites of acculturation and assimilation of non-British newcomers and the newcomers' parallel struggle to retain pre-emigration cultural elements.
Some — and this was true particularly of Slavic and Scandinavian immigrants — acquired a poor reputation with the railway companies precisely because they had achieved some success in farming.
They made their farms a priority and framed their wage labour around the rhythms of planting and harvesting.
The Western Federation of Miners complained in the Sandon Paystreak newspaper that they were being pushed to the brink in the Kootenays by employers who were, …importing cheap foreigners from the Minnesota iron ranges to displace union miners… [some employers] have it figured out that if they can run in Dagoes [Italians] at the rate of about two a day they will soon have the union locoed … if [they] can get emf [sic] of them in, wages can be cut to a whisper and Rossland mapped as a colony of Italy.
There were, too, nativist responses from immigrants (largely British or American) and the grown children of immigrants (providing they were White) that worked to (a) denigrate the outsider, and (b) advance the claims of the nativist to inclusion in the mainstream.
Thereafter, some found work in the Vancouver Island coal mines but principally they settled in the cities and towns, especially along the CPR mainline.
These enclaves varied tremendously in size but they hosted a familiar variety of services and institutions.
Although Chinese market farms in suburban areas became an early and important source of food in West Coast Canadian cities, few Chinese were able to become farmers nor were they able to escape the urban neighbourhoods into which they were cast.
Sought out as cheap contract labour, they were recruited to meet finite economic and infrastructural goals.
While some Chinese arrivals saw themselves as sojourners — temporary immigrants who would return to their country of origin once they'd amassed some money — many more were in for the long haul.
The Lib-Lab Member of the BC legislature, Ralph Smith, supported this idea and one local newspaper chided him that he was worried that "his gallant wife should have to roast her comely face over the kitchen fire every day because the Chinese Head Tax makes it impossible for him to get a Chinese cook." Working Mothers and the Child Care Dilemma: A History of British Columbia's Social Policy (Vancouver: University of British Columbia Press, 2015), 30.
They were forbidden, in Vancouver, from purchasing homes and opening stores outside of a few blocks of the city core.
Like members of some other ethnic/racial/visible groups, they were also forbidden for years from attending post-secondary institutions and specifically from pursuing degrees through the University of British Columbia School of Pharmacy, a restriction that echoed Sinophobic associations between the Chinese community and drug trafficking.
Enclaves — ghettos without walls — could be found in Montreal and Winnipeg's North End in particular, although they were less visible in the other major cities.
Like the Chinese, they participated in the coal mining frontier on Vancouver Island and were drawn to the cities.
The phenomenon of "picture brides" developed from there and in the decades that followed, significant numbers of women relocated from Meiji Japan to Canada where they met, for the first time, their husbands.
Immigrants would be allowed from India (or Japan) into Canada if they could demonstrate that their vessel had travelled directly to a Canadian port without putting into another foreign harbour along the way.
Some of the parties involved were anti-British and sought Indian independence; the British, for their part, were anxious about divisive Indian politics just as tensions with Germany were becoming greater; Singh — in concert with Indo-Canadians — wanted to challenge the continuous voyage requirement just as much as he wanted the immigrants to succeed in reaching Canada; the British were as interested in putting down anti-colonial upstarts as they were in

The Western Federation of Miners complained in the Sandon Paystreak newspaper that they were being pushed to the brink in the Kootenays by employers who were, …importing cheap foreigners from the Minnesota iron ranges to displace union miners… [some employers] have it figured out that if they can run in Dagoes [Italians] at the rate of about two a day they will soon have the union locoed … if [they] can get emf [sic] of them in, wages can be cut to a whisper and Rossland mapped as a colony of Italy.
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Public opinion among the non-Asian population was against them, as was demonstrated in a 1907 window-smashing and head-bashing riot led by the Asiatic Exclusion League (in which organized labour played a key role) that swept through the Chinese and Japanese quarters.
The picture brides endured lives with men who were hitherto strangers, many of them living in small fishing or other resource-extraction communities on the northwest coast; despite powerful Meiji traditions of female submissiveness, some women sought their own path and abandoned prescribed gender roles.
Once these notions were affixed to immigrant groups, the logic of barring them from medical schools and positions of responsibility became all but unassailable.

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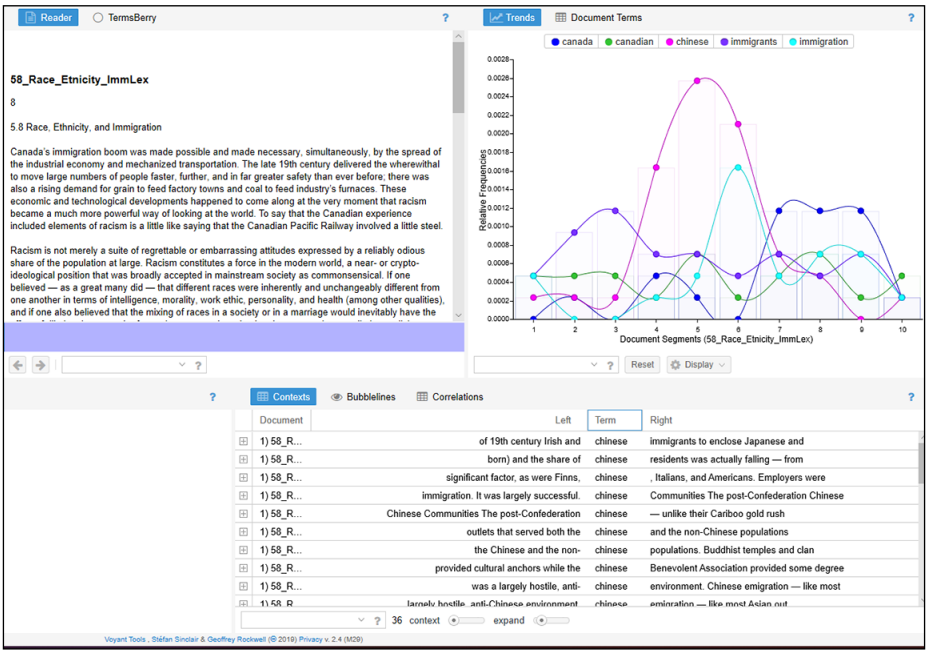
Cultural Demography Through to 1914 the ethnic shape of the older parts of the country was, with a few pockets of exceptions, much as it had been 50 years earlier.
Halifax was another entry point, and it acquired diversity in much the same way.
The Western Federation of Miners complained in the Sandon Paystreak newspaper that they were being pushed to the brink in the Kootenays by employers who were, …importing cheap foreigners from the Minnesota iron ranges to displace union miners… [some employers] have it figured out that if they can run in Dagoes [Italians] at the rate of about two a day they will soon have the union locoed … if [they] can get enuf [sic] of them in, wages can be cut to a whisper and Rossland mapped as a colony of Italy.
Living conditions, however, were often very poor. The elements that defined the Chinese experience across Canada and distinguished it from that of European settlers included wages that were a fraction of what was earned by adult White males, overcrowded living conditions in Chinatowns, and the almost total absence of family comforts.
Some 81,000 people found the wherewithal to pay this fee before it was abolished, even though it rose from $50 in 1885 to $500 in 1903.
The Lib-Lab Member of the BC legislature, Ralph Smith, supported this idea and one local newspaper chided him that he was worried that "his gallant wife should have to roast her comely face over the kitchen fire every day because the Chinese Head Tax makes it impossible for him to get a Chinese cook." Working Mothers and the Child Care Dilemma: A History of British Columbia's Social Policy (Vancouver: University of British Columbia Press, 2015), 30.
The Black Candle (as it appeared in book form) was one of several diatribes against the Chinese community, one that catalyzed a revision of immigration legislation.
What immigration occurred between 1923-1947 was illegal and much of it involved reuniting spouses and family members.
A new spiritual and educational hub appeared on the south side, but it was never an enclave in the truest sense.
Like the Chinese, Japanese immigrants faced discrimination when it came to immigrant recruitment and host community hospitality.
It capped the number of men who could travel to Canada, but it left open the possibility of female migration across the Pacific by not restricting the emigration of wives.
It also informed the Indian community's strategies and tactics when it came time to fight for rights or survival.
The Komagata Maru incident is complex in that it draws together many different threads.
Even so, it is in some respects a challenge to understand.
There were, in 1911, fewer than 3,000 Indians in Canada and that number was roughly half of what it had been only five years earlier.
Crowded housing and poor water and sewage — widely recognized as causal factors when it came to infectious diseases — were disregarded when dealing with the immigrant, working poor, and non-White races.
While it is true that official anti-Asian sentiment began to decline around 1947, prejudices remained.

While cities like Winnipeg, Regina, Calgary, and Edmonton announced their British loyalty as loudly as any other centre, they were also sites of acculturation and assimilation of non-British newcomers and the newcomers' parallel struggle to retain pre-emigration cultural elements.
Unlike virtually all other immigrant groups, Asians were repeatedly described as unassimilable; barriers to their integration thus created a self-fulfilling prophecy of Asian separateness.
Anglo-Canadian homesteaders, too, demonstrated their own biases in the hiring of seasonal workers and tended to favour Canadian, British, American, and even German labour over Eastern Europeans.
Some Prairie newcomers were thus frustrated in their efforts to earn enough money to meet the costs of setting up a homestead.
They made their farms a priority and framed their wage labour around the rhythms of planting and harvesting.
Employers were happy to have minority immigrants, who would work for less than the Anglo-Canadian and British miners, sometimes for a fraction of their pay.
Reporting on a devastating local fire in 1908, the Fernie Free Press assigned to the diverse community that was battling the blaze the usual (and purportedly immutable) stereotypes: measured against "the serene indifference to danger of the Anglo-Saxons" there was the Italian, "with his excitable nature and glib tongue, the Oriental, with his inherent dread of danger, and his equally great regard for personal safety, [and] the stoic Slavonian [sic]…." The pulpit also played a role in this as was seen very clearly in the rise of eugenics (see Section 7.8).
Their numbers were not significant until about 1907, at which time conditions in the southern and central states deteriorated and word of opportunities on the Canadian prairies reached African-Americans struggling under Jim Crow Laws.
Chinese Communities The post-Confederation Chinese — unlike their Cariboo gold rush predecessors — were largely drafted in to build the CPR between tidewater and the Rocky Mountains.
Populated overwhelmingly by males (single or, if married, living there without their wives who were still in China), Chinatowns provided immigrants with employment in restaurants, laundries, and grocery outlets that served both the Chinese and the non-Chinese populations.
While some Chinese arrivals saw themselves as sojourners — temporary immigrants who would return to their country of origin once they'd amassed some money — many more were in for the long haul.
The Lib-Lab Member of the BC legislature, Ralph Smith, supported this idea and one local newspaper chided him that he was worried that "his gallant wife should have to roast her comely face over the kitchen fire every day because the Chinese Head Tax makes it impossible for him to get a Chinese cook." Working Mothers and the Child Care Dilemma: A History of British Columbia's Social Policy (Vancouver: University of British Columbia Press, 2015), 30.
By this time, however, there was growing fear among the White community of the opium trade and allegations that young Euro-Canadian women were being lured into the sex trade, what was called at the time "White slavery." Emily Murphy — a leading figure in first wave feminism, the suffrage movement, and counted among the Famous Five — wrote a series of highly popular pieces on the drug trade and its connections with Chinatown.
The phenomenon of "picture brides" developed from there and in the decades that followed, significant numbers of women relocated from Meiji Japan to Canada where they met, for the first time, their husbands.
The picture brides endured lives with men who were hitherto strangers, many of them living in small fishing or other resource-extraction communities on the northwest coast; despite powerful Meiji traditions of female submissiveness, some women sought their own path and abandoned prescribed gender roles.
Immigrants would be allowed from India (or Japan) into Canada if they could demonstrate that their vessel had travelled directly to a Canadian port without putting into another foreign harbour along the way.
The passengers seized control of the ship from its Japanese crew and waited as lawyers for the Crown argued that the immigrants had departed from Hong Kong, not India, and so were in breach of the continuous voyage requirement.
Some of the parties involved were anti-British and sought Indian independence; the British, for their part, were anxious about divisive Indian politics just as tensions with Germany were becoming greater; Singh — in concert with Indo-Canadians — wanted to challenge the continuous voyage requirement just as much as he wanted the immigrants to succeed in reaching Canada; the British were as interested in putting down anti-colonial upstarts as they were in blocking immigration to Canada.



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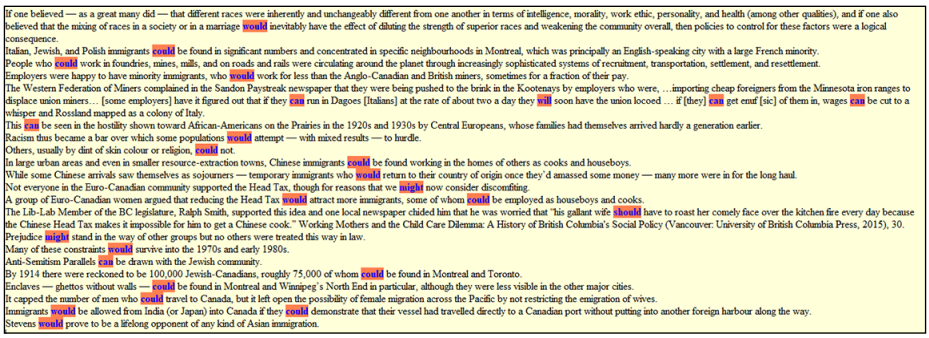
Function / Level	*4. Whole text (entire textbook and/or a chapter of a textbook)*	*5. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*6. Sentence / clause level*
B. interpersonal	To what extent is information presented as factual or tentative? To what extent is information provided in an authoritative and impersonal way? Does the writer try to make the reader agree with his/her stance/ claims/worldview? If so, how?		How and to what extent do writers hedge their positions with modal verbs and/or other words / expressions conveying the same meaning?

The data used in the activity below have been retrieved with Text Feature Analyzer. The interactive interface of Voyant is embedded in the learning platform.

Look at the modals used in "Race, ethnicity, and immigration". To what purpose does the author use modals (provided below) and/or words with similar meaning (some examples to be searched using the Voyant interface are provided below)? To what extent do modals and similar words convey the author's stance and various degrees of certainty?
Discuss the data with your partner and then share your findings on Mural.

- *Certainty/doubt adverbials include*: no doubt, certainly, undoubtedly, probably, perhaps, maybe, arguably, decidedly, definitely, incontestably, incontrovertibly, most likely, very likely, quite likely, of course, I guess, I think, I bet, I suppose, who knows (Biber, Conrad and Leech 2002: 383).
- *Actuality and reality adverbials include*: in fact, really, actually, in actual fact, for a fact, truly (*ibidem*).
- *Source of knowledge adverbials include*: evidently, apparently, reportedly, reputedly, according to X, as X reports/notes (*ibidem*).
- *Limitation stance adverbials include*: in most cases, in most instances, mainly, typically, generally, in general, on the whole (*ibidem*).
- *Viewpoint or perspective adverbials include*: in our view, from our perspective, to my knowledge, to the best of our knowledge (ivi: 384).
- *Imprecision adverbials include*: like, sort of, kind of, so to speak, if you can call it that (*ibidem*).


If one believed — as a great many did — that different races were inherently and unchangeably different from one another in terms of intelligence, morality, work ethic, personality, and health (among other qualities), and if one also believed that the mixing of races in a society or in a marriage would inevitably have the effect of diluting the strength of superior races and weakening the community overall, then policies to control for these factors were a logical consequence.
Italian, Jewish, and Polish immigrants could be found in significant numbers and concentrated in specific neighbourhoods in Montreal, which was principally an English-speaking city with a large French minority.
People who could work in foundries, mines, mills, and on roads and rails were circulating around the planet through increasingly sophisticated systems of recruitment, transportation, settlement, and resettlement.
Employers were happy to have minority immigrants, who would work for less than the Anglo-Canadian and British miners, sometimes for a fraction of their pay.
The Western Federation of Miners complained in the Sandon Paystreak newspaper that they were being pushed to the brink in the Kootenays by employers who were, …importing cheap foreigners from the Minnesota iron ranges to displace union miners… [some employers] have it figured out that if they can run in Dagoes [Italians] at the rate of about two a day they will soon have the union locoed … if [they] can get emf [sic] of them in, wages can be cut to a whisper and Rossland mapped as a colony of Italy.
This can be seen in the hostility shown toward African-Americans on the Prairies in the 1920s and 1930s by Central Europeans, whose families had themselves arrived hardly a generation earlier.
Racism thus became a bar over which some populations would attempt — with mixed results — to hurdle.
Others, usually by dint of skin colour or religion, could not.
In large urban areas and even in smaller resource-extraction towns, Chinese immigrants could be found working in the homes of others as cooks and houseboys.
While some Chinese arrivals saw themselves as sojourners — temporary immigrants who would return to their country of origin once they'd amassed some money — many more were in for the long haul.
Not everyone in the Euro-Canadian community supported the Head Tax, though for reasons that we might now consider discomfiting.
A group of Euro-Canadian women argued that reducing the Head Tax would attract more immigrants, some of whom could be employed as houseboys and cooks.
The Lib-Lab Member of the BC legislature, Ralph Smith, supported this idea and one local newspaper chided him that he was worried that "his gallant wife should have to roast her comely face over the kitchen fire every day because the Chinese Head Tax makes it impossible for him to get a Chinese cook." Working Mothers and the Child Care Dilemma: A History of British Columbia's Social Policy (Vancouver: University of British Columbia Press, 2015), 30.
Prejudice might stand in the way of other groups but no others were treated this way in law.
Many of these constraints would survive into the 1970s and early 1980s.
Anti-Semitism Parallels can be drawn with the Jewish community.
By 1914 there were reckoned to be 100,000 Jewish-Canadians, roughly 75,000 of whom could be found in Montreal and Toronto.
Enclaves — ghettos without walls — could be found in Montreal and Winnipeg's North End in particular, although they were less visible in the other major cities.
It capped the number of men who could travel to Canada, but it left open the possibility of female migration across the Pacific by not restricting the emigration of wives.
Immigrants would be allowed from India (or Japan) into Canada if they could demonstrate that their vessel had travelled directly to a Canadian port without putting into another foreign harbour along the way.
Stevens would prove to be a lifelong opponent of any kind of Asian immigration.

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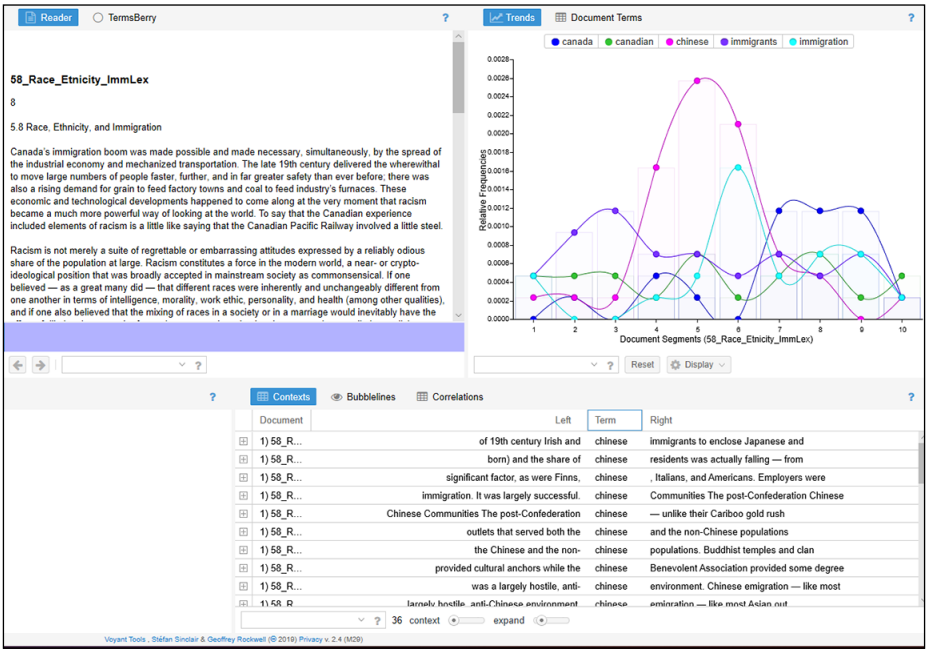

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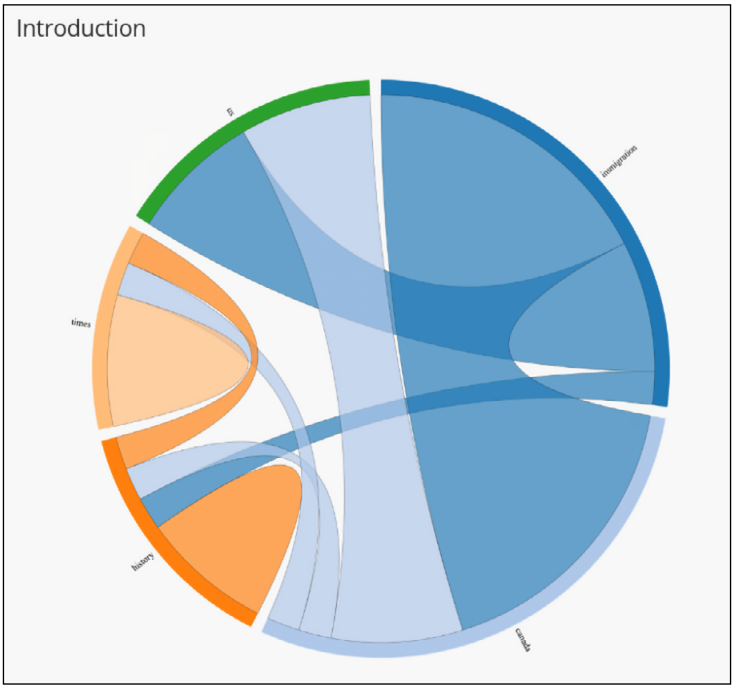
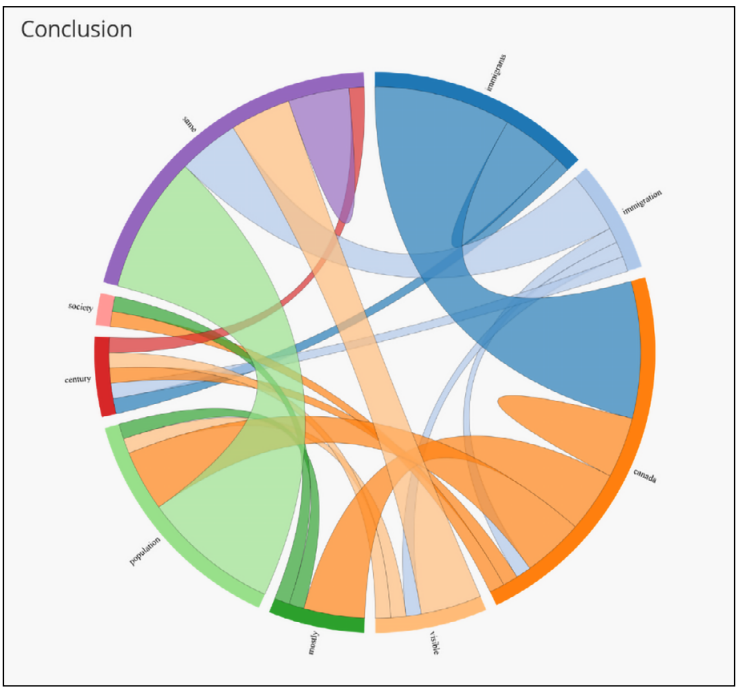
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How are keywords used to build disciplinary knowledge in a textbook chapter (in the introduction, the middle subchapters, and the conclusion)? How are keywords interconnected?	How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	

The data used in the activity below have been retrieved with KWords.

Look at how keywords ("keywords: word forms that are often closely connected to the overarching themes and the genre of a text"[34]), retrieved with KWords, are interrelated – "KWords can […] show relations between keywords. This function allows you to see which keywords (and the topics they represent) are more linked together than others"[35] – in the introduction and in the conclusion of chapter five, "Immigration and the immigrant experience". What are the main differences and similarities? What do they suggest in terms of topic management in the two different genre-specific sections? What do they suggest in relation to the perspective the author adopts to present the various topics?
Discuss the data with your partner and then share your findings on Mural.

34. *kwords.korpus.cz*.
35. *Ibidem*.





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Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational	How do the introduction, the middle subchapters, and the conclusion of a textbook chapter organize subject-specific knowledge (such as key topics)?	How are key topics and topic patterns organized in the introduction and conclusion of a textbook chapter? How are key topics and topic patterns organized in the various middle sections of a textbook chapter? How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	

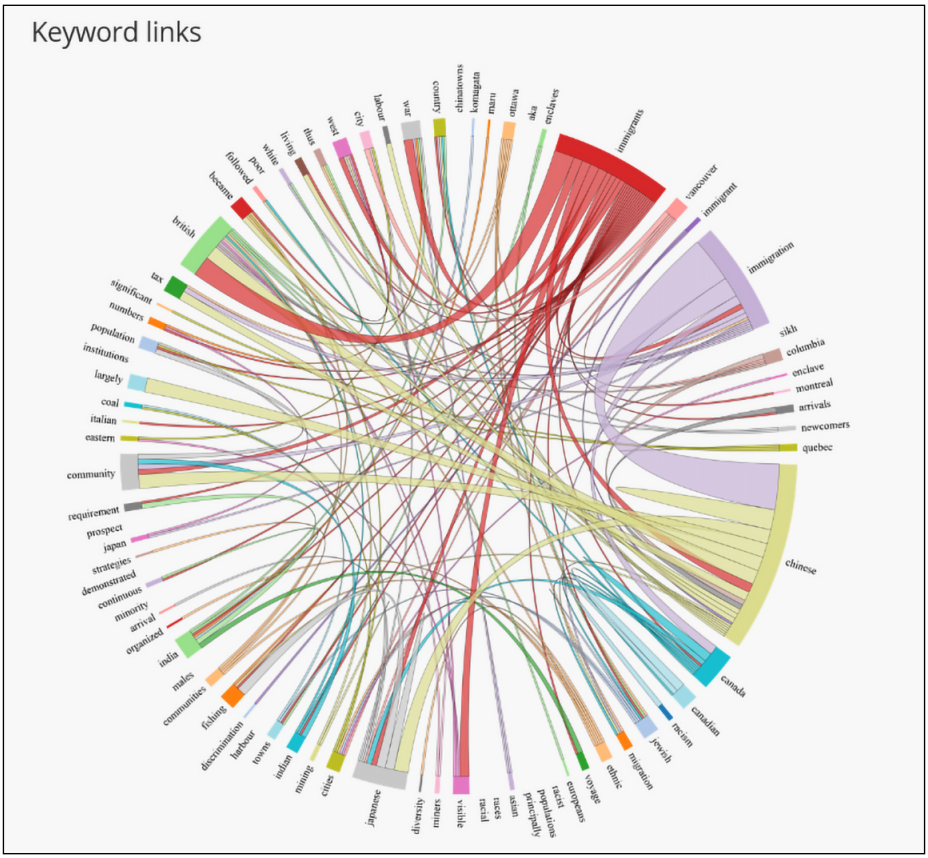
The data used in the activity below have been retrieved with KWords.

A) First, look at the images provided and analyze how keywords ("keywords: word forms that are often closely connected to the overarching themes and the genre of a text"[36]), retrieved with KWords, are interrelated – "KWords can […] show relations between keywords. This function allows you to see which keywords (and the topics they represent) are more linked together than others"[37] – in subchapter 5.8, "Race, ethnicity, and immigration". What do these connections suggest in terms of topic organization and evaluation? What do these connections suggest in relation to the perspective the author adopts to present the various topics?

B) Then compare your findings with the ways keywords are interrelated in the introduction and the conclusion (see activity carried out previously). What are the main differences and similarities? What do the data suggest in terms of topic organization and evaluation in the three different genre-specific sections? What do they suggest in relation to the perspective the author adopts to present the various topics?

Discuss the data with your partner and then share your findings on Mural.

36. *Ibidem*.
37. *Ibidem*.



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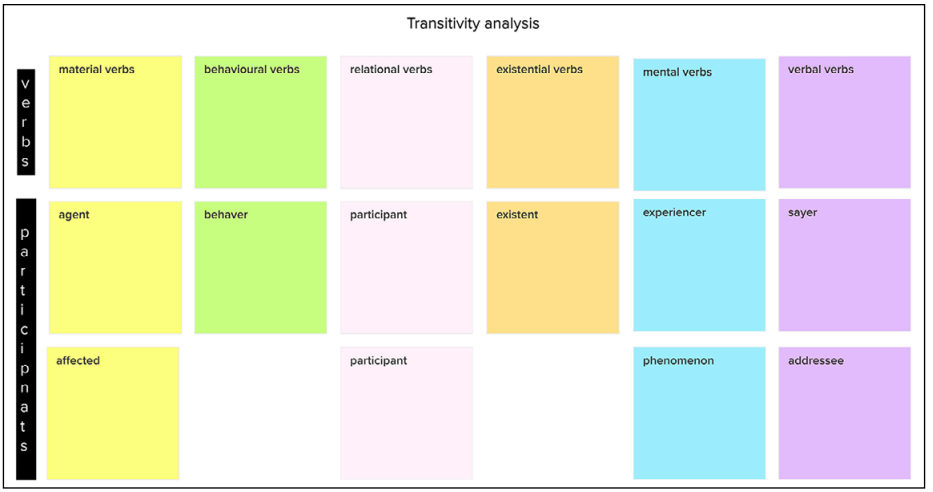
Function / Level	*1. Whole text (entire textbook and/or a chapter of a textbook)*	*2. Paragraph/Phase (such as introduction / middle sections / conclusion of a single chapter)*	*3. Sentence / clause level*
A. Ideational		How are interrelated key topics organized and interconnected in a disciplinary knowledge text? How are key topics aggregated in the text?	Transitivity analysis. What types of verbs are mostly used? What types of participants are mostly used? What kinds of prepositional phrases (circumstances) and adverbs (encoding time, place, manner, frequency, duration) are mostly used? What do these data suggest? How do these data convey the writer's worldview?

Students will use the Mural provided below to share the findings of the activity that follows.



The data used in the activity below have been retrieved with Word Sketch available in SketchEngine; this is one of the few ways in which the elements necessary to carry out transitivity analysis can be retrieved automatically, without programming skills, and through visualization.

On the grounds of the information provided in the images provided, how are 'immigrant', 'immigration', 'ethnic', and 'community' likely to be portrayed and evaluated in "Race, ethnicity, and immigration"?

- To what extent do the types of verbs used convey the processes specific to the subject-specific discourse of history (such as describing events and phenomena, identifying, defining, classifying, linking cause and effect, making hypotheses etc.)? What do these data suggest in relation to the way the content of the chapter is presented and the subject-specific discourse is used in a history book chapter?

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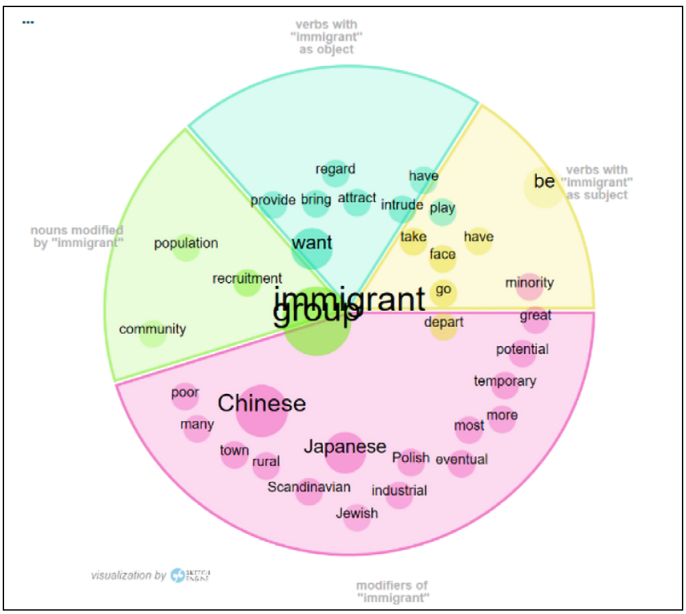
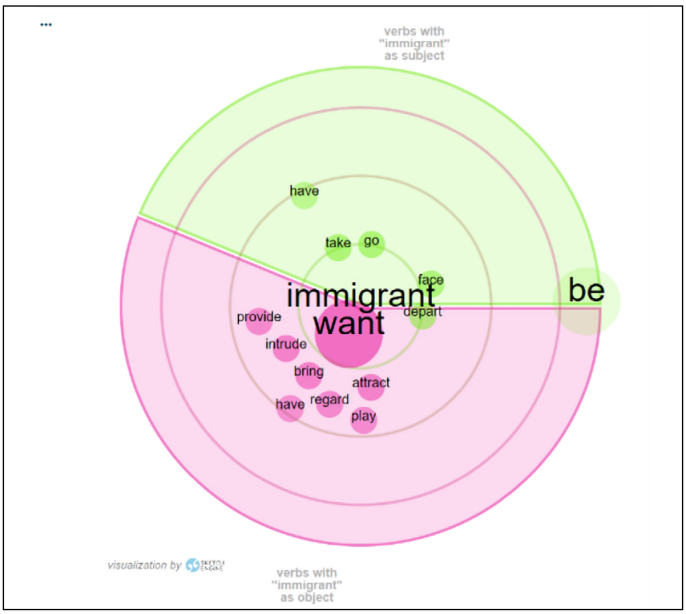
- What is the main role assigned to participants? To what extent do participants seem to be conceived as active or passive? What does it entail in terms of subject-specific discourse?

Discuss the data with your partner and then share your findings on Mural.





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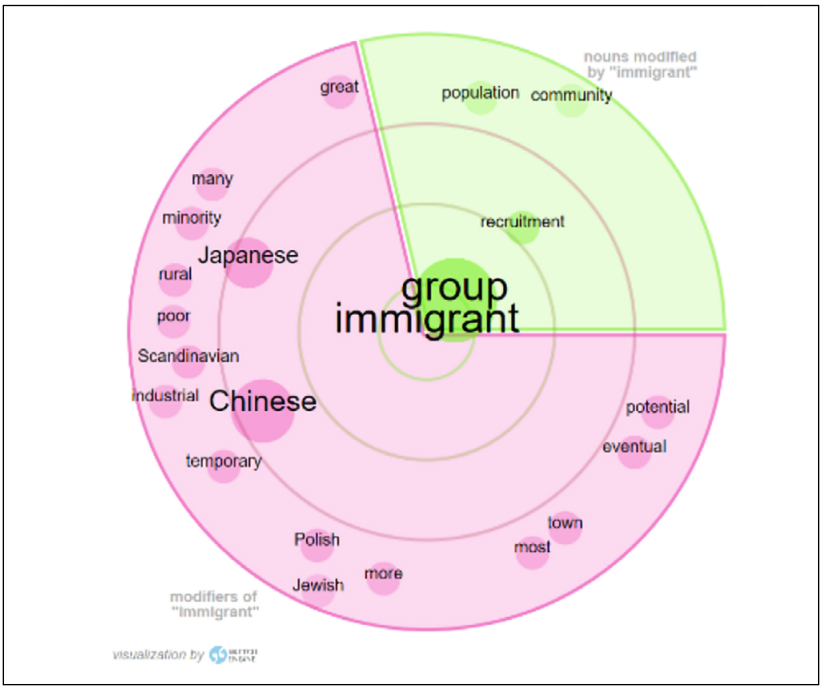

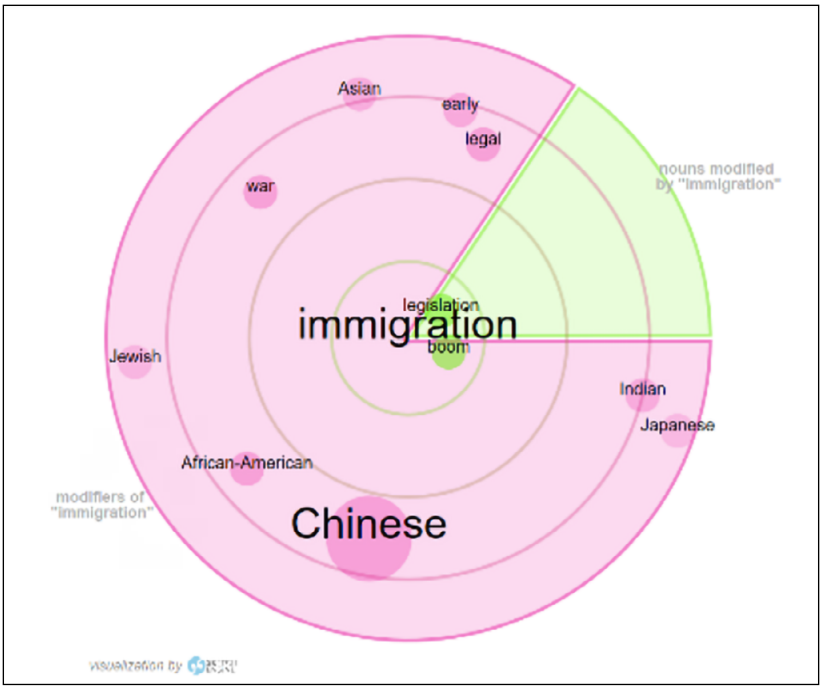

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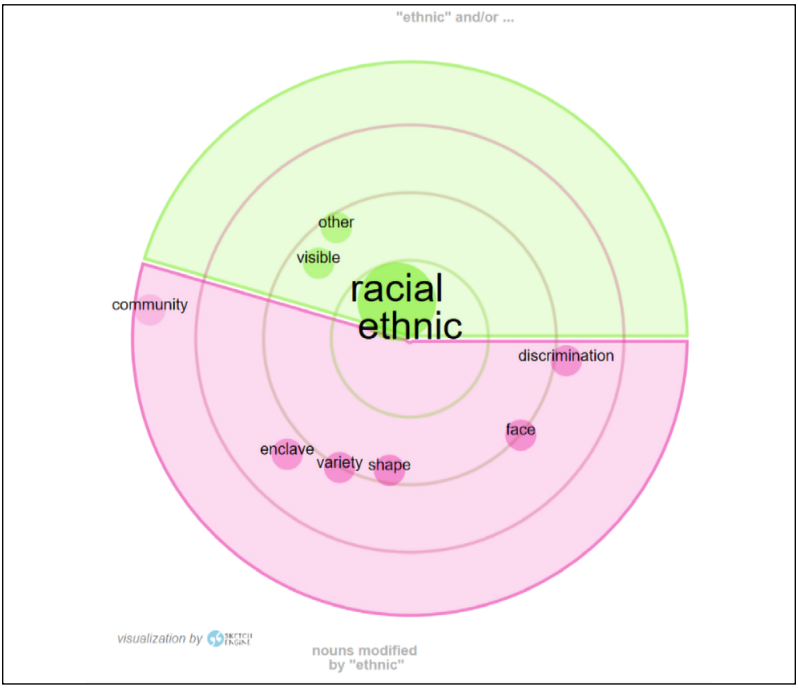

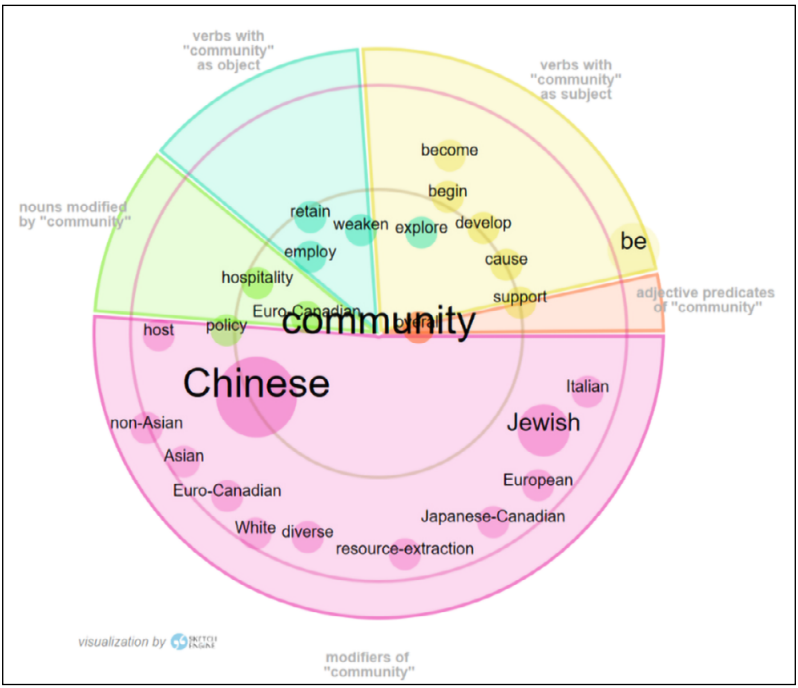

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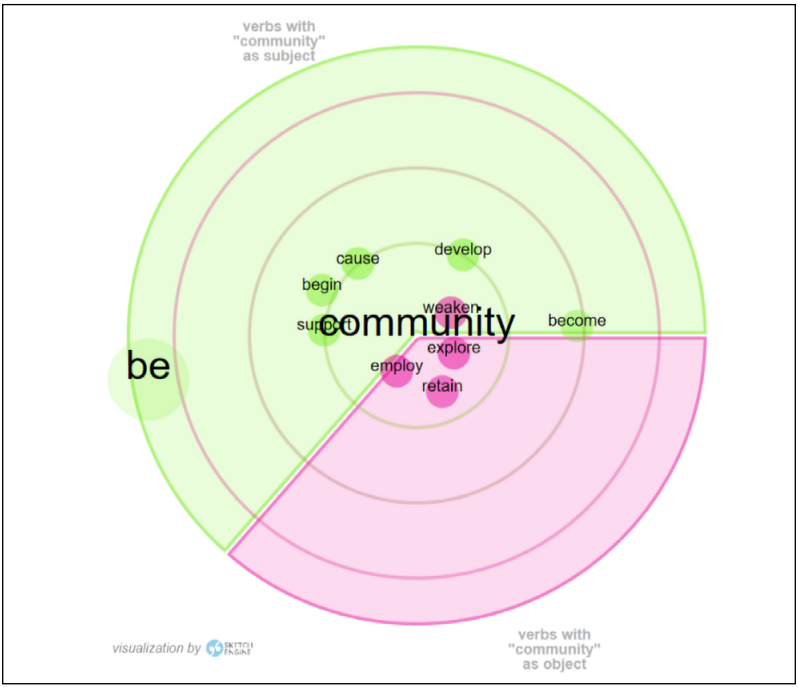

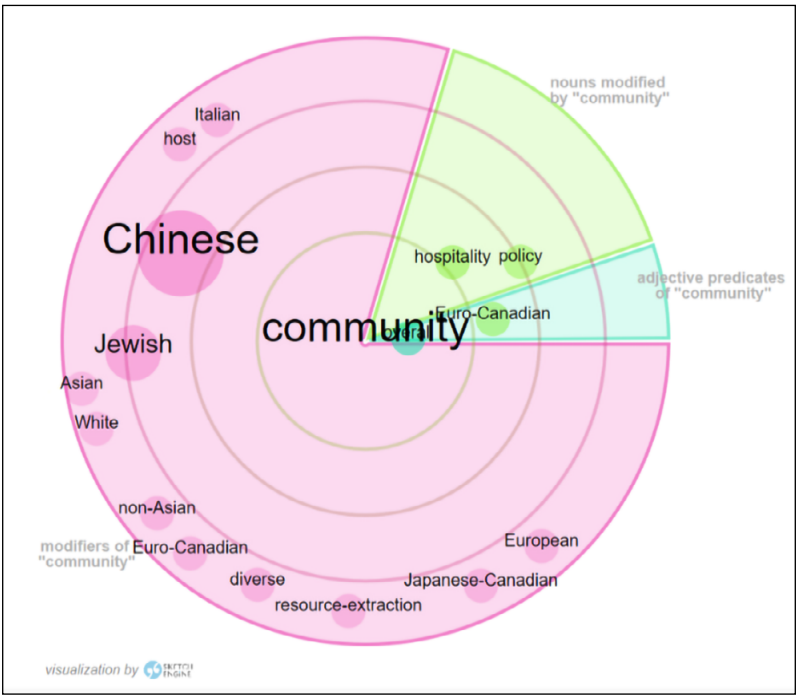

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4.

HYFLEX COURSES FOR ETPs: A PROTOTYPE FOR LOCAL AND GLOBAL SETTINGS

4.1. The internationalization of the curriculum

A digitally-enhanced SFL-informed critical approach to literacy can be suitable for ETP courses in general and online, blended, and HyFlex ETP courses in particular. This practice may also be especially suited to virtual mobility, conceived as a form of internationalization, where ETP students from distant international locations engage in epistemic co-construction in English as an additional language.

The latest definition of internationalization in higher education, which slightly expands on Knight's previous definitions (2004, 2008)[1], reads as follows:

> The intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education, in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society (de Wit, Hunter, Howard and Egron-Polak 2015: 29).

Although the term internationalization has been increasingly used as a general construct (de Wit and Hunter 2015: 45), the internationalization process has witnessed the development of various concepts and formats, namely Internationalization, Comprehensive Internationalization (CI)[2], Internationalization of the curriculum (IoC), and Internationalization at Home (IaH). Internationalization features two main broad streams, namely Internationalization abroad and Internationalization at Home. On the one hand,

1. Knight's definition of the internationalization of higher education, based on his previous definition (Knight 2004: 11), is the following: "Internationalization of higher education is the process of integrating an international intercultural, and global dimension into the purpose, functions (teaching, research, and service), and delivery of higher education at the institutional and national levels" (Knight 2008: XI).

2. Comprehensive internationalization, in particular, highlights the importance of "infus[ing] international and comparative perspectives throughout the teaching, research, and service missions of higher education" (Hudzik 2011: 6).

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internationalization abroad entails physical mobility of students, staff, and providers as well as cross-border education, specifically transnational education (TNE)[3]. On the other hand, Internationalization at Home, which has been identified as the most rapidly increasing type of internationalization (Matross Helms and Rumbley 2019: 131), consists of a series of strategies suitable for developing non-mobile campus-based students' global and intercultural competences (Beelen and Jones 2015: 69). In this respect, Leask warns against the idea that the mere presence of international students on campus can result in an internationalized curriculum (2015: 11). IaH entails in fact the development of curriculum-based teaching/learning practices targeted at fostering the development of global dimensions on campus and requires an internationalized curriculum of degree programs and/or subject-specific courses: "the internationalization of learning outcomes, pedagogy and assessment are at the heart of Internationalization at Home" (Beelen and Jones 2015: 64). ETPs may thus not contribute to IaH unless they develop an internationalized curriculum: "It is the content, the pedagogical approach and the learning outcomes, as well as the support services, that need to be internationalised if a meaningful international experience is to be offered to all students" (de Wit and Hunter 2015: 51).

Internationalized learning outcomes, the driving force of the internationalized curriculum, represent the core dimension underpinning the latest internationalization processes (Beelen and Jones 2015: 66). For a curriculum to be internationalized, global subject-specific learning outcomes[4] need to be embedded into disciplinary course syllabi (de Wit and Hunter 2015: 49) along with scaffolding strategies and activities suited to fostering students' global, intercultural, and language competences (Leask 2009, 2015)[5]. The internationalization of the curriculum thus entails the inclusion of explicitly stated international, global, and intercultural dimensions[6] in the degree/course learning outcomes and related teaching/learning and student engagement practices (Leask 2015: 10). As a result, the internationalization of the curriculum requires the refocusing of learning outcomes at program and/or course level through the inclusion of a global perspective. Refocused learning outcomes are

3. Transnational education (TNE) is "Award- or credit-bearing learning undertaken by students who are based in a different country from that of the awarding institution" (O'Mahony 2014: 8).

4. "Learning outcomes are statements of what we want students to learn as the result of the learning activities they undertake during a course and a program" (Leask 2015: 11).

5. In this perspective, it is important to notice that while for quite a long time in Europe internationalization has mainly entailed student and staff mobility, in the Anglophone area, such as the United Kingdom and Australia, internationalization has mostly been implemented through the internationalization of the curriculum and learning outcomes (de Wit and Hunter 2015: 44).

6. International and intercultural learning outcomes encompass various dimensions including those suitable for developing global professionals, such as "communicating and working effectively across cultures, the ability to think globally and consider issues from a variety of perspectives, awareness of one's own culture and the capacity to apply international standards and practices within the discipline or professional area" (Leask 2015: 13).

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expected explicitly to foster students' development of "the graduate[7] attribute of a Global Outlook […] [which connects] inclusivity and global relevance […] to contribute to the development of graduates as global citizens" (Jones and Killick 2013: 166-170). In the global outlook, interconnected dimensions, such as global relevance[8], inclusivity[9], equality and diversity, emerge as pivotal components (Jones and Killick 2013: 165).

At Leeds Metropolitan University, the refocusing of the learning outcomes has been carried out by making the dimensions of the attributes related to the global outlook explicit in subject-specific course syllabi as well as fostering active learning conducive to inclusion (Jones and Killick 2013: 170-174). The guidelines devised at Leeds Metropolitan University may be useful to other institutions to refocus internationalized learning outcomes at curriculum and/or subject-specific course levels:

Students will be able to [make appropriate subject-specific substitutions to the bracketed sections]:

- explain how [specific aspects of practice] impact upon the lives of people locally and in diverse global contexts;
- critically review [current UK practice] through reference to practice in [two] other countries;
- present an analysis of [the subject] appropriately for an audience of diverse cultures and first languages;
- make a significant positive contribution as a member of a multicultural/international team work project;
- effectively conduct primary research involving participants from a range of cultural backgrounds;

7. "Internationalization and equalization, framed as a process through which we seek to develop learning experiences which enable all our students to make their way in a multicultural and globalizing world, requires decisions concerning the capabilities which our students-as-graduates will need. The ways those capabilities are framed needs to be applicable to all our students, regardless of their chosen discipline. Such capabilities have come to be described in some contexts as graduate attributes" (Killick 2017: 57).

8. "2. globally relevant – for all students graduating, seeking employment and going on to shape their personal lives in a multicultural, globalising world, with its increased connectivities, unpredictabilities and mobilities. In internationalisation of the curriculum work, the concern is to ensure the student sees how their discipline and the professions to which it relates fit into this rapidly evolving global context, and to equip them with attributes such as cross-cultural capability and global perspectives which will enable them to 'make their way' responsibly in this world, professionally and personally" (Killick 2011: 18-19).

9. "1. inclusive – non-discriminatory, appropriate, transparent […]. Each student is part of the diversity of the institution, and as such they benefit when we interrogate and improve our practice to best meet individual student needs and value individual student perspectives and contributions whatever their nationality, ethnicity, gender etc. A similarly inclusive attitude towards 'others' locally and globally is encompassed in the graduate attribute of 'global outlook'" (Killick 2011: 18-19).

- synthesise a range of international data sources as the basis for an analysis of potential problems and benefits associated with [the expansion of this practice];
- critique the themes presented in [this area] from [two] alternative international perspectives;
- find commonly acceptable ethical solutions to complex global problems relating to [this area];
- present a critically reasoned and respectful argument in favour of one specific socio-cultural response to [this area];
- detect bias, stereotypical thinking and prejudicial opinion in published material relating to [this issue];
- advance creative solutions for [this problem] which demonstrate appropriate consideration of at least one global (non-UK) context in which they will be applied (Killick 2011: 7-8).

Some examples of internationalized learning outcomes follow:

Table 4: Examples of internationalized learning outcomes (Killick 2011: 11)

Original Learning Outcome *Students will be able to…*	*Modified Learning Outcome* *Students will be able to…*
debate the ethical responsibilities of science in society with reference to current issues	debate the ethical responsibilities of science with reference to current issues in a multicultural society
list the different components of fitness and evaluate their contribution to functional capacity	list the different components of fitness and evaluate their contribution to functional capacity with appropriate reference to issues of race, gender and cultural contexts

The internationalization of the curriculum, implemented by refocusing learning outcomes through a global outlook, entails an analysis of culturally loaded subject-specific components of the disciplinary knowledge systems and subject-specific literacies with which students engage. The digitally-enhanced SFL-informed critical language awareness framework devised in the present work and focusing on content-specific literacies thus seems to be especially suitable for an ETP internationalized curriculum, serving as an active agent of inclusive internationalization processes.

4.1.1. Internationalization at Home (IaH), virtual mobility, and the internationalized curriculum

Mobility is part of the Internationalization process. All mobility formats available as part of the ErasmusPlus program (namely physical, virtual, and blended) aim for learners to become engaged in an international multi-campus experience instrumental in the development of multifaceted internationalization (Henderikx and Ubachs 2019: 11-14). Various kinds of

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interrelationships between degree/course curricula and mobility formats are currently available:

- Embedded mobility within a course;
- Exchange mobility for individual students (virtual Erasmus mobility);
- Networked mobility in networked curricula and courses with mobility windows;
- Integrated mobility in joint curricula (Henderikx and Ubachs 2019: 16).

In terms of course-embedded mobility, part of the same course curriculum can be delivered through face-to-face and/or virtual workshops, seminars, summer/winter schools, and projects (Henderikx and Ubachs 2019: 17). The most widespread mobility format, namely exchange mobility, may consist in both physical and virtual experiences; in networked programs, instead, each partner institution offers (physical/blended/virtual) mobility windows through courses which are not available in the other universities and that students from the various networked institutions can attend (Henderikx and Ubachs 2019: 20-25). Through (physical/blended/virtual) mobility, students can also pursue a degree program, featuring a joint curriculum, delivered by two or more universities to which the program belongs (Henderikx and Ubachs 2019: 26).

While physical exchange mobility has not affected the content of the university courses, newly emerging mobility schemes (such as international networked curricula[10]) also entail the reorganization of courses to a certain extent (Henderikx and Ubachs 2019: 10). In this respect, blended and online mobility, which include the interaction of distant-located learners through digitally-enhanced learning, have emerged as new mobility formats mainly in the last decade, along with the use of open educational resources (Henderikx and Ubachs 2019: 5-11). These types of digitally-enhanced mobility, which are likely to increase in the near future, are conceived as intrinsically connected with the development of innovative and transformative pedagogical practices (Beelen and Jones 2015; Henderikx and Ubachs 2019). In this respect, the European University Initiative advocates a significant drive towards the development of both innovative digital pedagogical practices, embedded in blended discipline-specific curricula and/or courses delivered through virtual mobility, and foreign languages (European Council 2017: 3-4).

In general, only around 20% of European students participate in physical mobility (de Wit and Leask 2015; Ubachs and Henderikx 2018) and the percentage is likely to decrease at least for some time in post-pandemic education. As a result, virtual mobility may be instrumental in providing a global experience for domestic students who would never be able to take part in physical international

10. "International networked curricula[:] […] each university retains its own programme, but opens a consistent mobility window for organized mobility flows from other universities. Networked curricula and mobility windows have an impact on curricula and courses, because universities divide (specialized) course packages between them and offer structured mobility flows within the network" (Henderikx and Ubachs 2019: 10).

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mobility in general and in a post-pandemic situation in particular. Providing students with the skills suitable for enhancing their employability is also key in IaH development. This objective has emerged as the result of studies which show that students with an international experience abroad are more likely to be employed compared to those who have no international experience, which suggests that virtual mobility may play a key role especially for non-mobile students (Beelen and Jones 2015: 68).

In this perspective, the integration of virtual mobility as part of IaH is likely to increase in the near future especially in the post-pandemic context (Leask 2020). The development of innovative technology-enhanced pedagogical practices and the use of Open Educational Resources may be extremely beneficial in this respect. In particular, virtual mobility, fostered through joint international digitally-enhanced projects and/or courses, represents one of the key strategies to foster "equal access to internationalization opportunities for all students" (Beelen and Jones 2015: 64). To this purpose, virtual mobility requires the integration of internationalized learning outcomes into discipline-specific course curricula and syllabi (Beelen and Jones 2015: 69).

The use of OERs and the digital OER-driven teaching strategies characterizing Open Educational Practices can be orchestrated to successfully promote virtual mobility and inclusion in higher education (Stagg and Bossu 2016: 128) while also catering to students' needs in a post-pandemic context. In this perspective, open pedagogy can enrich students' learning experiences, providing them with authentic internationally-produced learning materials, customized to meet their local and global needs, and suitable for promoting virtual networked learning experiences (Stagg and Bossu 2016: 128). From an equity and inclusive perspective, virtual mobility in ETPs can use Open Educational Resources so that students can experience Zero Textbook Classes (ZTC) and engage with course-customized open textbooks.

The Erasmus+ Virtual Exchange[11], an example of virtual mobility[12] focusing mainly on foreign language learning and intercultural communication but also on disciplinary and interdisciplinary topics, has increased significantly in the last decades (Guth, Helm and O'Dowd 2012; Jin 2013; Liddicoat and Scarino 2013; O'Dowd 2016; Lewis and O'Dowd 2016b; Vinagre 2016; Carloni and Zuccala 2017; Porto 2017; Carloni and Zuccala 2018; Sykes 2018; Carloni and Zuccala 2020; Helm 2020). However, the design and implementation of virtual mobility are still a challenge for universities in general and ETPs in particular, where disciplinary knowledge systems are mainly constructed through English-

11. *europa.eu/youth/node/54451_en*.

12. "Online intercultural exchange (OIE), also referred to widely as telecollaboration or virtual exchange, is […] [the] nomenclature [used] for denoting the engagement of groups of students in online intercultural interaction and collaboration with partner classes from other cultural contexts or geographical locations under the guidance of educators and/or expert facilitators" (Lewis and O'Dowd 2016a: 3).

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only subject-specific discourses and where the use of English as a medium of instruction and theorizing practices may in fact constitute a challenge for speakers of English as an additional language (Henderikx and Ubachs 2019: 39). Furthermore, there are no language awareness frameworks available to date to foster digitally-enhanced language development along with content in virtual ETP environments. In this respect, the need for the development of a framework consisting of transformative digital practices suitable for virtual mobility in ETPs has increasingly emerged (de Wit and Hunter 2015; de Wit and Leask 2015; Marinoni, Egron-Polak and Green 2019). In this perspective, higher education institutions need to find their own specific approach to internationalization while also building on the practices experimented by others (De Wit and Hunter 2015; Marinoni, Egron-Polak and Green 2019). In this light, the present work has developed new practices consisting in digitally-enhanced SFL-informed language awareness suitable for ETPs in general and ETP virtual mobility in particular. To this purpose, a text mining-driven SFL-informed embedded disciplinary literacy framework has been devised[13]. Furthermore, in the following sections, the prototype of a HyFlex course module is devised suitable for fostering virtual mobility in ETPs (global level) while at the same time catering to students' multifarious needs (local level), including post-pandemic social distancing. In this light, it is important to mention that from a superdiverse perspective, aimed at fostering a critical view of disciplinary discourses in English, the text mining-driven SFL-informed language awareness practices can be especially useful to challenge the implicit adoption of English monolingual knowledge building systems in ETPs. Analyzing how Anglo-English academic discourses shape subject-specific knowledge can in fact prevent the implicit adoption of an English-only epistemic perspective in a diverse global environment. In this respect, the digitally-enhanced SFL-informed embedded disciplinary literacy framework devised in the present work can provide ETP students – including domestic and non-mobile students – engaged in virtual mobility with the opportunity to develop language awareness and critical thinking from a global perspective.

4.2. Course design

In the present post-pandemic situation, university instructors in general and ETP instructors in particular face a dual challenge, i.e. first designing and then implementing their courses in a flexible format. Instructors may thus need some guidelines on how to design and implement flexible learning, namely online, blended and/or HyFlex courses, including digitally-enhanced SFL-informed language awareness.

While designing online, blended and Hyflex courses, instructors need to

13. See chapter 3.

allocate more time to course design before the course starts since "the design happens more before the course than during the course. This implies a different way of organizing the teacher's work" (Rapanta *et al*. 2020). In this respect, it is important to make a distinction between instructional design (ID), which "is a process, or series of suggested steps, that teachers can use to plan, implement, and evaluate their instruction" (Carr-Chellman 2016: xiv), and learning design (LD) which

> focuses on context-based opportunities for the emergence of a continuum of varied strong to weak ties among learners, teachers/tutors, and learning resources that can indirectly support – rather than directly predetermine – a specific route toward successful learning outcomes (Jones, Ferreday, & Hodgson, 2008). Importantly, the practice of LD does not focus on designing learning per se. Rather it focuses on creating conditions for effective (Conole, 2016), emergent (Hodgson, de Laat, McConnelll, & Ryberg, 2014) learning opportunities (Parchoma *et al*. 2019: 9).

Although ID and LD both draw on a socio-constructivist approach, a one-size-fits-all approach mainly characterizes instructional design while more individualized, context-driven, diverse, inclusive, and collaborative learning characterizes learning design (Parchoma *et al*. 2019). Instructional design focuses more on the instructional component targeted at the successful achievement of the standardized course learning outcomes on the part of the learners (Mor, Craft and Maina 2015; Sims 2015; Parchoma *et al*. 2019). Learning design, instead, focuses more on devising learner-centered contextualized collaborative learning activities – targeted at producing a change whether at cognitive, knowledge, individual or social level – while catering to diversity and inclusion (Mor, Craft and Maina 2015; Sims 2015; Parchoma *et al*. 2019). ID and LD have recently found a shared dialogically-driven third space in the conceptualization of design for learning – "learning cannot be designed. […] [It] can be designed for" (Goodyear 2015: 41) – which enables course designers and instructors to move critically between the practices of instructional design and learning design to develop hybrid effective contextualized learning environments (Parchoma *et al*. 2019). While designing for learning (Goodyear 2015; Laurillard 2016), instructors have to bear in mind that students' active learning is pivotal in digitally-enhanced instruction: "Successful online learning requires student-centered design, i.e. carefully thinking about what students will actually have to do to learn" (Rapanta *et al*. 2020). In particular, design for learning, especially suitable for course design in higher education (Goodyear 2015: 28), entails "design[ing]: (i) good learning tasks, (ii) properly supportive physical and digital environments, and (iii) forms of social organisation and divisions of labour" (Goodyear 2015: 32).

The outcomes-based learning approach, which requires the alignment between the intended learning outcomes, the activities implemented, and the assessment (Biggs 2003), is suited to designing courses from a design for learning perspective. The approach requires instructors to identify first

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the course learning outcomes and then decide the types of engagement and assessment suitable for first promoting and then evaluating the expected results (Biggs 2003). From this theoretical perspective, in online and blended courses, teaching strategies and activities also need to be aligned with suitable educational technologies, acting as mediating tools scaffolding learners' engagement with multimodal meaning-making processes (Hampel 2020: 623-3219)[14].

Online and blended learning entail more student-centered learning, i.e. students need to take ownership of their own learning processes, while the instructor acts as a facilitator (Bates 2016; Rapanta *et al*. 2020). Furthermore, the alignment of course learning outcomes, teaching strategies, and activities with assessment is of paramount importance in keeping with Bigg's constructive alignment (2003). The alignment of learning outcomes and assessment is also pivotal due to the backwash effect, i.e. students study what they think the exam will focus on (Biggs 2003: 140). Assessment may be a challenge when transitioning a course from face-to-face to online and blended formats where continuous assessment and self-regulation play a crucial role (Rapanta *et al*. 2020); thus, online and blended assessment formats need to be carefully selected (Conrad and Openo 2018).

An outcomes-based learning approach often uses a backward design, also called Understanding by Design, such as the three-stage design illustrated by Wiggins and McTighe (2012). In a backward design, starting from big ideas, namely the core concepts that students should master by the end of the course, first instructors formulate the course learning outcomes, then they decide the assessment criteria, and afterwards they choose the strategies and activities suitable for helping students meet the assessment criteria (Wiggins and McTighe 2012). The design process may not be linear since instructors are likely to move back and forth between the various components during course design (Wiggins and McTighe 2012).

While designing online, blended, and HyFlex learning, instructors need to work on course design, delivery, and assessment within a sound pedagogical framework, such as the Community of Inquiry framework, previously introduced, based on a socio-constructivist view of learning. In this respect, collaborative learning is conceived as instrumental in fostering deep learning:

> Collaborative learning techniques are well suited for creating the kinds of active, participatory, authentic tasks that achieve […] enduring understanding […]. Such tasks require students to think critically (not just recall knowledge) and to struggle with complex challenges that mirror the issues and problems faced by scholars in the discipline (Barkley, Major and Cross 2015: 1490-1492).

14. "Learning is a social process which has to do with how people appropriate and master tools (including technology) in a given culture (Vygotsky 1978; Säljö 1999) and allows for a focus on mediation. […] Like speech and language, technology is such a tool that mediates activity and through which humans can engage with and impact on their environment" (Hampel 2020: 639-916).

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4.2.1. Collaborative learning

Collaborative learning draws on a socio-constructivist view of knowledge and language development which envisages content and language learning as socially constructed (Selwyn 2016; Darby and Lang 2019; Hampel 2020). Collaborative learning is especially suited to fostering students' active learning and social presence in online, blended, and HyFlex courses. In these digital spaces, collaborative learning entails the use of educational technologies enhancing distributed cognition[15], i.e. "the ability to interact meaningfully with tools that extend mental capacities" (Reinhardt and Thorne 2019: 223), and collective intelligence, i.e. "the ability to pool knowledge and compare notes with others toward a common goal" (Reinhardt and Thorne 2019: 223).

In keeping with the teaching presence of the Community of Inquiry model, for collaborative learning to reach its intended outcomes, tasks need to promote divergent thinking and require students to justify their positions and possibly come up with a shared solution:

> Good tasks present open-ended critical thinking problems that require solutions justified with supporting arguments. Typical tasks ask students to reach a consensus on a solution to a disciplinary problem; when consensus is impossible, students can also 'agree to disagree', in which case final group reports will include majority and minority views with clarifying explanations of the causes of disagreement. […] [A] task promotes controversy, has a […] a disciplinary content goal and a thinking or arguing goal (Bean 1996: 151-154).

Collaborative learning, used as a blanket term, has three main components: intentional design, co-laboring, and meaningful learning (Barkley, Major and Cross 2014: 726-727). In this respect, collaborative tasks need to be carefully structured to scaffold students' intentional learning effectively; in fact, collaborative learning requires learners to accomplish a sequence of steps scaffolding their consistent engagement with content and peers (Barkley, Major and Cross 2014: 524-527). Positive interdependence, i.e. the successful achievement of the group is dependent on the equitable contributions of each group member, and individual and group accountability, i.e. students are considered responsible for the successful completion of the tasks at individual and group level, are important elements of collaborative learning (Smith 1996; Johnson, Johnson and Smith 1998; Laal 2013; Johnson, Johnson and Smith 2014; Darby and Lang 2019). In collaborative work, all group members need to contribute actively and equally to task completion (Bean 1996; Barkley, Major and Cross 2014). To reach this objective, group members may be assigned

15. "For sociocultural theorists, cognition is […] understood as shared and situated and thinking as social practice. […] Sociocultural theory is thus well suited […] to examine the use of digital tools and to do so in the context of language learning and teaching" (Hampel 2020: 858-898).

specific roles, such as facilitator, recorder, reporter, timekeeper, and materials manager (Barkley, Major and Cross 2014: 2354-2378)[16]. If the task is carried out online, slightly different roles may be assigned, such as data gatherer, multimedia specialist, data manager, community manager, curator, and editor (Barkley, Major and Cross 2014: 2406-2458)[17]. To be meaningful, tasks need to perceived by students as instrumental in fostering professional development (Barkley, Major and Cross 2014: 532-536).

A wide array of collaborative learning techniques are available. Here, the description of some of those especially suited to the HyFlex model, such as word webs, Think-Pair-Share (and 1-2-3-4 All), Jigsaw, SCAMPER, and analytic teams, are illustrated. Collaborative learning is especially suited to fostering a sense of community by enhancing social presence in online and blended learning, which is pivotal in HyFlex courses.

Knowledge structures refer to the networked-type organization of topic-specific knowledge stored in the long-term memory through meaningful links; new information about the same topic is integrated into the networked prior knowledge through new meaningful linkages (Miller 2014: 99-101). Thus, to help students retrieve their prior knowledge about a topic and develop new knowledge structures actively, students can create collaboratively a visualization-based word web – as previously mentioned, visual imagery is especially suited to triggering recall – to wrap up a lesson:

16. "Facilitator[:] Moderates all team discussions, keeping the group on task for each assignment and ensuring that everybody assumes their share of the work. Facilitators strive to make sure that all group members have the opportunity to learn, to participate, and to earn the respect of the other group members. Recorder[:] Records any assigned team activities. Recorders take notes summarizing discussion, keep all necessary records (including data sheets such as attendance and homework check-offs), and complete worksheets or written assignments for submission to the instructor. Reporter[:]Serves as group spokesperson and orally summarizes the group's activities or conclusions. Reporters also assist the recorder with the preparation of reports and worksheets. Timekeeper[:] Keeps the group aware of time constraints, works with the facilitator to keep the group on task, and can also assume the role of any missing group member. The timekeeper is also responsible for any set-up and for ensuring that the team's work area is in good condition when the session ends. Materials Manager[:] If the instructor has created group work folders, the manager picks up the team folder, distributes all material other than data sheets, and returns all papers, assignments, or notes to team members. Materials managers ensure that all relevant class materials are in the folder at the end of the class session. Wildcard[:] Assumes the role of any missing member or fills in however needed" (Barkley, Major, and Cross 2014: 2363-2378).

17. "Data Gatherer: The individuals who scout out important information (from, e.g., data sets, journals, reports) necessary to complete the task. Multimedia Specialist: The individuals who collect new information, in the form of, for example, photos, recordings, and interviews. Data Manager: The individuals who make meaning of the information that has been collected. Community Manager: The individual who ensures that the work group is functioning appropriately and is meeting deadlines. Curator: The individual who manages the technology and ensures that it is working correctly and that information is being uploaded appropriately. Editor: The individual who is responsible for making sure that the final product, whether video, audio, or text, is produced cleanly and error free" (Barkley, Major, and Cross 2014: 2450-2458).

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Word Webs are collaborative versions of a Concept Map. A central word, phrase, or question placed on a shared writing space serves as the stimulus. Students generate a list of related ideas and then organize them in a graphic, identifying relationships by drawing lines or arrows to represent the connections. This technique helps students analyze a complex concept by breaking it down into component parts and clarifying the relationships. It is also an effective starting point, helping students relate new information to prior knowledge or guiding groups to uncover current understanding of the associations between parts. Word Webs help students organize facts and principles into meaningful conceptual networks and to represent virtually complex relationships that are difficult to understand from words alone (Barkley, Major and Cross 2014: 6913-6919).

In Think-Pair-Share, students first reflect individually for a few minutes on a problem[18] or a thought-provoking open-ended question (focusing on the analysis, evaluation, and creation levels of Bloom's revised taxonomy)[19] in order to come up with a response and/or a solution (Lyman 1981; Mills 1990; Barkley, Major and Cross 2014). Then, each student shares his/her response with a peer and negotiates a shared response or solution; afterwards, in a follow-up discussion, students share their socially constructed responses and/or solutions with the whole class (Lyman 1981; Mills 1990; Barkley, Major and Cross 2014). As a variation, in the third step, to further develop the ideas and/or solutions which emerged during the previous steps, each pair of students can be matched with another pair before sharing the highlights of the collaborative work with the entire class. This variation, called Think-Pair-Square (Lyman 1981) or more recently 1-2-3-4 All, is representative of Liberating Structures[20], which are highly engaging group work techniques:

18. "Problem solving questions […] intersect three areas: a learner's zone of proximal development, core concept development and complex, and customized learning" (Boettcher and Conrad 2010: 90).

19. "Good discussion questions are open and exploratory. They require learners to 'inquiry within' about what they currently believe and know and then to provide evidence to support their beliefs" (Boettcher and Conrad 2010: 88).

20. The 1-2-3-4 All activity is an example of Liberating Structures: "Instead of oscillating between too much control (Presentation), too little control (Open Discussion), and too centralized control (Managed Discussion), Liberating Structures distribute the control of content among all the participants so that they can shape direction together as the action unfolds. This liberates energy, unleashes participants' contributions, stimulates creativity, and reveals the group's latent intelligence. Liberating Structures are designed to transform the way people collaborate, how they learn, and how they discover solutions together. […] 1-2-3-4 All transforms discussion from a linear sequence of single contributions into a series of simultaneous conversations. This makes it possible to engage with the same amount of time groups much larger than what is feasible with a Managed Discussion; getting contributions as wide as diverse as an issue requires is to be expected. More broadly, shared ownership of codeveloped initiatives means simplified and faster implementation; there is less of a need to explain actions […] [and] convince others. […] Liberating Structures create lots of safe places that minimize power dynamics and encourage candid exchanges. They invite and facilitate the cocreation of both agendas and solutions" (Lipmanowicz and McCandless 2014).

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Liberating Structures are simple protocols that groups can use to organize how they work or learn together. Each protocol specifies five structural elements: (1) The structuring invitation such as a question to create a common focus; (2) Space arrangement, usually an open physical setting is required; (3) Participation distribution to ensure everyone has an equal chance to contribute, (4) Groups' configuration with different group sizes for different purposes, and (5) the sequence of steps and time allocation for effective execution (Lipmanowicz, Singhal, McCandless and Wang 2015: 234).

In the Think-Pair-Share structured collaborative activity, students' knowledge and language development are enhanced through reflection, language output, dialogical interaction, and negotiation. Think-Pair-Share is especially suitable for language development since the first step gives students time to think about the question provided and prepare the answer also in terms of language, which makes multilingual speakers more comfortable when sharing their ideas in pairs afterwards (Barkley, Major and Cross 2014: 4012-4013). The second step encourages pairs of students to analyze and compare different interpretations in order to come up with a shared solution; as in the previous step, students have time to construct in terms of language the answer to be shared afterwards in the third step (Barkley, Major and Cross 2014: 4013-4015). The activity can thus work well in preparing students effectively for a highly engaging whole class discussion (Barkley, Major and Cross 2014: 4012).

In Jigsaws, students work first in expert/focus groups (of about 5/6 people) to co-construct knowledge about a specific topic (each group focuses on a different subtopic related to the macro-topic of the activity) and to develop suitable strategies to teach the socially constructed knowledge to the other groups (Aronson and Patnoe 1997; Barkley 2009; Barkley, Major and Cross 2014; Nottingham, Nottingham and Renton 2016). In the following step, an expert from each focus group is joined by an expert from all the other groups. In these new groups, each expert teaches his/her peers the knowledge socially constructed in the previous groups; then, each group discusses and synthesizes the insights into new constructs and decides how to report the newly co-constructed knowledge in the following whole-class discussion. In the follow-up discussion, a student from each group reports the findings of his/her group to the whole class (Aronson and Patnoe 1997; Barkley 2009; Barkley, Major and Cross 2014; Nottingham, Nottingham and Renton 2016). In this context, students are encouraged to ask questions about the other groups' reports so as to come up with knowledge constructs which vary according to the task assignment (Aronson and Patnoe 1997; Barkley 2009; Barkley, Major and Cross 2014; Nottingham, Nottingham and Renton 2016).

Creativity is deeply connected to "originality, invention, and discovery, as well as divergent thinking about open-ended problems and flexible problem-solving in general" (Dornyei 2005: 203). SCAMPER, an activity suited to generating ideas in order to solve problems and/or improve existing and/or creating new processes/products, is an acronym which stands for Substitute,

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Combine, Adapt, Modify (Magnify/Minimize), Put to other uses, Eliminate and Reverse (Rearrange) (De Bono 2000; Eberle 1972, 2008; Mowat 2011):

The changes that SCAMPER stands for are:

- S: Substitute (e.g., components, materials, people);
- C: Combine (e.g., mix, combine with other assemblies or services, integrate);
- A: Adapt (e.g., alter, change function, use part of another element);
- M: Magnify/Modify (e.g., increase or reduce in scale, change shape, modify attributes);
- P: Put to other uses
- E: Eliminate (e.g., remove elements, simplify, reduce to core functionality);
- R: Rearrange/Reverse (e.g., turn inside out or upside down) (Serrat 2017: 312)[21].

During collaborative work, students can choose to enter the SCAMPER technique using the sub-technique/s (such as substitute, combine etc.) they consider most suitable; the various sub-techniques do not have to be applied in the sequence suggested by the acronym. For each sub-technique, students can use a set of questions as a guideline (Serrat 2017: 313):

Table 5: Help guide to use SCAMPER[22]

Substitute	Think about replacing part of the problem, product or process with something else. By looking for replacements you can often come up with new ideas. You can change things, places, procedures, people, ideas, and even emotions. Helper Questions Can I replace or change any parts? Can I replace someone involved? Can the rules be changed? Can I use other ingredients or materials? Can I use other processes or procedures? Can I change its shape? Can I change its color, roughness, sound or smell? What if I change its name? Can I substitute one part for another? Can I use this idea in a different place? Can I change my feelings or attitude towards it?

21. The S stands for Substitute, that is to have a person or thing act or serve in the place of another. Substituting may spark ideas or bring a new perspective to a person. […] The C […] is for the word Combine, that is to bring together or unite. […] The A […] is for adopt or adapt. To adopt is to make something your own, like a song, a pet, or a child. To adapt is to adjust for the purpose of suiting a condition or purpose such as the temperature in a room, clothing, or a car. […] The M […] stands for Modify. To modify is to alter, to change the form or quality of something. This can be done in one of two ways. The first is to magnify or to enlarge and make greater in form or quality. The second is to minify, that is to make smaller, lighter, slower, or less frequent. […] The P […] is to put something to other uses than the purpose it was originally intended for. […] The E […] is for eliminating, that is to remove, omit, or get rid of a quality. The question in eliminating is: "What are you doing that you could give up and not miss?. […] The final letter R is for Reverse or Rearrange. To reverse is to turn around. To rearrange is to change order of a plan, a layout or a scheme" (Gladding 2011: 5-6).

22. *litemind.com/scamper*.

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Combine Think about combining two or more parts of your problem to create a different product or process or to enhance their synergy. A great deal of creative thinking involves combining previously unrelated ideas, goods, or services to create something new.

Helper Questions

What ideas or parts can be combined? Can I combine or recombine its parts' purposes? Can I combine or merge it with other objects? What can be combined to maximize the number of uses? What materials could be combined? Can I combine different talents to improve it?

Adapt Think about adapting an existing idea to solve your problem. The solution of your problem is probably out there already. Bear in mind that all new ideas or inventions are borrowed to some degree.

Helper Questions

What else is like it? Is there something similar to it, but in a different context? Does the past offer any lessons with similar ideas? What other ideas does it suggest? What could I copy, borrow or steal? Whom could I emulate? What ideas could I incorporate? What processes can be adapted? What different contexts can I put my concept in? What ideas outside my field can I incorporate?

Magnify Think about ways to magnify or exaggerate your idea. Magnifying your idea or parts of it may increase its perceived value or give you new insights about what components are most important.

Helper Questions

What can be magnified or made larger? What can be exaggerated or overstated? What can be made higher, bigger or stronger? Can I increase its frequency? What can be duplicated? Can I make multiple copies? Can I add extra features or somehow add extra value?

Put to other uses Think of how you might be able to put your current idea to other uses, or think of what you could reuse from somewhere else in order to solve your own problem. Many times, an idea only becomes great when applied differently than first imagined.

Helper Questions

What else can it be used for? Can it be used by people other than those it was originally intended for? How would a child use it? An older person? How would people with different disabilities use it? Are there new ways to use it in its current shape or form? Are there other possible uses if it's modified? If I knew nothing about it, would I figure out the purpose of this idea? Can I use this idea in other markets or industries?

Eliminate Think of what might happen if you eliminated or minimized parts of your idea. Simplify, reduce or eliminate components. Through repeated trimming of ideas, objects, and processes, you can gradually narrow your challenge down to that part or function that is most important.

Helper Questions

How can I simplify it? What parts can be removed without altering its function? What's non-essential or unnecessary? Can the rules be eliminated? What if I made it smaller? What feature can I understate or omit? Should I split it into different parts? Can I compact or make it smaller?

Rearrange / Reverse	Think of what you would do if part of your problem, product or process worked in reverse or were done in a different order. Helper Questions What other arrangement might be better? Can I interchange components? Are there other patterns, layouts or sequences I can use? Can I transpose cause and effect? Can I change pace or change the schedule of delivery? Can I transpose positives and negatives? Should I turn it around? Up instead of down? Down instead of up? What if I consider it backwards? What if I try doing the exact opposite of what I originally intended?

To carry out the task, students can use an interactive graphic organizer, such as the one provided below, while working in groups in digital collaborative spaces:

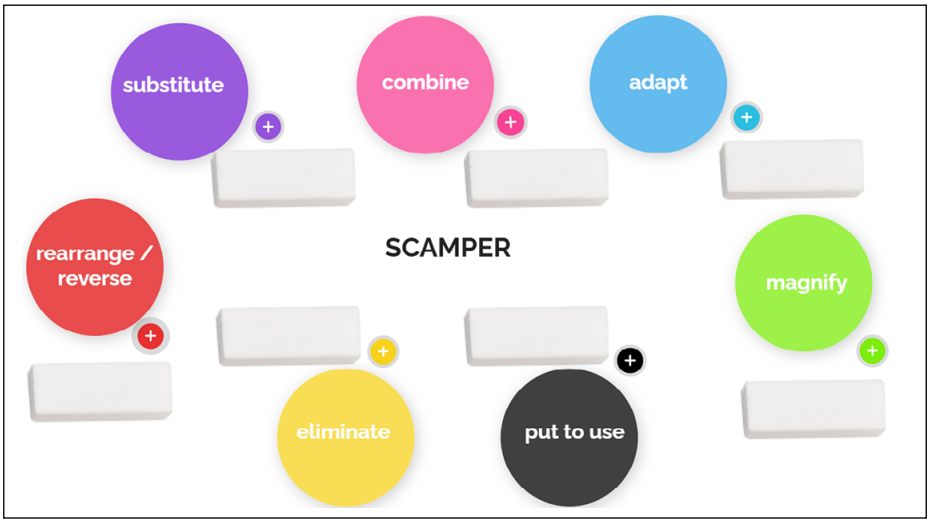

Figure 8: A visual organizer suited to scaffolding SCAMPER[23]

SCAMPER aims to foster students' creativity by enhancing divergent thinking through a collaborative structured approach (Scott, Leritz and Mumford 2004; Ozyaprak 2016). After collaboratively generating the ideas through SCAMPER, students need first to decide which ones to prioritize and then converge on a final solution/new process/new product; to this purpose, they can use visual organizers that can scaffold information classification, organization, and synthesis. SCAMPER has been successfully implemented to foster both content and language development (Ozyaprak 2016; Radziszewski

23. Other visual organizers suited to scaffolding SCAMPER are available here: *online.visual-paradigm.com/drive/#diagramlist:proj=0&new=SCAMPER*; *miro.com/templates/scamper*.

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2017; Ritter and Mostert 2018; Seidinejad and Nafissi 2018). Groups can share their final products/processes with the whole class in various ways, such as oral presentations, posters, infographics, videos etc.; to foster inclusion and cater for neurodiversity, instructors can let students choose the digital tools suitable for constructing their user-generated knowledge.

In analytic teams, each team member is assigned a role, which scaffolds students' active and equal contribution to the task, to be performed while listening to a lecture, watching a video, and/or reading a text critically (Barkley, Major and Cross 2014: 6110-6113). The activity aims to help students master critical analysis collaboratively by decreasing the cognitive load that critical analysis entails for each student; through analytical teams, the cognitive load is in fact socially distributed. Roles, which may vary according to the activity types and the disciplines – "It can be particularly effective when the teacher assigns roles that exist within the norms of the discipline" (Barkley, Major and Cross 2014: 6114-6115) –, have specific responsibilities:

> Connector[s:] […] relat[e] the assignment to previous knowledge or to the outside world. […] Proponents [:] List the points you agreed with and state why. Critics [:] List the points you disagreed with or found unhelpful and state why. Example Givers [:] Give examples of key concepts presented. Summarizers [:] Prepare a summary of the most important points (Barkley, Major and Cross 2014: 6125-6131).

After listening to a lecture, watching a video or reading a text, team members share their findings, discuss them, and decide how to present their co-constructed analysis to the rest of the class (Barkley, Major and Cross 2014: 6136-6137). Depending on the complexity of the assignment or the size of the class, groups can present their socially constructed analysis through oral presentations (using a visual support), posters, infographics or other modes (such as videos) (Barkley, Major and Cross 2014: 6139).

As mentioned above, analytic teams enable students to engage in critical thinking while listening to a lecture or watching a video. In this respect, it is important for instructors to devise multimodal presentations, such as Power Point presentations and/or videos, in keeping with Mayer's cognitive theory of multimedia learning, which adopts a constructivist view of learning (2009, 2014a, 2014c, 2014d). Multimedia learning draws on the assumption that, as previously mentioned, people can understand more thoroughly when they can create meaningful connections between images and words (Mayer 2014b: 5). A distinction between multimedia learning and multimedia instruction follows:

> Multimedia learning occurs when people build mental representations from words (such as spoken text or printed text) and pictures (such as illustrations, photos, animation, or video) […] [while] Multimedia instruction […] involves presenting words and pictures that are intended to promote learning. In short, multimedia instruction refers to designing multimedia presentations in ways that help people build mental representations (Mayer 2014b: 2-3).

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Mayer's cognitive theory of multimedia learning claims that people process information on the grounds of three main assumptions: the dual-channel assumption, the limited-capacity assumption, and the active-processing assumption (Mayer 2009, 2014a, 2014d). People process visual and auditory information using two different channels, i.e. the visual channel through which images and written text are processed and the auditory channel through which oral speech is processed (Mayer 2009, 2014a, 2014c, 2014d). As a result, humans can rely on various types of information and conceptualizations when they engage in deep learning (Mayer 2009, 2014a, 2014c, 2014d). The limited-capacity assumption holds that people can only process a certain amount of information at a time through each channel (Mayer 2009, 2014a, 2014c, 2014d); instructors thus need to bear in mind this piece of information when devising multimodal presentations as well as pre- and while-watching/listening activities. The active-processing assumption claims that people need to engage actively with the incoming information in order to learn new content (Mayer 2009, 2014a, 2014c, 2014d). In particular, people have to identify and select relevant information first, then organize the relevant information in a coherent way by creating meaningful connections between visual and verbal representations, and finally integrate the newly developed connections with their prior knowledge (Mayer 2009, 2014a, 2014c, 2014d).

Mayer's theory also focuses on the kinds of processing[24], namely extraneous, essential and generative processing, that people experience while engaged in multimedia instruction; as a result, instructors need to manage the three cognitive processes effectively when creating presentations and/or videos (2009, 2014a, 2014c, 2014d). Extraneous processing refers to the cognitive effort people make when focusing on information not necessary to understanding the core meaning of a message; when preparing PowerPoint presentations and/or videos, instructors thus need to reduce extraneous processing by excluding visual and/or verbal information which may distract students (Mayer 2009, 2014b, 2014c, 2014d). Essential and generative processing entail respectively "selecting relevant information and organizing it as presented in working memory; and […] making sense of the material by reorganizing it into a coherent structure and integrating it with relevant prior knowledge" (Mayer 2014d: 61). As a result, while designing multimodal instruction, instructors need to follow a series of research-based principles in order to decrease extraneous processing, manage essential processing, and enhance generative processing (Mayer 2009, 2014b, 2014c, 2014d). To decrease extraneous processing, instructors can apply the coherence, signaling, redundancy, spatial contiguity, and temporal contiguity principles (Mayer 2009, 2014b, 2014c, 2014d):

24. "Cognitive processing is the key to learning and includes attending to relevant incoming material, mentally organizing it into a coherent structure, and integrating it with relevant prior knowledge" (Mayer 2011: 3).

People learn better when extraneous material is excluded rather than included, when cues are added that highlight the organization of the essential material, when corresponding words and pictures are presented near rather than far from each other on the screen or page or in time, and people learn better from graphics and narration than from graphics, narration, and on-screen text (Mayer 2014b: 6).

To manage essential processing effectively, instructors can abide by the segmenting, pre-training, and modality principles:

People learn better when a multimedia message is presented in learned-paced segments rather than as a continuous unit, people learn better from a multimedia message when they know the names and characteristics of the main concepts, and people learn better from a multimedia message when the words are spoken rather than written (Mayer 2014b: 6).

In particular, the pre-training principle deems it essential to introduce the main features of key concepts before students delve into complex analyses: "The rationale is that pre-training allows students to focus on the causal connections in the multimedia explanation because they already know the names and characteristics of the key elements" (Mayer 2014d: 65). The pre-training principle can be successfully implemented through Flipped Learning, which introduces students to key concepts before they engage with a complex analysis of the content in class. Likewise, introducing key vocabulary items and/or key concepts before delivering their lectures, instructors enable students to construct the prior knowledge necessary to activate essential and generative processing effectively while listening to the lectures. The introduction of key vocabulary items and/or concepts before listening to lectures or before watching videos or before reading a text thus fosters an effective integration of top down and bottom up processing, which underpins successful comprehension processes in a foreign language (Benati 2020; VanPatten, Smith and Benati 2020).

Third, to promote generative processing, instructors can follow the personalization, voice, and image principles:

People learn better when the words of a multimedia presentation are in conversational style rather than formal style and when the words are spoken in a standard-accented human voice rather than a machine voice […]; but people do not necessarily learn better when the speaker's image is on the screen (Mayer 2014b: 6-7).

4.2.2. Flipped Learning and collaborative learning

Blended learning can be implemented using specific blended models and delivery types, such as Flipped Learning, which entail collaborative learning:

Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space

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is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter (Flipped Learning Network, 2014: 1).

In Flipped Learning, content delivery occurs out of class mainly through recorded lectures and/or video lessons that students watch before class (Bergmann and Sams 2012, 2014; Marshall 2014). Out-of-class work focuses on content that students can understand on their own through activities focusing on the lower levels of Bloom's revised taxonomy (Brinks Lockwood 2014; Webb and Doman 2016). During face-to-face or synchronous classes, instead, students engage in interactive collaborative tasks targeted at fostering a critical investigation of the concepts accessed previously through pre-class work (Bergmann and Sams 2012, 2014; Marshall 2014). As Marshall and Perris suggest, in Flipped Learning: "anything that can be processed without […] [the instructor's] immediate feedback and assessment can be placed out of class, while in class […] [the instructor] provide[s] activities that demand […] facilitation, ongoing informal feedback, and guidance" (2020: 24).

Flipped Learning is a student-centered model that enables learners to engage collaboratively in class with the concepts accessed out of class (Brinks Lockwood 2014, 2018). Out-of-class content delivery allows for more in-class time to be allocated to interactive collaborative activities promoting output, dialogical interaction, peer and group work, increased student engagement, increased time on task, extensive feedback, the use of higher-order thinking skills, and deeper learning (Gass, Behney and Plonsky 2013; Hsieh, Wu and Marek 2016; Galvez 2017; Voss and Kostka 2019). Likewise, fostering students' output, dialogical interaction, and negotiation of meaning, which are pivotal to both language development and knowledge co-construction (Vygoskty 1978; Swain 1985, 1995, 2000, 2006; Long 1983, 1996; Swain and Lapkin 1998; Lantolf 2000; Swain and Lapkin 2001; Lantolf and Thorne 2006; Swain and Suzuki 2008; Lantolf, Thorne and Poehner 2015), Flipped Learning is especially suited to promoting the development of foreign language proficiency, including academic English (Brinks Lockwood 2014; Marshal 2014; Egbert, Herman and Lee 2015; Kostka and Brinks Lockwood 2015; Bauer-Ramazani, Graney and Marshall 2016; Webb and Doman 2016; Kotska and Marshall 2017; deBoer 2018; Graney 2018; Voss and Kostka 2019).

Flipped Learning, especially suitable for higher education where more self-directed learning is likely to occur (Talbert 2017), is based on the four Pillars of F-L-I-P™: flexible environment, learning culture, intentional content, and professional educator (Flipped Learning Network 2014). In this respect, instructors need to create flexible environments that enable students to access content, develop deep learning, and demonstrate knowledge in multimodal formats while deciding autonomously where and how to engage with learning processes (Flipped Learning Network 2014; Bauer-Ramazani, Graney and

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Marshall 2016; Voss and Kostka 2019). Learning culture refers to a shift from teacher-controlled to learner-centered learning; during face-to-face and synchronous classes, deeper understanding is promoted through meaningful interactive collaborative activities (Flipped Learning Network 2014; Honeycutt and Garrett 2014; Bauer-Ramazani, Graney and Marshall 2016; Bauer-Ramazani, Graney and Marshall 2016; Voss and Kostka 2019). Instructors need to scaffold out- and in-class activities effectively (intentional content); to scaffold active learning and engagement successfully, instructors need thus to provide students with well-designed peer instruction, group work, problem solving, and other interactive collaborative tasks (Flipped Learning Network 2014; Bauer-Ramazani, Graney and Marshall 2016; Voss and Kostka 2019). Professional educators observe, monitor, and provide extensive formative assessment (individually and/or in groups) during face-to-face and synchronous classroom instruction; after class, instructors engage in reflective practice on their own or with other educators (Flipped Learning Network 2014; Bauer-Ramazani, Graney and Marshall 2016; Voss and Kostka 2019).

4.2.2.1. Peer Instruction

Peer Instruction, a method formulated by Mazur (1997) and considered a model of Flipped Learning, can be implemented in face-to-face, blended or fully online formats. Peer Instruction requires students' interaction with content in an asynchronous mode before class (Mazur 1997). Content delivery occurs out of class; in particular, before class, students engage with subject-specific materials and carry out comprehension activities, such as answering open-ended questions, taking (digital auto-scored) quizzes or annotating study materials (Mazur 1997, 2020).

Since content delivery takes place out of class, a lot of in-class time is freed up. Class time can thus focus on activities fostering students' active engagement with previously studied content. To this purpose, in face-to-face and synchronous classes, students can engage in instructor and/or student-led participatory interactive and collaborative activities (Kotska and Marshall 2017). In short, information transfer occurs asynchronously out of class while sense making occurs synchronously in class (Mazur 1997, 2020). For example, before class, in Perusall[25], a free text- and video-based social learning platform, students can annotate study materials (such as essays and/or videos) as a self-paced asynchronous activity; on the Perusall platform, students can insert their comments and comment on their peers' annotations (Mazur 2020). The use of Perusall for annotation seems to support the building of a learning community effectively (Adams and Wilson 2020). Through a 'confusion report', generated by the Perusall platform by means of customized algorithms, instructors can access the most commented topics and the most commonly asked questions.

25. *perusall.com*.

During instructor-led face-to-face and synchronous classes, instructors can thus focus on the topics which emerged as challenging for students. In particular, in Peer Instruction, face-to-face and live classes, targeted at conceptual understanding, follow a 7-step sequence:

1. Question posed (1 min).
2. Students given time to think (1 min).
3. Students record individual answers [*optional*]
4. Students convince their neighbors – peer instruction (1-2 min).
5. Students record revised answers [*optional*]
6. Feedback to teacher: Tally of answers
7. Explanation of correct answer (2+ min) (Mazur 1997: 10).

At the beginning of class, after briefly reviewing a concept which emerged as challenging in the Perusall-generated 'confusion report', the instructor asks students a conceptual question which students answer individually through a (digitally-enhanced) multiple choice question (Mazur 1997). Before answering the question and thus committing to it, students have some time to construct the knowledge necessary to provide the answer. Only the instructor can see the answers provided by the students; through the answers, the instructor can monitor students' knowledge development. After answering the question, students work in groups (in breakout rooms if working online) where they explain to their peers the reason why they picked their answers and negotiate their choices; students thus need to illustrate orally the theoretical tenets underpinning their choices and negotiate meaning with their group members. After group work, students are polled again and answer individually the same question they answered previously; they can decide to stick to their previous answer or change it. The instructor then displays the correct answer and explains why it is correct; the instructor can also encourage students who have given wrong answers to explain the reasoning behind their choices in order to clear up any doubts or misconceptions. Through Peer Instruction, instructors can thus foster students' active engagement, social interaction, and co-construction of knowledge.

Here it is important to mention that if after the first poll more than 70% of the class give the right answer, the instructor moves directly to the explanation of the answer (Mazur 2012). On the other hand, if between 30% and 70% of the class answer correctly, peer discussion (in breakout rooms) is regularly implemented, and a second poll and the explanation follow (Mazur 2012). If, instead, the correct answers are fewer than 30%, the instructor provides a brief review of the concept polled before students move to peer discussion; the second poll and the final explanation follow (Mazur 2012). In class, the 7-step sequence, which should last about fifteen minutes, is applied to each conceptual question targeted in the lesson; the teaching/learning cycle is thus usually repeated a few times during a two-hour face-to-face or synchronous class.

Studies show the effectiveness of peer instruction in general (Lasry, Mazur and Watkins 2008; Schell and Mazur, 2015) and its ability to foster active learning in particular (Crouch and Mazur 2001; Schell and Mazur, 2015; Vickrey *et al*. 2015) across disciplines (Draper and Brown 2004; Warkins and Mazur 2013). Furthermore, research shows that Peer Instruction works best when the 7-step procedure does not undergo any changes (Dancy, Henderson and Turpen 2015).

4.2.2.2. SOFLA (Synchronous Online Flipped Learning Approach)

In particular, SOFLA (Synchronous Online Flipped Learning Approach), a new model of online Flipped Learning (Marshall 2017; Marshall and Rodriguez-Buitrago 2017), seems suited to enhancing teaching presence in online instruction in keeping with the Community of Inquiry framework (Marshall and Kostka 2020: 4). In SOFLA, teaching presence is operationalized by carefully designing the various activities (including customized scaffolding), engaging students in collaborative learning through dialogical interaction, facilitating communication, and providing extensive formative assessment in and out of class (Marshall and Kostka 2020: 3-9). SOFLA, which includes both asynchronous and synchronous learning as part of an eight-step sequence, combines out-of-class work (targeted at content delivery) and in-class peer instruction: "(1) Pre-Work; (2) Sign-in Activity; (3) Whole Group Application; (4) Breakout Group Activities; (5) Share-out Time; (6) Preview and Discovery; (7) Assignment/Follow-up; and (8) Reflections" (Marshall 2020).

For Pre-Work, students can watch video lectures (such as pre-loaded video recordings or instructor-created videos) and answer course-customized (digital auto-scored) comprehension questions featuring formative assessment (Marshall and Rodriguez-Buitrago 2017; Marshall and Kostka 2020). Free digital tools, such as Ted-Ed[26], can be used to this purpose; instructors can use the answers provided to monitor students' understanding (Marshall and Rodriguez-Buitrago 2017; Marshall and Kostka 2020). Pre-Work activities can entail peer engagement (Bauer-Ramazani *et al*. 2016) as well as students' individual engagement with video and/or written materials using interactive platforms, such as Perusall and ActiveTextbook[27] (Marshall and Kostka 2020: 7). In Perusall and ActiveTextbook,

> Students highlight sections of the text that strike them and leave a comment or question. The other students can react, as in social media, with likes, replies, or other expressions of their views and feelings. This group activity thus becomes a conversation about the readings, and the teacher participates, guides, or responds, making the reading a social experience that includes all of the students and the teacher as well. This innovative way of engaging students while they read the same copy of the material is an example of

26. *ed.ted.com*.
27. *activetextbook.com*.

facilitating discourse, which is one of the three aspects of teaching presence (Garrison, 2016). Through technology, a solitary activity like reading can be combined with social media to create a new and enriched reading method for our times (Marshall and Kostka 2020: 7).

During face-to-face and synchronous classes, in the Sign-in activity, students share (on a whiteboard) the ideas developed during pre-class work; to this purpose, instructor-led whole-class brainstorming activities targeted at triggering students' prior knowledge are implemented (Marshall and Rodriguez-Buitrago 2017; Marshall and Kostka 2020). Students then engage in a whole-class collaborative activity. The Whole-Group Application is aimed at making learners apply the concepts developed in the pre-class activity (Marshall and Rodriguez-Buitrago 2017; Marshall and Kostka 2020): "[the] activity […] solidifies students' learning, clarifies what they may have missed in the pre-work, or applies what they have learned from the asynchronous work" (Marshall and Kostka 2020: 8). Afterwards, in groups (in breakout rooms if working online), students work collaboratively on a task (Breakout Group Activities) – groups can all work on the same task or on different tasks – to engage further, i.e. at the higher levels of Bloom's revised taxonomy, with the class content (Marshall and Rodriguez-Buitrago 2017; Marshall and Kostka 2020). Upon completion of the task, groups share the results with the whole class (in the main conference room space if working online) (Share-out Time) and provide peer feedback (Marshall and Rodriguez-Buitrago 2017). To provide effective peer feedback, students can use the Share, Help, Ask, Comment (SHAC) technique:

> Fethi (2015) […] developed a useful instrument […] that he terms Share, Help, Ask, Comment (SHAC). By giving students this simple acronym, which provides just enough structure, the teacher gives students a guide to peer feedback that is at once nonthreatening and likely to elicit high participation in the process (Fethi & Marshall, 2018). SHAC can be used easily online both synchronously, such as for the Share-Out step in SOFLA, and asynchronously, in interactive spaces such as blogs, wikis, and discussion forums (Marshall and Kostka 2020: 8).

The instructor then introduces the main ideas of the study materials assigned for the following lesson, prepares students for the activity, and provides some guidelines (Preview and Discovery) (Marshall 2020)[28]. Afterwards, the

28. "The underlying […] objective of Step 6 is priming students for their upcoming assigned work […]. Here, the teacher prepares material that will lead them to explore what is coming next, spark their curiosity, and identify gaps in understanding. To accomplish this goal, the teacher can pre-teach terms and concepts, activate students' prior knowledge, and build new schemata. Importantly, the teacher's task here is to introduce but not teach the material because direct instruction occurs in the pre-work for the next lesson in the cycle. The previewing of material in this step recalls the Explore-Flip-Apply model (Musallam, 2011) in which the students examine a problem, see the gaps in their knowledge required to solve it, and then become motivated to fill the knowledge gaps through the out-of-class work the teacher has planned" (Marshall and Kostka 2020: 8-9).

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instructor illustrates the assignment and provides the link to the assigned out-of-class activity (Assignment/Follow-up) (Marshall 2020). At the end of class, students share their takeaways writing short statements (on the whiteboard) (Reflections) (Marshall and Rodriguez-Buitrago 2017; Marshall and Kostka 2020).

4.3. Flexible course design for ETPs and an Open Pedagogy framework

Flexible courses for post-pandemic education can be designed using the ACE (Adaptability, Connection, Equity) Framework devised by Plymouth State University, USA, to scaffold decision-making at institution, course, and assignment levels:

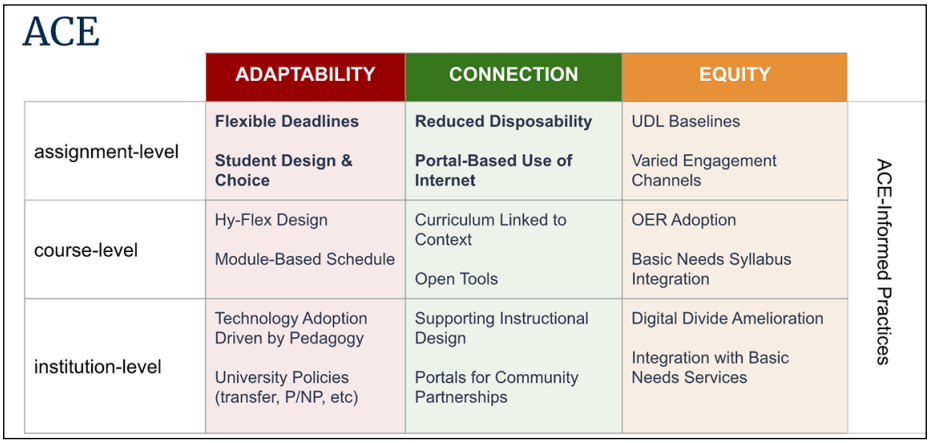

Figure 9: ACE-informed Framework (DeRosa 2020)

The Framework is especially suitable for designing post-Covid flexible context- and equity- driven courses[29]: "The ACE Framework […] is organized around three core pedagogical values – Adaptability, Connection, and Equity […] [and] three levels: assignment, course, and institution"[30]. The ACE Framework is available as an openly licenced educational resource so that institutions and instructors can adapt the matrix to their teaching contexts[31] worldwide. The present work focuses on the ACE-informed course- and

29. *colab.plymouthcreate.net/ace*.

30. *colab.plymouthcreate.net/covid19/join-us-ace-framework-curriculum-launches-to-facilitate-fall-planning*.

31. *colab.plymouthcreate.net/covid19/join-us-ace-framework-curriculum-launches-to-facilitate-fall-planning*.

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assignment-level practices adopted to devise a prototype of a HyFlex subject-specific course module suited to implementing virtual mobility in ETPs and catering to international and domestic students' multifarious needs in a post-pandemic context. In an ever-shifting post-Covid situation, students may in fact need to attend courses in person or online, choosing between a synchronous and an asynchronous online mode.

To design a prototype of a HyFlex course module for ETPs, at course level, HyFlex design and Module-Based Schedule have been adopted (Adaptability core pedagogical value), a curriculum linked to context and open tools has been used (Connection core pedagogical value), and open educational resources and open pedagogy have been employed (Equity core pedagogical value). At assignment level, space for student design and choice has been allocated along with some flexible deadlines (Adaptability core pedagogical value), internet-based activities and reduced disposability have been implemented (Connection core pedagogical value), and the availability of various engagement channels has been fostered to promote inclusion (Equity core pedagogical value).

In the prototype, at course level, a HyFlex module has been devised (Adaptability); thus, delivery modes suitable for in-class, synchronous, and asynchronous learners have been outlined, which represents an innovative practice for ETPs. In this context, it is important to mention that the ACE Framework makes a distinction between the term HiFlex, which refers to the pedagogical dimension of HyFlex courses, and the term HyFlex, which refers to the modality adopted to deliver content[32]. In keeping with this distinction, we will refer to the module devised as HyFlex while the various teaching strategies and activities formulated for the various delivery modes fall into the HiFlex category. 'The Course Planning Worksheet' created by Beatty[33], available as an openly licenced resource[34], has been adapted to outline the HyFlex course module; the adapted version is available as an openly licenced resource. Topics and assignments have been grouped in an organic and coherent way using a Module-Based Structure[35]. Various practices suitable for fostering the development of a cohesive group have been included, such as ice breakers, collaborative activities, instructor and peer formative assessment, and communication facilitation (Connection core value: Foster Classroom Community)[36]. Connection has been implemented through Curriculum linked to context; thus, current socio-economic events affecting students' life have been integrated into the course module[37], such as race and ethnicity, as increasingly

32. *colab.plymouthcreate.net/ace-practice/hy-flex-design*.
33. *Ibidem*.
34. CC-BY-SA-NC (*creativecommons.org/licenses/by-nc-sa/4.0/*).
35. *colab.plymouthcreate.net/ace-practice/module-schedule*.
36. *colab.plymouthcreate.net/ace-practice/community*.
37. *colab.plymouthcreate.net/ace-practice/curriculum-linked-context*.

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advocated (Kishimoto 2018; Arday *et al*. 2020). In keeping with a pedagogy of care, especially in times of crisis, it is important to acknowledge the socio-historical events students experience by integrating the events into the course; this practice can help learners reflect collaboratively on that reality while also contributing to community building[38]. In this respect, analyzing the course topics from a global superdiverse social justice perspective (Glynn, Wesely and Wassell 2014; Paris and Alim 2017) may be especially effective in ETPs. In particular, the ACE Framework suggests the virtual time capsule as a suitable assignment to implement Curriculum linked to context:

> The idea is to have students create a virtual "time capsule" about the major issues we are dealing with right now (such as Covid-19 and BLM). Have them think about how these issues intersect with the work of your class and then have them collect "artifacts" that they would want to share with someone in 25 years who was trying to understand this moment. Artifacts should probably all be digitally available (news articles, personal stories, artwork) and should relate to your field (news articles about criminal justice issues, personal stories about health care, artwork about the science of disease). You can have students work individually, in groups, or as class. Include a component where students think about how to present what they've collected and comment upon it as well[39].

At course level, Connection has also been fostered using digital tools available as Open Educational Resources (DeRosa 2020), including the text mining tools employed to carry out subject-specific language awareness. Equity has been implemented through the adoption of Open Educational Resources used as study materials (an open textbook has been adopted in the module) and to devise digitally-enhanced SFL-informed language awareness activities[40]; in particular, the activities have been created using an open textbook and digital tools available as Open Educational Resources. From an open pedagogy perspective, renewable assignments and assessment have been devised using OERs[41].

At assignment level, Adaptability has been implemented through student design and choice. The instructor often enables students to contribute to the design of artifacts, including the choice of the digital tools to be used; likewise, to contribute to inclusion, in the reflection phase (i.e. when students carry out the last activity during classroom instruction), students can often choose between various types of assignments to reflect on and show their learning[42]. Flexible deadlines are made available for an assignment; this practice can cater to

38. *Ibidem*.
39.*Ibidem*.
40. *colab.plymouthcreate.net/ace-practice/oer-adoption*.
41. *Ibidem*.
42. *colab.plymouthcreate.net/ace-practice/student-design-choice*.

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students' multifarious needs while promoting a pedagogy of care[43]. Connection has been fostered through reduced disposability (i.e. by providing students with authentic activities that enable learners to create knowledge useful outside of the class through practices that scholars and professionals carry out in their own fields[44]) as well as through renewable assignments and assessments, which are student-generated openly licenced artifacts made publicly available for everybody to use. The instructor has devised means to enable students to use the internet safely to carry out various activities, such as interacting on social media with professional communities and publishing renewable artifacts on a course customized website (Connection core value)[45]. Multimodal materials and activities are provided to foster equity and inclusion[46]. Inclusion has also been implemented by letting students choose the mode they prefer to represent their knowledge on certain occasions. Furthermore, to rethink fairness in a time of crisis, the instructor will increase formative assessment and/or redesign some assessment components on the basis of students' feedback[47].

4.3.1. A HyFlex course module for ETPs: a prototype

In this section, the prototype of a HyFlex subject-specific course module, suitable for implementing virtual mobility in ETPs while also catering to students' multifarious needs in a post-pandemic context, has been devised using a design for learning approach within a Community of Inquiry framework. The Hyflex module prototype provides an outline of how learning outcomes, including language learning outcomes, can be formulated from a global perspective and how various types of mainly collaborative activities can be implemented in a HyFlex learning environment. The HyFlex module has thus a dual objective, i.e. providing a flexible highly collaborative format for virtual mobility in ETPs while catering to students' needs for flexibility in a post-pandemic context. As previously mentioned, in a HyFlex module, students can decide their attendance mode.

43. *colab.plymouthcreate.net/ace-practice/flexible-deadlines*.

44. *colab.plymouthcreate.net/ace-practice/reduced-disposability*.

45. *colab.plymouthcreate.net/ace-practice/portal-internet*.

46. *colab.plymouthcreate.net/ace-practice/universal-design-for-learning-udl*.

47. Students' engagement with fairness can be promoted through custmized activities: "Build time into your course to explicitly discuss bias, objectivity/subjectivity, and fairness. Have students brainstorm the kinds of personal issues and challenges that could be impacting their work or commitment to a class (you do NOT need to ask students to disclose their own personal situations; in fact this could be an anonymous activity using Google Forms or a Google Doc). Rather than asking students to talk about individual issues/challenges that are identified (which could make them uncomfortable if it's an issue they relate to), in groups do a 15-20 minute Web hunt for a resource/video/article that speaks to the issue. Then have groups present what they've found and lead a short discussion. At the end, invite students to share how you could make assignments more equitable given the challenges they may be facing"; *colab.plymouthcreate.net/ace-practice/fairness*.

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In the HyFlex module prototype, Open Educational Resources (such as open textbooks and digital tools) have been used from an open pedagogy perspective; a Zero Textbook Cost (ZTC) HyFlex course module has thus been designed. In particular, chapter five, i.e. "Immigration and the Immigrant Experience", of the open textbook "Canadian History: Post-Confederation" (Belshaw 2016) has been adopted as the module study materials. Content learning outcomes suitable for an internationalized curriculum (Killick 2011; Jones and Killick 2013; Leask 2015) have been designed for the module; language learning outcomes, connected to SFL-informed text mining-driven language awareness, have also been provided.

An outline of how instructors can implement the various activities with in-class, synchronous, and asynchronous students has been devised as a guideline. In a HyFlex course, the learning materials and links for the activities are made available well in advance in the course LMS space. However, for certain activities, instructors can make resources available strategically through the conditional/adaptive release function which seems to be especially effective in self-regulated online learning environments (Fisher *et al*. 2015: 4): "Using this feature, a piece of content does not become available until the student meets a condition. […] Using conditional release […] can provide helpful structure and another point of engagement in online classes where students must direct much of their own learning" (Darby and Lang 2019: 35). Furthermore, since students are expected to carry out various renewable assignments, a course-customized website, where renewable assignments can be made available as openly licenced materials, needs to be created.

In the HyFlex course module prototype, the pre-class activities, which students carry out individually before class, are usually the same (except for deadlines) for in-class, synchronous and asynchronous learners. The activities implemented during in-class instruction are instead adapted to various degrees to synchronous and asynchronous learning in order for all learners to accomplish the module learning outcomes successfully and feel themselves members of a learning community.

In-class instruction usually includes: a digitally-enhanced brainstorming activity, targeted at activating students' prior knowledge on the topic of the lesson, that students attending face-to-face and synchronously carry out together; an activity targeted at introducing new vocabulary items and/or concepts; activities targeted at introducing, discussing, and analyzing the topic of the lesson; and a final reflection activity, aimed at getting students to reflect on the lesson takeaways, thereby fostering self-regulation. Furthermore, on the first day of the module and on the first lesson of each week, ice breakers have been included in the HyFlex module outline to enhance social presence and a sense of community. A large number of collaborative activities have been included in the prototype in keeping with open pedagogy, the Community of Inquiry framework (based on a socio-constructivist view of learning), and the findings which emerged in the two case studies presented previously in

this work[48]. Collaborative activities foster co-construction of knowledge, language development, student-generated artifacts, group cohesion, and social presence; active learning conducive to students' empowerment and ownership is thus consistently enhanced. In this light, the instructor works as a facilitator, designing activities, scaffolding students' engagement with content and peers, providing assessment and promoting communication while students engage in knowledge co-construction in the target language through highly scaffolded tasks. The HyFlex prototype module includes various types of Flipped Learning, such as Peer Instruction and SOFLA, introduced earlier in this work; jigsaws and analytic teams have also been included through a Flipped Learning approach. For collaborative learning in HyFlex live classes, in-class students need to have a digital device, such as a computer or a cell phone, and earphones to work in mixed pairs and/or groups, made up of in-class and synchronous students, comfortably in webconferencing spaces.

As previously mentioned, for ETP courses to foster language development effectively, students need to engage with course-customized language awareness. Besides being a crucial component of CLIL (Coyle, Hood and Marsh 2010; Coyle 2020), students' foreign language competence development is also a key dimension of an internationalized curriculum implemented through innovative digital pedagogical practices (Leask 2009, 2015; European Council 2017). The HyFlex module designed thus includes some of the digitally-enhanced SFL-informed subject-specific literacy activities developed in the present work[49]; the activities are mainly implemented through a mix of self-directed and collaborative learning, thereby fostering students' active learning. The digitally-enhanced SFL-informed subject-specific literacy activities aim to foster in particular students' critical language awareness along with subject-specific critical thinking in keeping with an SFL-informed approach, conceiving language as a context-sensitive socially constructed meaning-making process. Language awareness is envisioned within a culturally sensitive, relevant, and sustaining pedagogy framework that values and recognizes students' cultures (Paris 2012; Paris and Alim 2017) in line with SFL-informed practices and a superdiverse perspective. In keeping with CLIL tenets, language learning outcomes have been included in the HyFlex course module prototype, which is likely to sharpen students' perception of the added value of language development in a subject-specific course delivered in an additional language. In the HyFlex module prototype designed, students are expected to carry out digitally-enhanced SFL-informed language awareness in two lessons but disciplinary literacy development can be implemented more extensively in a module, through a mix of self-directed and collaborative activities, if instructors consider it effective for their students and especially if students have become familiar with this practice.

48. See chapter 1.
49. See chapter 3.

Although the prototype focuses only on one module of a course, an outline of how the instructor can introduce students to the HyFlex course follows. The practices suggested are instrumental in fostering social presence, trust- and relationship-building in a HyFlex course right from the start, as The Community of Inquiry suggests. In particular, about a week before the course starts, the instructor will send students a link to a short self-introductory video (of about 2/3 minutes) where the instructor introduces himself/herself, also sharing an anecdote to connect on a personal level with the students, while taking learners on a video tour of the place in which he/she works. In the self-introductory video, with the support of an infographic, the instructor will outline the course structure, such as course objectives, types of tasks and assessment, course weekly schedule, and how to get the most out of the course. The instructor will also communicate his/her office hours and contact information; furthermore, the instructor will encourage students to ask questions about the course in a general Q&A (Question and Answer) forum. In the video, the instructor will invite students to take part in an ice breaker activity and to upload a video to introduce themselves in a dedicated forum. To create the video, students will use the same format (provided as a template in the course LMS space) employed by the instructor; learners may thus show the place where they study and share an anecdote about themselves and/or other information that they consider relevant for their peers to get to know them. Furthermore, before the first face-to-face/synchronous class, students will carry out the ice breaker activity introduced in the instructor's introductory video. To this purpose, for example, on a Padlet noticeboard representing the world map, each student may be asked to insert a pin to indicate where he/she is physically located and then carry out the ice breaker which follows:

> Think of one word that best describes you or your life and pick a corresponding image. Then, insert a post on the Padlet noticeboard, write your first name, write the word you picked and describe why you chose that word; finally, upload the image you picked. Afterwards, read your colleagues' posts, find someone whose word you find especially meaningful for you or your life, and reply to that post writing why you picked it[50].

Familiarizing themselves with the roadmap of the course, thanks to the instructor's introductory video, students will navigate the course more easily; for the same reason, each week, the instructor will provide students with an overview of the upcoming classes. The overview can be in a written, video or graphic format. An example of a graphic weekly schedule template follows:

50. The activity has been created using the suggestions provided in *www.leveragingelearning.com/lelblog/6engagingicebreakersforonlinestudents*.

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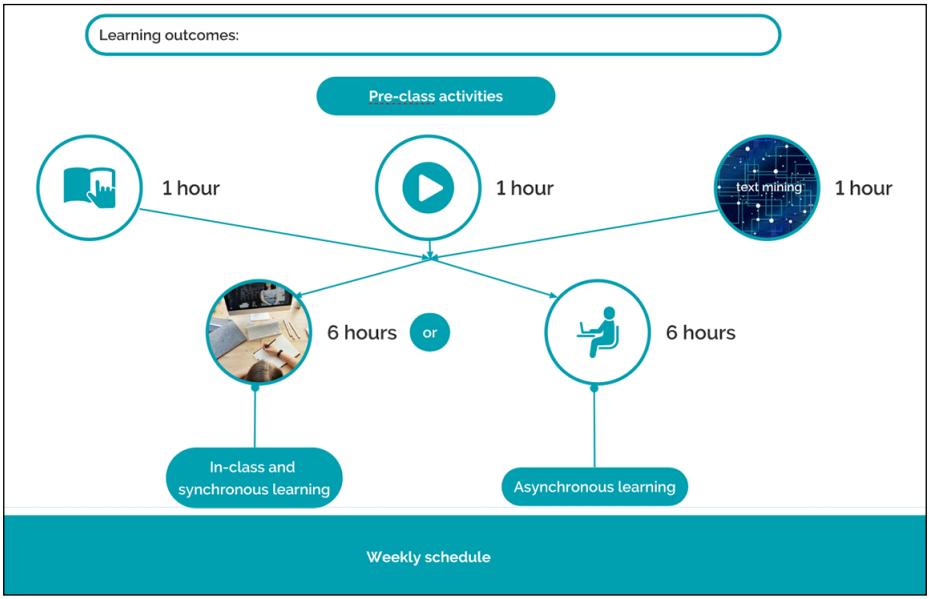

Figure 10: A weekly schedule template

Since online and blended classes are likely to rely heavily on text-based communication, which may be demotivating for students, instructors can opt for multimodal communication, including videos and storyboarding, to foster inclusion and equity (Darby and Lang 2019: 52). Furthermore, during the first week of the course, students will engage with an activity, such as a quiz, useful to make them familiarize themselves with the final course assignment (Darby and Lang 2019: 10-12).

The prototype of a HyFlex subject-specific course module for virtual mobility in ETPs, suitable for catering to students' post-pandemic needs, is made available. Only a module outline, i.e. the outline of a thematic section of a course, is provided as a guideline since the objective is to illustrate how a thematic group of lessons can be organized and implemented using a HyFlex mode. The strategies and practices outlined in the HyFlex course module can be extended to entire HyFlex courses. The prototype of a HyFlex course module suitable for virtual mobility in ETPs follows.

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Module title: Immigration in Post-Confederation Canada from a global perspective[51]

Module learning outcomes*

- Describe the main historical features of post-Confederation immigration, their impact on the local Canadian communities and the countries of origin of the immigrants.
- Analyze the timing of immigrant waves in relation to the Canadian and global socio-historical contexts.
- Explain the preferential or inhospitable treatment shown to select groups at different times on the basis of their ethnic characteristics, their global stereotypical representation, and their diverse cultural practices and languages.
- Identify the goals of immigration policy and the forces that led to changes in connection with the socio-economic-historical events in Canada and the immigrants' countries of origin.
- Assess the strategies employed by immigrant groups and communities to achieve success, to keep their diverse cultural practices and mother tongues, to keep a connection with their countries of origin, to interact with the host country communities effectively, to create diverse socio-cultural-linguistic environments in Canada.
- Identify, categorize, and illustrate the bias, stereotypical thinking, and prejudicial opinions underpinning the role played by racism and nativism in the history of immigration in Canada and its impact on the development of diverse ethnic communities locally.
- Identify, analyze, categorize, compare, and evaluate the most recurring language and content patterns of the texts studied.
- Infer, interpret, predict, and test the ideological perspectives underpinning the ideas conveyed in the texts through recurrent language and content patterns.
- Argue for an inclusive view of society by evaluating and synthesizing various international data sources collected to analyze a contemporary global event related to the topics of the module.
- Investigate further one of the topics of the module and generate a creative solution for the development of an inclusive (superdiverse) view of society by presenting critically reasoned and respectful arguments based on the Canadian and global socio-cultural-historical practices analyzed in the module.

Comments

- The module includes eleven units spread out over four weeks.
- Each in-class / synchronous class lasts two hours. Since in online learning a short pause is necessary during class, in each in-class / live class the activities (all together) are expected to last about 100 minutes.
- During in-class / live classes, synchronous learners interact with the instructor and peers through a web conference software (such as Zoom, Blackboard Collaborate etc.). In-class and synchronous students can access the web conference rooms on their PCs, tablets, or mobile phones.
- Asynchronous students carry out the activities in the course LMS space or other dedicated spaces. In asynchronous learning, the activities of each lesson are spread out over the whole week.
- For each unit, a Q&A forum is made available for students to ask questions to the instructor.
- In-class instruction is recorded and made available in the course LMS space for all students to watch.
- The learning materials, activities, and links for the various activities are available to students in the course LMS space.
- The links to the various activities are made available both in the course LSM space and in the chat of the web conference used.
- The pre-class activities are usually the same (except for deadlines) for in-class, synchronous, and asynchronous learners.
- Group formation: when self-selection is adopted, students decide their group members using a dedicated forum in the course LMS space; when groups are created by the instructor, the names of the various group members are posted in a dedicated forum.
- In the course LMS space, students can access a rubric useful to guide them to contribute to forum-based discussions effectively; a self-assessment rubric is also available to help students reflect on their contributions in discussion boards.
- Renewable assignments are made available on the course dedicated website.

* In this section, the learning outcomes devised for chapter five by Belshaw (2016: 258) have been modified in keeping with the internationalized curriculum tenets (Killick 2011; Jones and Killick 2013; Leask 2015).

51. The template of the HyFlex course module, which is an adapted version of 'The Course Planning Worksheet' created by Beatty, is licenced under CC BY-NC-SA 4.0.

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Week 1: Unit 1				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Study materials Digitally-enhanced SFL-informed language awareness activities focusing on the entire chapter five (see Activities: group A*) including the introduction and the conclusion (see Activities: group B*). **Activities** Students carry out individually digitally-enhanced SFL-informed language awareness activities focusing on the introduction and the conclusion as well as the entire chapter 5. The class is divided into groups; each group is assigned a different digitally-enhanced SFL-informed activity. Before class, each group shares the findings in a Mural-customized digital space whose link is made available in the course LMS space.	*Ice breaker activity* Students carry out the activity on a digital noticeboard (i.e. Padlet). Each student picks the picture, among those provided by the instructor on the noticeboard, which best represents how he/she feels at that moment in time and inserts a comment underneath the picture to explain the choice. (10 min) *Jigsaw* Stage 1: students who have carried out the same pre-class activity are grouped in expert/focus groups of about 5/6 people – each group, made up of in-class and synchronous learners, appoints a leader (if there are a lot of students in the class, it is possible to create various groups focusing on the same activities). The groups discuss and synthesize their findings first and decide how to share the information which emerged with the other students afterwards. Stage 2: students are regrouped in task groups made up of 5/6 in-class and synchronous learners. Each new group includes at least one 'expert' student from each original group (of stage 1).	*Ice breaker activity* Students carry out the activity on the same digital noticeboard (i.e. Padlet) used with in-class students. *Jigsaw* In stage 1 and 2, synchronous learners work together with in-class learners in breakout rooms. In stage 3, synchronous learners go back to the main virtual conference space.	*Ice breaker activity* Students carry out the activity on the digital noticeboard used by in-class and synchronous students. Due by Tuesday at 11.59 p.m.** *Jigsaw* Students carry out the jigsaw asynchronously in forum-based discussions. The jigsaw is implemented using the sequence outlined for in-class instruction. In each step, groups interact in dedicated forums and accomplish the step by specific deadlines: Stage 1: to be completed by Wednesday, 11.59 p.m. Stage 2: to be completed by Friday, 11. 59 p.m. Stage 3: to be completed by Saturday, 11.59 p.m.	**In-class and synchronous learning** During the face-to-face class, the instructor provides formative assessment orally to both in-class and synchronous students. **Asynchronous learning** The instructor provides written / audio / video formative assessment to each group after stage 3.

	In the new groups, students share the key aspects/findings of their original group discussion, learn from their peers' findings, synthesize the insights from all the groups, and then decide how to report during the following whole-class discussion. Stage 3: whole-class discussion. A student from each group reports the findings of his/her group; students are encouraged to ask questions about the other groups' findings to come up with a final shared outline of the analysis. (80 min) *Reflection*: individually, students post three takeaways on a digital noticeboard (i.e. Padlet), embedded in the course LMS. Students can: • write their takeaways; • post their takeaways through audios or videos; • design their takeaways; • represent their takeaways by uploading some (customized) images; • represent their takeaways through visual stories, such as storyboarding [*www.storyboardthat.com*]. (10 min)	*Reflection*: individually, students post three takeaways on a digital noticeboard (i.e. Padlet), embedded in the course LMS. Students can: • write their takeaways; • post their takeaways through audios or videos; • design their takeaways; • represent their takeaways by uploading some (customized) images; • represent their takeaways through visual stories, such as storyboarding.	*Reflection*: individually, students post three takeaways on a digital noticeboard (i.e. Padlet), embedded in the course LMS. Students can: • write their takeaways; • post their takeaways through audios or videos; • design their takeaways; • represent their takeaways by uploading some (customized) images; • represent their takeaways through visual stories, such as storyboarding. By Sunday, 11.59 p.m.	

* See chapter 3

** Since this is a Hyflex course module prototype and no course schedule is available, the deadlines are meant to be just general examples of how the activities of each lesson can be spread out over a week. Except for the Reflection activity, always scheduled by Sunday, 11.59 p.m., all the other activities are spread out from Monday to Saturday at 11.59 p.m.

Week 1: Unit 2				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Study materials 5.2 Immigration and the National Policy 5.3 Immigrants by the numbers **Activities** Students individually read the two texts assigned and answer some comprehension questions and one thought-provoking question in a discussion board in the LMS. Students also comment on two answers provided by their peers.	*Brainstorming activity* implemented with Mentimeter [*www.mentimeter.com*]. Students answer the questions individually. The instructor comments briefly on the results. (10 min) In pairs, in-class students carry out an automatically-scored matching activity, created with Google Forms, targeted at introducing key disciplinary concepts. (10 min) Mini-lecture (10 min) Students ask questions (10 min) Instructor checks students' understanding with a digital poll (10 min) *Think-Pair-Share* (40 min) The instructor provides students with a problem / scenario / thought-provoking open-ended question (made available on a slide) related to the mini-lecture delivered previously:	*Brainstorming activity* implemented with Mentimeter. Students answer the questions individually. The instructor comments briefly on the results. In pairs, in breakout rooms, synchronous students carry out an automatically-scored matching activity, created with Google Forms, targeted at introducing key disciplinary concepts. Students watch the instructor's mini-lecture. Students ask questions. Students answer the digital poll. *Think-Pair-Share* The instructor provides students with a problem / scenario / thought-provoking open-ended question (made available on a slide) related to the mini-lecture delivered previously:	*Brainstorming activity* implemented with Mentimeter. Students answer automatically-scored questions individually by Wednesday, 11.59 p.m. Individually, students carry out an automatically-scored matching activity, created with Google Forms, targeted at introducing key disciplinary concepts by Wednesday, 11.59 p.m. Students watch the recordings of the instructor's mini-lecture (the instructor can also pre-record and upload the lecture for asynchronous students) and answer the digital poll, that the other students have answered during the live class, whose link is made available in the course LMS space. Students ask questions to the instructor (if they have any) in a dedicated forum. by Wednesday, 11.59 p.m. *Think-Pair-Share* The instructor provides students with a problem / scenario / thought-provoking open-ended question (different from the one provided to in-class and synchronous students) related to the mini-lecture delivered:	**In-class and synchronous learning** During the face-to-face class, the instructor provides formative assessment orally to both in-class and synchronous students. **Asynchronous learning** The instructor provides written / audio / video formative assessment on group-generated artifacts.

	1. Think: students think individually how to address the problem / scenario / question provided 2. Pair: students in pairs (pairs can be made up of one in-class and one synchronous student) discuss the ideas they have come up with individually in the previous step and negotiate a shared solution. Learners use storyboarding or an infographic* to represent their ideas; students share the link to the storyboarding or the infographic devised in a dedicated forum in the course LMS. 3. Share: students share their findings/solution with the whole class using the visual representation devised in the previous step. *Reflection*: students carry out individually a digital automatically-scored quiz (10 min).	1. Think: in the main virtual conference space, students think individually how to address the problem / scenario / question provided 2. Pair: students in pairs (pairs can be made up of one in-class and one synchronous student working in breakout rooms) discuss the ideas they have come up with individually in the previous step and negotiate a shared solution. Learners use storyboarding or an infographic to present their ideas; students share the link to the storyboarding or the infographic devised in a dedicated forum in the course LMS. 3. Share: back in the main virtual conference space, students share their findings/solution with the whole class using the visual representation devised in the previous step. *Reflection*: students carry out individually a digital automatically-scored quiz.	1. Think: students think individually how to address the problem / scenario / question provided 2. Pair: in a dedicated forum, students in pairs discuss the ideas they have come up with individually in the previous step and negotiate a shared solution. They use storyboarding or an infographic to represent their ideas, by Thursday, 11.59 p.m. 3. Share: students share their findings/solution with the whole class in a dedicated forum by sharing the link to the storyboarding or the infographic devised, by Friday, 11.59 p.m. *Reflection*: students carry out individually a digital automatically-scored quiz by Sunday, 11.59 p.m.	

* Students can use the digital tools they prefer or choose between Genial.ly (*www.genial.ly/en*), beautiful.ai (*www.beautiful.ai*), Popplet (*www.popplet.com*), Online Visual Paradigm (*online.visual-paradigm.com*; *online.visual-paradigm.com/drive/#diagramlist:proj=0&new=Infographic*).

Week 1: Unit 3				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Study materials 5.4 The Clifford Sifton Years, 1896-1905 **Activities** Students read the assigned text individually and comment on Perusall. Students insert at least five comments and comment on at least two of their peers' comments before class.	*Brainstorming activity*: individually, students fill in one of the various sections of a customized digital mind map created with Mindmeister [*www.mindmeister.com*]. The instructor comments briefly on the results. (10 min) *Peer instruction* (the 7 steps are repeated to work on each concept targeted in class): 1. Question posed (5 min) 2. Students given time to think (3 min) 3. Students record individual answers through a digital poll devised with Google Forms (3 min) 4. In groups made up of in-class and synchronous learners, students try to convince their peers of their choice (10 min) 5. Students record revised answers through a new digital poll devised with Google Forms (3 min) 6. Feedback to instructor: Tally of answers (10 min) 7. Explanation of correct answer (6 min) (The 7-step sequence is implemented twice: 40 min.)	*Brainstorming activity*: individually, students fill in one of the various sections of the customized digital mind map created with Mindmeister and used in in-class instruction. The instructor comments briefly on the results. *Peer instruction*: 1. Question posed 2. Students given time to think 3. Students record individual answers through a digital poll devised with Google Forms 4. In breakout rooms, in groups made up of in-class and synchronous learners, students try to convince their peers of their choice 5. Students record revised answers through a new digital poll devised with Google Forms 6. Feedback to teacher: Tally of answers 7. Explanation of correct answer	*Brainstorming activity*: individually, students fill in one of the various sections of a customized digital mind map created with Mindmeister (a copy of the mind map used during in-class instruction is provided) by Wednesday, 11.59 p.m. *Peer instruction*: 1. Question posed by the instructor through a video presentation; the instructor provides asynchronous students with a question different from that asked during in-class instruction 2. Students given time to think 3. Students record individual answers through a digital poll devised with Google Forms by Wednesday, 11.59 p.m. 4. In dedicated forums, in groups, students try to convince their peers of their choice, by Thursday, 11.59 p.m. 5. Students record revised answers through a new digital poll devised with Google Forms by Friday, 11.59 p.m. 6. Students watch a video, which they can access only after completing step 5, where the instructor explains the correct answer by Saturday, 11.59 p.m.	**In-class and synchronous learning** During the face-to-face class, the instructor provides formative assessment orally to both in-class and synchronous students. **Asynchronous learning** The instructor provides written / audio / video formative assessment to the whole group after all students have watched the videos where the instructor explains the correct answer/s.

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	Reflection: Weekly journal. Individually, students write their reflections on the weekly classes by answering some guiding questions (i.e. a mix of closed- and open-ended questions) in a customized Google Form. (10 min)	*Reflection*: Weekly journal. Individually, students write their reflections on the weekly classes by answering some guiding questions (i.e. a mix of closed- and open-ended questions) in a customized Google Form.	*Reflection*: Weekly journal. Individually, students write their reflections on the weekly classes by answering some guiding questions (i.e. a mix of closed- and open-ended questions) in a customized Google Form by Sunday, 11.59 p.m.	
Week 1: Unit 4				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Study materials 5.5 The promised land 5.6 The Ukrainian Westerners **Activities** SOFLA* (1) Pre-Work Students watch a video where the instructor introduces key ideas on the topics assigned; while watching the video, students answer some comprehension questions. The instructor can devise the activity with Ted-Ed where he/she can upload the recording of the lecture, devise while-watching closed-ended and open-ended questions and monitor students' answers.	SOFLA – The following steps are implemented in class: (2) Sign-in Activity: through an instructor-led brainstorming activity, students share orally the ideas which emerged during the pre-class activity. (10 min) (3) Whole group application: instructor-led activity where students apply collaboratively the concepts presented in the pre-class activities. (10 min) (4) Breakout group activities: students work collaboratively on a task targeted at making them create new knowledge, which they represent through a multimodal learner-generated artifact (students choose the digital tool they want to use), by using the concepts analyzed thus far. (30 min)	SOFLA – The steps are implemented as follows: (2) Sign-in Activity: students share orally or on the whiteboard built in the virtual conference space the ideas which emerged during the pre-class activity. (3) Whole Group Application: synchronous students work together with in-class students and share orally or on the whiteboard built in the virtual conference space the info necessary to accomplish the task. (4) Breakout Group Activities: synchronous students can work with other synchronous students or with in-class students in breakout rooms. (5) Share-out Time: synchronous students work together with in-class students to share their ideas.	In the various stages, students carry out exactly the same activities implemented during in-class instruction. Instructions for the various stages are provided in dedicated forums: (2) Sign-in Activity: students carry out the activity in an asynchronous forum by Tuesday, 11.59 p.m. (3) Whole Group Application: students carry out the activity in an asynchronous forum by Wednesday, 11.59 p.m. (4) Breakout Group Activities: groups of asynchronous students carry out activities in dedicated forums by Thursday, 11.59 p.m. (5) Share-out Time: students share the breakout group activity findings in a dedicated forum by Saturday, 11.59 p.m.	**In-class and synchronous learning** During the face-to-face class, the instructor provides formative assessment orally to both in-class and synchronous students. **Asynchronous learning** The instructor provides written / audio / video formative assessment to the whole group after steps 5.

* "(1) Pre-Work; (2) Sign-in Activity; (3) Whole Group Application; (4) Breakout Group Activities; (5) Share-out Time; (6) Preview and Discovery; (7) Assignment/Follow-up; and (8) Reflections" (Marshall 2020).

	(5) Share-out Time: students share the results of the breakout group activity with the support of the multimodal artifact created. (20 min) (6) Preview and discovery: pre-work for the next lesson. (10 min) (7) Assignment / Follow up: the instructor illustrates the assigned activities. (10 min) (8) Reflections: students share orally – or on the whiteboard available in the virtual conference space – their takeaways. (10 min)	(6) Preview and Discovery: students watch the instructor's explanations and do the pre-work required in the main virtual space. (7) Assignment / Follow-up: students watch the instructor's explanations. (8) Reflections: students share orally – or on the whiteboard built in the virtual conference space – their session takeaways.	Students watch the recordings of steps 6 and 7: (6) Preview and Discovery; (7) Assignment / Follow-up by Saturday, 11.59 p.m. (8) Reflections: students carry out the activity in a forum by Sunday, 11.59 p.m.	
Week 2: Unit 5				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Study materials 5.7 Culture and adaptation **Activities** Students read and comment individually on panOpen the assigned text embedded in the platform. Students insert at least five comments and comment on at least two of their peers' comments before class.	*Brainstorming activity* implemented using Wooclap [*www.wooclap.com*]. Students answer the questions individually. The instructor comments briefly on the results. (10 min) Instructor's lecture (15 min) *Analytic teams*: students are divided into groups (in-class students work with in-class students) and each group member is given a role to be carried out while listening to the lecture.	*Brainstorming activity* implemented using Wooclap. Students answer the questions individually. The instructor comments briefly on the results. Instructor's lecture *Analytic teams*: students are divided into groups (synchronous students work with synchronous students) and each group member is given a role to be carried out while listening to the lecture.	*Brainstorming activity* implemented using Wooclap. Students answer automatically-scored questions individually by Tuesday, 11.59 p.m. Students watch the recording of the instructor's lecture (the instructor can also upload a pre-recorded lecture). *Analytic teams*: students are divided into groups and each group member is given a role to be carried out while watching the lecture.	**In-class and synchronous learning** During the face-to-face class, the instructor provides formative assessment orally to both in-class and synchronous students. **Asynchronous learning** The instructor provides written / audio / video formative assessment to each group commenting on their infographic/ storyboard.

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	Upon completion of the instructor's lecture, group members share and discuss their notes; then, they prepare an infographic or a storyboard to share their ideas with the whole class. Teams share their artifact in a dedicated forum in the course LMS space. (40 min) Groups illustrate their ideas with the graphic support of the infographic/storyboard created. (20 min) *Reflection*: Word Web activity that students carry out in small groups (different from those of the analytic teams; in-class and synchronous students work together) using a collaborative visual tool such as Bubble Diagrams*. Teams share their artifacts in a dedicated forum in the course LMS space. (15 min)	Upon completion of the instructor's lecture, group members share and discuss their notes in breakout rooms; besides, they prepare an infographic or a storyboard to share their ideas with the whole class. Teams share their artifact in a dedicated forum in the course LMS space. Groups illustrate their ideas with the graphic support of the infographic/storyboard created. *Reflection*: Word Web activity that students carry out in small groups (different from those of the analytic teams; in-class and synchronous students work together) using a collaborative visual tool such as Bubble Diagrams. Teams share their artifact in a dedicated forum in the course LMS space.	After watching the instructor's lecture, group members share and discuss their notes in a dedicated forum by Wednesday, 11.59 p.m. Groups prepare an infographic or a storyboard to share their ideas with the whole class. Groups share their infographic or storyboard in a dedicated forum by Friday, 11.59 p.m. Each student comments on two infographics/storyboards shared by the other groups by Saturday, 11.59 p.m. *Reflection*: students write their takeaways answering an open-ended question in a Google Form by Sunday, 11.59 p.m.	
Week 2: Unit 6				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Study materials Digitally-enhanced SFL-informed language awareness activities focusing on the subchapter 5.8 "Race, Ethnicity, and Immigration" (see Activities: group C)**	*Brainstorming activity*: in pairs, in-class students carry out the activity implemented using a digital noticeboard (i.e. Padlet). The instructor comments briefly on the results. (10 min)	*Brainstorming activity*: in pairs, in breakout rooms, synchronous students carry out the activity implemented using a digital noticeboard (i.e. Padlet); synchronous students work on the same digital noticeboard used in in-class instruction. The instructor comments briefly on the results.	*Brainstorming activity*: individually, students carry out the activity on the same digital noticeboard used for the face-to-face / live class by Tuesday, 11.59 p.m.	**In-class and synchronous learning** During the face-to-face class, the instructor provides formative assessment orally to both in-class and synchronous students.

* *online.visual-paradigm.com/drive/#diagramlist:proj=0&new=BubbleDiagram*.

** See chapter 3.

Activities In-class and synchronous learners carry out in pairs while asynchronous students carry out individually digitally-enhanced SFL-informed language awareness activities focusing on the subchapter 5.8 "Race, Ethnicity, and Immigration". The class is divided into groups; each group is assigned a different digitally-enhanced SFL-informed language awareness activity. Before class, each group shares the findings in a Mural-customized digital space whose link is available in the course LMS.	*Jigsaw* Stage 1: students who have carried out the same pre-class activity are grouped in expert/focus groups of about 5/6 people – each group, made up of in-class and synchronous learners, appoints a leader (if there are a lot of students in the class, it is possible to create various groups focusing on the same activities). The groups discuss and synthesize their findings first and decide how to share the information which emerged with the other students afterwards. Stage 2: students are regrouped in task groups made up of 5/6 in-class and synchronous learners. Each new group includes at least one 'expert' student from each original group (of stage 1). In the new groups, students share the key aspects/findings of their original group discussion, learn from their peers' findings, synthesize the insights from all the groups, and then decide how to report during the following whole-class discussion. Stage 3: whole-class discussion. A student from each group reports the findings of his/her group; students are encouraged to ask questions about the other groups' findings to come up with a final shared outline of the analysis. (80 min) *Reflection*: Weekly journal. Individually, students write their reflections on the weekly classes by answering some guiding questions (i.e. a mix of closed- and open-ended questions) in a customized Google Form. (10 min)	*Jigsaw* In stage 1 and 2, synchronous learners work together with in-class learners in breakout rooms. In stage 3, synchronous learners go back to the main virtual conference space. *Reflection*: Weekly journal. Individually, students write their reflections on the weekly classes by answering some guiding questions (i.e. a mix of closed- and open-ended questions) in a customized Google Form.	*Jigsaw* Students carry out the jigsaw asynchronously in forum-based discussions. The jigsaw is implemented using the sequence outlined for in-class instruction. In each step, groups interact in dedicated forums and accomplish the step by specific deadlines: Stage 1: to be completed by Wednesday, 11.59 p.m. Stage 2: to be completed by Friday, 11. 59 p.m. Stage 3: to be completed by Saturday, 11.59 p.m. *Reflection*: Weekly journal. Individually, students write their reflections on the weekly classes by answering some guiding questions (i.e. a mix of closed- and open-ended questions) in a customized Google Form by Sunday, 11.59 p.m.	**Asynchronous learning** The instructor provides written / audio / video formative assessment to each group after stage 3.

Week 2: Unit 7				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Study materials 5.8 Race, Ethnicity, and Immigration **Activities** Students read individually the text assigned and argue for and against a hypothesis on the topic provided by the instructor in Kialo [*www.kialo.com*], a free visualization-based platform suitable for enabling students to argue for and against a given hypothesis. Besides arguing for and against the hypothesis provided by the instructor, students need to comment (i.e. argue for and against) the ideas produced by at least two of their peers.	*Brainstorming activity* implemented with Mentimeter. Students answer the questions individually. The instructor comments briefly on the results. (10 min) Mini-lecture (10 min) Students ask questions (10 min) Mini-lecture (10 min) Students ask questions (10 min) *Group work*: in groups made up of in-class and synchronous students, students discuss some thought-provoking questions or carry out a problem solving task provided by the instructor. (20 min) Debrief of group work. (20 min) *Reflection*: One-minute writing. Individually, students write the main ideas which emerged during class in a customized Google Form. (10 min)	*Brainstorming activity* implemented with Mentimeter. Students answer the questions individually. The instructor comments briefly on the results. Students watch the instructor's mini-lecture Students ask questions Students watch the instructor's mini-lecture Students ask questions *Group work*: working in breakout rooms in groups made up of in-class and synchronous students, students discuss some thought-provoking questions or carry out a problem solving task. Debrief of group work in the main virtual conference space. *Reflection*: One-minute writing. Individually, students write the main ideas which emerged during class in a customized Google Form.	*Brainstorming activity* implemented with Mentimeter. Students answer automatically-scored questions individually by Tuesday, 11.59 p.m. Students watch the recordings of the instructor's mini-lectures (the instructor can pre-record the two mini-lectures and upload them) and ask questions in a dedicated forum by Wednesday, 11.59 p.m. *Group work*: in groups, students discuss some thought-provoking questions or carry out a problem solving task in a dedicated forum by Friday, 11.59 p.m. Each student comments on at least two answers provided by their peers by Saturday, 11.59 p.m. *Reflection*: One-minute writing. Individually, students write the main ideas which emerged during class in a customized Google Form by Sunday, 11.59 p.m.	**In-class and synchronous learning** During the face-to-face class, the instructor provides formative assessment orally to both in-class and synchronous students. **Asynchronous learning** The instructor provides written / audio / video formative assessment upon completion of the various steps. The instructor also synthesizes the ideas provided by the students.

* "With Kialo, discussions and debates are […] visualized as an interactive tree of pro and con arguments. At the top of every discussion is the thesis, which is supported or challenged by pro and con claims. Each one of these claims can in turn branch into subsequent claims that support or challenge them"; *www.kialo-edu.com*.

Week 3: Unit 8				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Study materials 5.9 Immigrants at war **Activities** Students read individually the text assigned and argue for and against a hypothesis on the topic provided by the instructor in Kialo, a free visualization-based platform suitable for enabling students to argue for and against a given hypothesis. Besides arguing for and against the hypothesis provided by the instructor, students need to comment (i.e. argue for and against) the ideas produced by at least two of their peers.	*Brainstorming activity* implemented using Wooclap. Students answer the questions individually. The instructor comments briefly on the results. (10 min) *Introduction of key concepts* through a digital automatically-scored matching activity, created with Educaplay, that students carry out in pairs; pairs are made up of in-class students. (10 min) The instructor delivers a 10-minute micro-lecture. During the lecture, students carry out individually while-watching activities, using Google Forms, provided by the instructor. (10 min) At the end of the lecture, the instructor checks students' comprehension activity in lockstep. (10 m) Students' questions (10 min) *1-2-3-4 All* The instructor provides students with a thought-provoking question, related to the micro-lecture delivered previously, that students have to discuss in the 1-2-3-4 All activity :	*Brainstorming activity* implemented using Wooclap. Students answer the questions individually. The instructor comments briefly on the results. *Introduction of key concepts* through a digital automatically-scored matching activity, created with Educaplay, that students carry out in pairs. Pairs are made up of synchronous students who work in breakout rooms. The instructor delivers a 10-minute micro-lecture. During the lecture, students carry out individually while-watching activities, using Google Forms, provided by the instructor. Students participate in the lockstep correction. Students' questions *1-2-3-4 All* The instructor provides students with a thought-provoking question, related to the micro-lecture delivered previously, that students have to discuss in the 1-2-3-4 All activity:	*Brainstorming activity* implemented using Wooclap. Students answer the automatically-scored questions individually by Tuesday, 11.59 p.m. *Introduction of key concepts* through a digital automatically-scored matching activity, created with Educaplay, that students carry out individually by Tuesday, 11.59 p.m. Students carry out while-watching activities using Google Forms while watching the recording of the instructor's lecture (instructors can also pre-record their lecture and upload it) by Wednesday, 11.59 p.m. By the same deadline, students can ask the instructor questions on the lecture if they have any. *Think-Pair-Share** The instructor provides students with a thought-provoking question, related to the micro-lecture delivered, that students have to discuss:	**In-class and synchronous learning** During the face-to-face class, the instructor provides formative assessment orally to both in-class and synchronous students. **Asynchronous students** The instructor provides students with written / audio / video formative assessment on the results of their group work.

* For asynchronous learning, Think-Pair-Share has been used instead of 1-2-3-4 All because it requires slightly less group work and thus fewer deadlines to abide by, which is more suitable for this type of students.

	1. students think individually how to answer the thought-provoking question (5 min) 2. in pairs (in-class and synchronous students can work together in breakout rooms), students share, compare, and develop further the ideas / solutions they have come up with in the previous step (10 min) 3. in groups of four (in-class and synchronous students can work together in breakout rooms), students share, compare, and develop further the ideas / solutions emerged during the previous step (10 min) 4. whole-class: all groups share the highlights of their collaborative work (15 min) *Reflection*: students can choose one of the following activities: • individually, students write their takeaways or post a podcast / video with their takeaways in a digital noticeboard (i.e. Padlet) embedded in the course LMS space; • individually, students tweet their takeaways. (10 min)	1. students think individually how to answer the thought-provoking question 2. in pairs (in-class and synchronous students can work together in breakout rooms), students share, compare, and develop further the ideas / solutions they have come up with in the previous step 3. in groups of four (in-class and synchronous students can work together in breakout rooms), students share, compare, and develop further the ideas / solutions which emerged during the previous step 4. whole-class (synchronous students go back to the main virtual conference room): all groups share the highlights of their collaborative work. *Reflection*: students can choose one of the following activities: • individually, students write their takeaways or post a podcast / video with their takeaways in a digital noticeboard (i.e. Padlet) embedded in the course LMS space; • individually, students tweet their takeaways.	• *Think*: students think individually how to answer the thought-provoking question • *Pair*: in pairs, students share, compare, and develop further, in a dedicated forum, the ideas / solutions they have come up with in the previous step by Thursday, 11.59 p.m. • *Share*: students share with the whole-class the highlights of their collaborative work either writing in a dedicated forum or sharing a video by Saturday, 11.59 p.m. *Reflection*: students can choose one of the following activities: • individually, students write their takeaways or post a podcast / video with their takeaways in a digital noticeboard (i.e. Padlet) embedded in the course LMS space; • individually, students tweet their takeaways. By Sunday, 11.59 p.m.	

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Week 3: Unit 9				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Study materials: 5.10 Female immigrants and the Canadian State, 1860s through the 20th century 5.11 Post-war immigration 5.12 The Chinese in Canada **Activities** Groups made up of in-class and synchronous students: students prepare a 3-minute presentation on one of the texts assigned (each group works only on one of the three subchapters assigned). Students choose the software they prefer to deliver their presentations (such as PowerPoint, Genially, beautiful.ai, Popplet etc.). Students upload their multimodal presentations in a dedicated forum in the course LMS space the day before class. Individually asynchronous students prepare a 3-minute video presentation on one of the texts assigned and upload their presentations in a dedicated forum in the course LMS space the day before class.	*Brainstorming activity*: in pairs, in-class students carry out the activity implemented using a digital noticeboard (i.e. Padlet). The instructor comments briefly on the results. (10 min) The first group makes the presentation (10 min) Students' questions follow (10 min) The second group makes the presentation (10 min) Students' questions follow (10 min) The third group* makes the presentation (10 min) Students' questions follow (10 min) *Pair work*. In pairs, in-class students create a digital mind map (with Popplet, Bubble Diagrams or other free software) to summarize the main ideas delivered about the three topics during the presentations. The mind maps will be made publicly available as openly licenced resources on the blog embedded in the course dedicated website. (10 min) In pairs, in-class students provide peer assessment on a mind map created by a pair of synchronous students using a rubric made available in the course LSM space. (10 min)	*Brainstorming activity*: in pairs, in breakout rooms, synchronous students carry out the activity implemented using a digital noticeboard (i.e. Padlet). The instructor comments briefly on the results. Like in-class students, synchronous students do the presentation with their groups, watch the other presentations, and ask questions. *Pair work*: in pairs, in breakout rooms, synchronous students create a digital mind map (with Popplet, Bubble Diagrams or other free software) to summarize the main ideas delivered during the presentations. The mind maps will be made publicly available as openly licenced resources on the blog embedded in the course dedicated website. In pairs, synchronous students provide peer assessment on a mind map created by a pair of in-class students using a rubric made available in the course LSM space.	*Brainstorming activity*: individually, students carry out the activity on the same digital noticeboard used for the face-to-face / live class by Tuesday, 11.59 p.m. Each student watches at least one presentation on each one of the three topics covered in the reading materials assigned. Then, each student creates a digital mind map (with Popplet, Bubble Diagrams or other free software) to summarize the main ideas expounded in the presentations watched by Thursday, 11.59 p.m. The mind maps will be made publicly available as openly licenced resources on the blog embedded in the course dedicated website Then, each student provides peer assessment on both a mind map created by a group of in-class and synchronous students and on a mind map created by an asynchronous student using a rubric available in the course LSM space by Saturday, 11.59 p.m.	**In-class and synchronous learning** During class, the instructor provides formative assessment orally after each presentation. **Asynchronous students** The instructor provides students with written / audio / video formative assessment on the brainstorming activity and their presentations made available in the LMS.

* If students need to be organized in more than three groups due to class size, the time allocated to each activity during the lesson will be modified accordingly.

	Reflection: Weekly journal. Individually, students write their reflections on the weekly classes by answering some guiding questions (i.e. a mix of closed- and open-ended questions) in a customized Google Form. (10 min)	*Reflection*: Weekly journal. Individually, students write their reflections on the weekly classes by answering some guiding questions (i.e. a mix of closed- and open-ended questions) in a customized Google Form.	*Reflection*: Weekly journal. Individually, students write their reflections on the weekly classes by answering some guiding questions (i.e. a mix of closed- and open-ended questions) in a customized Google Form by Sunday, 11.59 p.m.	
Week 4: Unit 10				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Students create a renewable assignment.	In class, groups work collaboratively on the task. In particular, students use the SCAMPER technique to carry out the assignment; to this purpose, they use either a Google Drive file or SCAMPER Visualization tools*, where in-class and synchronous students can collaborate in real time while asynchronous students can contribute asynchronously on the basis of the schedule devised by each group. *Reflection*: students tweet their takeaways. (10 min)	In class, groups work collaboratively in breakout rooms on the task. *Reflection*: students tweet their takeaways.	Students carry out the part/s of the activity they are responsible for. *Reflection*: students tweet their takeaways by Sunday, 11.59 p.m.	**In-class, synchronous, and asynchronous learning** During the face-to-face class, the instructor provides formative assessment orally to both in-class and synchronous students. The instructor will also provide formative assessment to each group's outline before it starts working on the project.
Activity guidelines The Curriculum linked to context (dimension of the ACE Framework) is implemented through a task carried out from a superdiverse perspective. In self-selected groups, students create a 5-minute video where they connect in a logical and critical way one of the topics of the module to how Covid-19 has affected immigration locally and globally; in the analysis, at least one foreign country needs to be included. Students also have to come up with suggestions on how to improve / modify / scaffold immigration to foster inclusion in the new challenging context investigated; to this purpose, students will use the SCAMPER technique, triggering creative thinking targeted at developing new processes. The 5-minute videos will be made available as openly licenced resources on the course dedicated website. Students will use the digital tools they prefer to create the learner-generated artifacts; if they want, they can use Genial.ly, beautiful.ai, Popplet, or Screencast-o-matic [*screencast-o-matic.com*].				

* *online.visual-paradigm.com/drive/#diagramlist:proj=0&new=SCAMPER*; *miro.com/templates/scamper*.

Group work: each group decides how to connect one of the topics of the module with the way Covid-19 has affected immigration locally and globally (at least one foreign country needs to be explicitly included in the analysis). Students decide the resources and tools they want to use. In the final multimodal artifact, a list indicating who contributed to what will be included.

Group formation: groups will be formed through self-selection by the end of week 2. Different types of students (in-class, synchronous, and asynchronous) can work together if they prefer. Groups need to organize effectively the work allocated to each group member autonomously. Each group will share an outline of who is going to do what and when with the whole class in a dedicated forum before starting to work on the task

Time on task: before Unit 10 in-class lesson, students decide what aspects to investigate in the task and the digital tools they want to use to create the final artifact. To make these decisions, groups can use customized discussion boards or web conferencing. During Unit 10 in-class lesson, in-class and synchronous students work collaboratively in groups to accomplish the task, which they can complete after class if necessary; if groups include asynchronous learners, they work on their subtasks as scheduled by the group.

After posting the link to their groups' artifacts on the course website blog, each student will assess the artifacts created by two other groups using a customized rubric made available in the course LMS space before students start working on the task; students can also use the rubric as a benchmark for task completion.

Deadlines:

- groups will upload the artifacts produced on the course website by the end of week 4.
- each student will carry out peer assessment by the end of week 5.

Week 4: Unit 11				
Online pre-class activities / Resources	**In-class Activities**	**Synchronous learning**	**Asynchronous learning**	**In-class / online Assessment**
List activities / required resources	List activities / required resources	List activities / required resources **Modification / Clarification for HyFlex Participation**	List activities / required resources **Modification / Clarification for HyFlex Participation**	In-class assessment & modifications for online delivery
Renewable assessment Students create a renewable assessment	In class, groups work collaboratively on the task. *Reflection*: students tweet their takeaways (10 min)	In class, groups work on the task collaboratively in breakout rooms. *Reflection*: students tweet their takeaways	Students carry out the part/s of the activity they are responsible for. *Reflection*: students tweet their takeaways by Sunday, 11.59 p.m.	**Formative assessment** The instructor provides students with oral / written / audio / video formative assessment on their project outline before each group starts working on the project. **Peer assessment** Upon publication of the artifacts, each student will assess another group's work using a digital interactive rubric available from the beginning of the module.

				Peer assessment will be carried out and made available to all groups in the course LMS space. **Summative assessment** The instructor will provide each group with summative assessment using a customized rubric made available to students (to browse and to use as a guideline to accomplish the task) at the end of week 2.

Activity guidelines

Group work: each group of students produces a 5-minute video and an infographic or storyboard to both evaluate critically, by investigating further, one of the topics analyzed in the module, and to generate a creative solution for the development of an inclusive view of society (to this purpose, students will use the SCAMPER technique). In particular, to evaluate the topic from a global and diverse perspective, each group needs to include and integrate effectively into the work at least one event / phenomenon / cultural practice (related to racial equity, gender equity, social justice) recently occurred or occurring internationally. Each multimodal artifact needs to include at least one thought-provoking question for future viewers and/or listeners and/or readers. Students can use the software they prefer to create the digital artifacts. A list indicating who contributed to what will be included in each artifact.

The learner-generated artifacts will be made publicly available for everybody to use as openly licenced resources on the dedicated course website.

Group formation: groups will be formed through self-selection by the end of week 3. Different types of students (in-class, synchronous, and asynchronous) can work together if they prefer. Groups need to organize effectively the work allocated to each group member autonomously.

Time on task: students start working on the task in class, collaboratively in groups, during Unit 11; students then complete the task working collaboratively synchronously or asynchronously out of class. To communicate asynchronously, students use group-dedicated forums in the course LMS space; to work synchronously, students can use the videoconference software they prefer. Before starting to create the various artifacts, each group shares with the instructor the outline of the project and the work breakdown structures on a Google Drive file or with a visualization tool*. Students can start producing the various artifacts soon after receiving the instructor's formative assessment of the project outline.

Peer assessment: each student will assess two artifacts created by other groups using a customized rubric made available in the course LMS space from the beginning of the module.

Deadline: students will negotiate the various task deadlines with the instructor by the end of week 2.

* *online.visual-paradigm.com/drive/#diagramlist:proj=0&new=WorkBreakdownStructureDiagram.*

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CONCLUSION

In the present work, a digitally-enhanced SFL-informed embedded disciplinary literacy framework for English-Taught Programs has been formulated from an open pedagogy perspective. The specific framework developed entails carrying out text analysis, targeted at implementing language awareness in ETPs, through text mining instrumental in fostering content-specific literacy by means of visualization. In line with a superdiverse view of a multilingual society and SFL-informed culturally sensitive practices, the SFL-informed content-specific embedded literacy framework aims to promote students' critical language awareness in ETPs, not least to prevent them from adopting implicit Anglo-English theorizing practices.

On the basis of the technology-enhanced SFL-informed disciplinary literacy framework devised, transformative digitally-enhanced language awareness activities have been created using text mining. Furthermore, the prototype of a HyFlex course module suitable for implementing virtual mobility in English-Taught Programs in a post-pandemic context has been developed, thereby providing, as Dafouz and Smit suggest, strategies suited to interconnecting local and global needs in increasingly multilingual contexts (2016: 408). The prototype includes digitally-enhanced SFL-informed embedded language awareness tasks and a wide array of collaborative tasks especially effective in online learning.

In line with EU guidelines, the prototype of a HyFlex course module devised aims to foster access (and thus equity) through the adoption and the creation of high-quality Open Educational Resources and Practices while at the same time promoting collaboration leading to the dissemination of OER-driven teaching practices and materials (Inamorato dos Santos 2019: 19-68). From an equity-driven perspective, which has emerged as an essential dimension of post-pandemic education, both the technology-enhanced SFL-informed content-specific literacy framework and the prototype of a HyFlex course module devised can be conceived as Open Educational Practices and OER-supportive infrastructures (Miller 2016: 237), promoting equity, inclusion, and active learning at local and global levels.

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The framework created is in keeping with the latest objectives of TELL (Technology Enhanced Language Learning) which promote the development of "pedagogical approaches to fostering online collaboration […] ensuring that students focus on meaning in interaction and on form" (Hampel 2020: 3049). It is noteworthy that the framework developed is also in keeping with EU policy which advocates the development of digital literacies and ecologies, the engagement of students with technology-enhanced activities while collaborating with distant stakeholders, and the adoption of Open Educational Resources (European Commission 2013b; Inamorato dos Santos 2019; European Commission 2020a).

 ISBN 9788835112129

REFERENCES

Achugar M., Carpenter B.D. (2018). "Critical SFL Praxis Principles in English Language Arts Education: Engaging Pre-service Teachers in Reflective Practice". In Ruth Harman (ed.). *Bilingual Learners and Social Equity. Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 91-108.

Adams B., Wilson N.S. (2020). "Building Community in Asynchronous Online Higher Education Courses through Collaborative Annotation". *Journal of Educational Technology Systems*, 49/2, 250-261. *doi:10.1177/0047239520946422*.

Allen I.E., Seaman J. (2010). "Class Differences: Online Education in the United States. Sloan Consortium". *files.eric.ed.gov/fulltext/ED529952.pdf*. Last accessed: 13/08/2020.

Adami E. (2017). "Multimodality". In Ofelia Garcìa, Nelson Flores and Massimiliano Spotti (eds.). *Oxford Handbook of Language and Society*. Oxford: Oxford University Press. 451-472.

Airey J. (2011a). "The Disciplinary Literacy Discussion Matrix: A Heuristic Tool for Initiating Collaboration in Higher Education". *Across the Disciplines*, 8/3, 2-9. *wac.colostate.edu/atd/clil/airey.cfm*. Last accessed: 20/07/2020.

Airey J. (2011b). "The Relationship between Teaching Language and Student Learning in Swedish University Physics". In Bent Preisler, Ida Klitgård and Anne H. Fabricius (eds.). *Language and Learning in the International University: From English Uniformity to Diversity and Hybridity*. Bristol, Buffalo: Multilingual Matters. 3-18.

Airey J. (2012). "'I don't teach language': The linguistic attitudes of physics lecturers in Sweden". *AILA Review*, 25/1, 64-79. *doi.org/10.1075/aila.25.05air*.

Airey J., Lauridsen K.M., Räsänen A., Salö L., Schwach V. (2017). "The Expansion of English-medium Instruction in the Nordic Countries. Can Top-down University Language Policies Encourage Bottom-up Disciplinary Literacy Goals?". *The International Journal of Higher Education Research*, 73/4, 561-576. *doi.org/10.1007/s10734-015-9950-2*.

Airey J. (2020). "The content lecturer and English-medium instruction (EMI): epilogue to the special issue on EMI in higher education". *International Journal of Bilingual Education and Bilingualism*, 23/3, 340-346. *doi:10.1080/13670050.2020.1732290*.

 ISBN 9788835112129

Allen P., Swain M., Harley B., Cummins J. (1990). "Aspects of classroom treatment: Toward a more comprehensive view of second language education". In Birgit Harley, Patrick Allen, Jim Cummins and Merrill Swain (eds.). *The Development of Second Language Proficiency*. Cambridge: Cambridge University Press. 57-81.

Al Zumor A.W.Q., Al Refaai I.K., Eddin E.A.B., Al-Rahman F.H.A. (2013). "EFL Students' Perceptions of a Blended Learning Environment: Advantages, Limitations and Suggestions for Improvement". *English Language Teaching*, 6/10, 95-110.

Ament J.R., Pérez-Vidal C. (2015). "Linguistic Outcomes of English Medium Instruction Programmes in Higher Education: A Study on Economics Undergraduates at a Catalan University". *Higher Learning Research Communications*, 5, 47-68.

Anderson L.W, Krathwohl D.R. (eds.) (2001). *A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman.

Anderson T. (2017). "How Communities of Inquiry drive teaching and learning in the digital age". *teachonline.ca/sites/default/files/tools-trends/insights/pdf/how_communities_of_inquiry_drive_teaching_and_learning_in_the_digital.pdf*. Last accessed: 25/07/2020.

Andersen T.H. (2017). "Interpersonal meaning and the clause". In Tom Bartlett and Gerard O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. New York and London: Routledge. 115-130.

Arday J., Belluigi D.Z., Thomas D. (2020). "Attempting to break the chain: Reimaging inclusive pedagogy and decolonising the curriculum within the academy". *Educational Philosophy and Theory*.

Aronson E., Patnoe S. (1997). *The Jigsaw Classroom: Building Cooperation in the Classroom*. New York: Longman.

Banks D. (2019). *A Systemic Functional Grammar of English*. New York and Abingdon: Routledge.

Bao W. (2020). "Covid-19 and online teaching in higher education: A case study of Peking University". *Human Behavior and Emergency Technologies*, 2/2, 113-115.

Baraniuk R., Finkbeiner N., Harris D., Nicholson D., Williamson D. (2017). "Free is Not Enough". In Rajiv S. Jhangiani and Robert Biswas-Diener (eds.). *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. London: Ubiquity Press. 219-226. *doi.org/10.5334/bbc.q*.

Barkley E.F. (2009). Student Engagement Techniques: A Handbook for College Faculty. San Francisco, CA: John Wiley & Sons.

Barkley E.E., Major H.C., Cross K.P. (2014). *Collaborative Learning Techniques: A Handbook for College Faculty*. San Francisco, CA: Jossey-Bass. Kindle Edition.

Bartlett T., O'Grady G. (2017). "Introduction. Reading systemic functional linguistics". In Tom Bartlett and Gerard O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. New York and London: Routledge. 1-8.

Bartolomé A., Castañeda L., Adell J. (2018). "Personalisation in educational technology: The absence of underlying pedagogies". International Journal of Educational Technology in Higher Education, *15/14*, 1-17. *doi.org/10.1186/s41239-018-0095-0*.

 ISBN 9788835112129

Bates T. (2016). *The 10 Fundamentals of Teaching Online for Faculty and Instructors*. Contact North. *teachonline.ca/sites/default/files/pdfs/the_10_fundamentals_of_teaching_online_for_faculty_and_instructors_-_september_2016.pdf*. Last accessed: 13/08/2020.

Bauer-Ramazani C., Graney J.M., Marshall H.W., Sabieh C. (2016). "Flipped learning in TESOL: Definitions, approaches and implementation". *TESOL Journal*, 7/2, 429-437.

Bean J.C. (1996). *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking and Active Learning in the Classroom*. San Francisco, CA: Jossey-Bass.

Beatty B.J. (2007). "Transitioning to an Online World: Using HyFlex Courses to Bridge the Gap". In Proceedings of the *ED-MEDIA 2007 World Conference on Educational Multimedia, Hypermedia and Telecommunications*, Vancouver, Canada.

Beatty B. (2014). "Hybrid Courses with Flexible Participation: The HyFlex Course Design". In L. Kyei-Blankson and E. Ntuli (eds.). *Practical Applications and Experiences in K-20 Blended Learning Environments*. Hershey, PA: IGI Global. 153-177. *doi:10.4018/978-1-4666-4912-5.ch011*.

Beatty B.J. (2019a). "Values and Principles of Hybrid-Flexible Course Design". In Brian J. Beatty (ed.). *Hybrid-Flexible Course Design*. EdTech Books. 31-34. *edtechbooks.org/hyflex/Acknowledge*. Last accessed: 17/08/2020.

Beatty B.J. (2019b). "Welcome to Hybrid-Flexible Course Design!". In Brian J. Beatty (ed.). *Hybrid-Flexible Course Design*. EdTech Books. 6-8. *edtechbooks.org/hyflex/Acknowledge*. Last accessed: 18/08/2020.

Beatty B. (2020). "The Course Planning Worksheet". *colab.plymouthcreate.net/ace-practice/hy-flex-design*. Last accessed: 13/08/2020.

Beaumont B. (2020). "Identifying In-Service Support for Lecturers Working in English Medium Instruction Contexts". In M.L. Carrió-Pastor (ed.). *Internationalising Learning in Higher Education. The Challenges of English as a Medium of Instruction*. Singapore: Springer. 83-110.

Beelen J., Jones E. (2015). "Redefining Internationalization at Home". In Adrian Curaj, Liviu Matei, Remus Pricopie, Jamil Salmi and Peter Scott (eds.). *The European Higher Education Area. Between Critical Reflections and Future Policies*. London: Springer. 59-72. *doi.org/10.1007/978-3-319-20877-0*.

Beetham H., Falconer I., McGill L., Littlejohn A. (2012). "Open practices: briefing paper". *JISC*. *oersynth.pbworks.com/w/page/51668352/OpenPracticesBriefing*. Last accessed: 29/06/2020.

Beichner R.J., Saul J., Abbott D., Morse J., Deardorff D., Allain R., Risley J. (2007). "Student-Centered Activities for Large Enrollment Undergraduate Programs (SCALE-UP) project". In Edward Redish and Pat Cooney (eds.). Research-Based Reform of University Physics. College Park, MD: American Association of Physics Teachers. 1-42.

Belshaw J.D. (2016). "Canadian History: Post-Confederation". BC Campus. *opentextbc.ca/postconfederation*. Last accessed: 20/07/2020.

Benati A.G. (2020). *Key Questions in Language Teaching. An Introduction*. Cambridge: Cambridge University Press.

 ISBN 9788835112129

Bennett K. (2015). "The transparency trope: Deconstructing English academic discourse". *Discourse and Interaction*, 8/2, 5-19.
Bentley Y., Selassie H., Parkin E. (2012). "Evaluation of a global blended learning MBA programme". *The International Journal of Management Education*, 10/2, 5-87.
Bergmann J., Sams A. (2012). *Flip your Classroom: Reach Every Student in Every Class Every Day*. Alexandria, VA: Association for Supervision and Curriculum Development.
Bergmann J., Sams A. (2014). "Flipping for mastery". *Educational Leadership*, 71/4, 24-29.
Bernard R.M., Borokhovski E., Schmid R.F., Tamim R.M., Abrami P.C. (2014). "A meta-analysis of blended learning and technology use in higher education: From the general to the applied". *Journal of Computing in Higher Education*, 26/1, 87-122. *doi:10.1007/s12528-013-9077-3*.
Berry M. (2017). "Stratum, delicacy, realisation and rank". In Tom Bartlett and Gerard O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. New York and London: Routledge. 42-55.
Biber D., Conrad S., Leech G. (2002). *Longman Student Grammar of Spoken and Written English*. Harlow: Longman.
Biber D., Gray B. (2016). *Grammatical Complexity in Academic English: Linguistic Change in Writing*. Cambridge: Cambridge University Press.
Bidder C., Mogindol S.H., Saibin T.C., Andrew S.A., Naharu N. (2016). "Students' Perceptions of Blended Learning and Achievement". In J. Luaran, J. Sardi, A. Aziz and N. Alias (eds.). *Envisioning the Future of Online Learning*. Springer, Singapore. *doi.org/10.1007/978-981-10-0954-9_19*.
Biesta G. (2009). "Good education in an age of measurement: On the need to reconnect with the question of purpose in education". Educational Assessment, Evaluation and Accountability, *21*/1, 33-46. *doi.org/10.1007/s11092-008-9064-9*.
Biggs J. (2003). *Teaching for Quality Learning at University – What the Student Does*. Buckingham: SRHE / Open University Press.
Biglan A. (1973). "Relationships between subject matter characteristics and the structure and output of university departments". *Journal of Applied Psychology*, 57/3, 204-213.
Blei D.M. (2012). "Probabilistic topic models". *Communications of the ACM*, 55, 77-84.
Blei D.M., Ng A.Y., Jordan M.I. (2003). "Latent Dirichlet allocation". *Journal of Machine Learning Research*, 3, 993-1022.
Blessinger P., Bliss T.J. (2016). "Preface". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 1-9.
Bliss T., Hilton J., Wiley D., Thanos K. (2013). "The cost and quality of open textbooks: Perceptions of community college faculty and students". *First Monday*, 18/1. *doi.org/10.5210/fm.v18i1.3972*.
Bliss T., Robinson T.J., Hilton J.III, Wiley D. (2013). "An OER COUP: College teacher

and student perceptions of open educational resources". *Journal of Interactive Media in Education*, 17/1, 1-25. *dx.doi.org/10.5334/2013-04*.
Boettcher J.V., Conrad R.M. (2010). *The Online Teaching Survival Guide: Simple and Practical Pedagogical Tips*. San Francisco, CA: Jossey-Bass.
Boelens R., De Wever B., Voet M. (2017). "Four key challenges to the design of blended learning: A systematic literature review". *Educational Research Review*, 22, 1-18. *doi:10.1016/j.edurev.2017.06.001*.
Boelens R., Van Laer S., De Wever B., Elen J. (2015). "Blended learning in adult education: towards a definition of blended learning". *Adult Learners Online! Blended and Online Learning in Adult Education and Training*. *hdl.handle.net/1854/LU-6905076*. Last accessed: 13/08/2020.
Boettcher J.V., Conrad R.M. (2016). *The Online Teaching Survival Guide: Simple and Practical Pedagogical Tips*. San Francisco, CA: Jossey-Bass.
Bond B. (2020). *Making Language Visible in the University*. Bristol: Multilingual Matters.
Borkin M.A., Bylinskii Z., Kim N.W., Bainbridge C.M., Yeh C.S., Borkin D., Pfister H., Oliva A. (2016). "Beyond Memorability: Visualization Recognition and Recall". *IEEE Transactions on Visualization and Computer Graphics*, 22/1, 519-528.
Borkin M.A., Vo A.A., Bylinskii Z., Isola P., Sunkavalli S., Oliva A., Pfister H. (2013). "What Makes a Visualization Memorable?". *IEEE Transactions on Visualization and Computer Graphics*, 19/12, 2306-2315.
Boyd-Graber J., Mimno D., Newman D. (2014). "Care and feeding of topic models: Problems, diagnostics and improvements". In E. Airoldi, D. Blei, E. Erosheva and S.E. Fienberg (eds.). *Handbook of Mixed Membership Models and Their Applications*. Boca Raton, FL: CRC Press. 3-41.
Bozkurt A., Jung I., Xiao J., Vladimirschi V., Schuwer R., Egorov G., Lambert S.R., Al-Frei M., Pete J., Olcott D., Rodes V., Aranciaga I., Bali M., Alvarez A.V., Roberts J., Pazurek A., Raffaghelli J.E., Panagiotou N., de Coëtlogon P., Shahadu S., Brown M., Asino T.I., Tumwesige J., Ramírez Reyes T., Barrios Ipenza E., Ossiannilsson E., Bond M., Belhamel K., Irvine V., Sharma R.C., Adam T., Janssen B., Sklyarova T., Olcott N., Ambrosino A., Lazou C., Mocquet B., Mano M., Paskevicius M. (2020). "A global outlook to the interruption of education due to Covid-19 Pandemic: Navigating in a time of uncertainty and crisis". *Asian Journal of Distance Education*, 15/1, 1-126.
Bozkurt A., Sharma R.C. (2020). "Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic". *Asian Journal of Distance Education*, 15/1, i-vi. *doi.org/10.5281/zenodo.3778083*.
Bowcher W.L. (2017). "Field, tenor and mode". In Tom Bartlett and Gerard O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. New York and London: Routledge. 391-403.
Bradford A., Brown H.G. (2017). "ROAD-MAPPING English-medium instruction in Japan". In Annette Bradford and Howard G. Brown (eds.). *English-Medium Instruction in Japanese Higher Education: Policy, Challenges and Outcomes*. Bristol, UK: Multilingual Matters. 3-13.

Brezina V. (2018). *Statistics in Corpus Linguistics: A Practical Guide*. Cambridge: Cambridge University Press.
Brinks Lockwood R. (2014). *Flip it! Strategies for the ESL classroom*. Ann Arbor, MI: University of Michigan Press.
Brinks Lockwood R. (2018). *Flipping the Classroom: What Every ESL Teacher Needs to Know*. University of Michigan Press.
Brisk M.E., Ossa Parra M. (2018). "Mainstream Classrooms as Engaging Spaces for Emergent Bilinguals: SFL Theory, Catalyst for Change". In Ruth Harman (ed.). *Bilingual Learners and Social Equity. Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 127-151.
Burgess M. (2017). "The BC Open Textbook Project". In Rajiv S. Jhangiani and Robert Biswas-Diener (eds.). *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. London: Ubiquity Press. 227-236. *doi.org/10.5334/bbc.r*. Last accessed: 13/08/2020.
Butcher N., Hoosen S. (2014). "How openness impacts on higher education". Moscow: UNESCO Institute for Information Technologies in Education. *iite.unesco.org/pics/publications/en/files/3214734.pdf*. Last accessed: 13/08/2020.
Byrnes H. (2009). "Emergent L2 German Writing Ability in a Curricular Context: A Longitudinal Study of Grammatical Metaphor". *Linguistics and Education*, 20, 50-66.
Byrnes H. (2011). "Beyond Writing as Language Learning or Content Learning: Construing Foreign Language Writing as Meaning-Making". In Rosa M. Manchón (ed.), *Learning-to-Write and Writing-to-Learn in an Additional Language*. Amsterdam: John Benjamins. 133-157.
Byrnes H. (2012). "Conceptualizing FL Writing Development in Collegiate Settings: A Genre-based Systemic Functional Linguistic Approach". In Rosa M. Manchón (ed.), *L2 Writing Development: Multiple Perspectives*. Berlin: De Gruyter Mouton. 190-218.
Byrnes H. (2014). "Linking Task and Writing for Language Development: Evidence from a Genre-based Curricular Approach". In Heidi Byrnes and Rosa M. Manchón (eds.), *Task-Based Language Learning: Insights from and for L2 Writing*. Amsterdam: John Benjamins. 235-261.
Byrnes H. (2017). "Meeting the Challenge of Instructed Language Development: Reflections on Systemic Functional Contributions". In Stella Neumann, Rebekah Wegener, Jennifer Fest, Paula Niemietz and Nicole Hützen (eds.), *Challenging Boundaries in Linguistics: Systemic Functional Perspectives*. Frankfurt am Main: Peter Lang. 457-491.
Byrnes H. (2019). "Applying SFL for Understanding and Fostering Instructed Second Language Development". In Geoff Thompson, Wendy L. Bowcher, Lise Fontaine and David Schönthal (eds.), *The Cambridge Handbook of Systemic Functional Linguistics*. Cambridge: Cambridge University Press. 512-535.
Cahapay M.B. (2020). "Rethinking Education in the New Normal Post-Covid-19 Era: A Curriculum Studies Perspective". *Aquademia*, 4/2, 1-5. *doi.org/10.29333/aquademia/8315*.

 ISBN 9788835112129

Cao W., Fang. Z, Hou G., Han M., Xu X., Dong J., Zheng J. (2020). "The Psychological Impact of the Covid-19 Epidemic on College Students in China". *National Library of Medicine*, 112934. *doi:10.1016/j.psychres.2020.112934*.

Caplan N. (2019). "Asking the right questions: Demystifying writing assignments across the disciplines". *Journal of English for Academic Purposes*, 41, 100776.

Carloni G. (2015). *CLIL in Higher Education and the Role of Corpora. A Blended Model of Consultation Services and Learning Environments*. Venezia: Edizioni Ca' Foscari. *doi.org/10.14277/978-88-6969-038-9*.

Carloni G. (2016). *Corpus Linguistics and English Teaching Materials*. Milano: FrancoAngeli.

Carloni G. (2017). "CLIL materials development in higher education: corpus linguistics and digital tools". In Carmel Mary Coonan, Luciana Favaro and Marcella Menegale (eds.), *Journey through the CLIL Landscape: Problems and Prospects*. Newcastle upon Tyne: Cambridge Scholars Publishing. 105-122.

Carloni G. (2018). "English-Taught Programs and scaffolding in CLIL settings: a case study". In Carmel Mary Coonan, Ada Bier and Elena Ballarin (eds.), "La didattica delle lingue nel nuovo millennio. Le sfide dell'internazionalizzazione". Venezia Venezia: Edizioni Ca' Foscari. *doi.org/10.30687/978-88-6969-227-7*.

Carloni G., Zuccala B. (2017). "Blending Italian at Monash University through an Italian-Australian Digital Project: an analysis of students' perceptions". *LEA – Lingue e Letterature d'Oriente e d'Occidente*, [S.l.], 6, 115-139. *doi:10.13128/LEA-1824-484x-22333*.

Carloni G., Zuccala B. (2018). "Blending Italian 'down-under': Toward a theoretical framework and pragmatic guide for blending tertiary Italian language and culture courses through Skype-enhanced, pre-service teacher-centred telecollaboration". *LEA – Lingue e Letterature d'Oriente e d'Occidente*, 7, 405-445. *doi:10.13128/LEA-1824-484x-24408*.

Carloni G., Zuccala B. (2020). "Blending Italian through Skype: A Diachronic and Comparative Account of a Telecollaborative Project". In J. Fornasiero, S.M.A. Reed, R. Amery, E. Bouvet, K. Enomoto and H.L. Xu (eds.), *Intersections in Language Planning and Policy*. *Language Policy*, vol 23. Cham: Springer. 279-298. *doi.org/10.1007/978-3-030-50925-5_18*.

Carr-Chellman A. (2016). *Instructional Design for Teachers: Improving Classroom Practice*. London: Routledge.

Castañeda L., Selwyn N. (2018). "More than tools? Making sense of the ongoing digitizations of higher education". *International Journal of Educational Technology in Higher Education*, 15/22, 2-10. *doi.org/10.1186/s41239-018-0109-y*.

Castaño-Muñoz J., Duart J.M., Sancho-Vinuesa T. (2014). "The Internet in face-to-face higher education: Can interactive learning improve academic achievement?". *British Journal of Educational Technology*, 45/1, 149-159.

Castellano-Reyes D. (2020). "20 Years of the Community of Inquiry Framework". *TechTrends*, 64, 557-560.

Cenoz J. (2015). "Content-based instruction and content and language integrated learning: The same or different?". *Language, Culture and Curriculum*, 28, 8-24.

 ISBN 9788835112129

Cenoz J. (2017). "The target language, the sociolinguistic and the educational context in CLIL programs". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 239-249.

Cenoz J., Genesee F., Gorter D. (2013). "Critical analysis of CLIL: taking stock and looking forward". *Applied Linguistics*, 35/3, 243-262. *doi.org/10.1093/applin/amt011*.

Chen B., DeNoyelles A., Thompson K., Sugar A., Vargas J. (2014). "Discussion rubrics". In B. Chen, A. DeNoyelles and K. Thompson (eds.). *Teaching Online Pedagogical Repository*. University of Central Florida Center for Distributed Learning. *topr.online.ucf.edu/discussion-rubrics*. Last accessed: 13/08/2020.

Chen B. (2018). "Foster meaningful learning with renewable assignments". In B. Chen, A. deNoyelles and K. Thompson (eds.). *Teaching Online Pedagogical Repository*. Orlando, FL: University of Central Florida Center for Distributed Learning. *topr.online.ucf.edu/r_1h7ucljsasbkbsd/*. Last accessed: 13/08/2020.

Chick R.C., Clifton T., Peace K.M., Propper B.W., Hale D.F., Alseidi A.A., Vreeland T.J. (2020). "Using Technology to Maintain the Education of Residents during the Covid-19 Pandemic". *Journal of Surgical Education*, April 3. *www.sciencedirect.com/science/article/pii/S1931720420300842*. Last accessed: 13/08/2020.

Chinkina M., Kannan M., Meurers D. (2016). "Online Information Retrieval for Language Learning". In *Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics – System Demonstrations*, Berlin, Germany, August 7-12, 2016. Association for Computational Linguistics. 7-12.

Chinkina M., Meurers D. (2016). "Linguistically Aware Information Retrieval: Providing Input Enrichment for Second Language Learners". In *Proceedings of the 11th Workshop on Innovative Use of NLP for Building Educational Applications*, San Diego, California, June 16, 2016. Association for Computational Linguistics. 188-198.

Christie F. (2007). "Ongoing dialogue: Functional linguistic and Bernsteinian sociological perspectives on education". In Frances Christie and James R. Martin (eds.). *Language, Knowledge and Pedagogy*. London: Continuum. 3-13.

Cleveland-Innes M., Campbell P. (2012). "Emotional presence, learning and the online learning environment". *The International Review of Research in Open and Distributed Learning*, 13/4, 269-292.

Clinton V., Khan S. (2019). "Efficacy of Open Textbook Adoption on Learning Performance and Course Withdrawal Rates: A Meta-Analysis". *AERA Open*, 5/3, 1-20. *doi.org/10.1177/2332858419872212*.

Coker H. (2018). "Purpose, Pedagogy and Philosophy: 'Being' an Online Lecturer". *The International Review of Research in Open and Distributed Learning*, 19/5, 128-144. *doi.org/10.19173/irrodl.v19i5.3312*.

Coffin C. (2017). "Systemic Functional Linguistics: A theory for integrating content-language learning (CLIL)". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 91-103.

Coffin C., Donohue J., North S. (2009). *Exploring English Grammar: from Formal to Functional*. New York: Routledge.

 ISBN 9788835112129

Coleman J. (2006). "English-medium teaching in European higher education". *Language Teaching*, 39/1, 1-14. *doi:10.1017/S026144480600320X*.
Colvard N.B., Watson C.E., Park H. (2018). "The Impact of Open Educational Resources on Various Student Success Metrics". *International Journal of Teaching and Learning in Higher Education*, 30/2, 262-276. *files.eric.ed.gov/fulltext/EJ1184998.pdf*. Last accessed: 13/08/2020.
Conrad S., Biber D. (2009). *Real Grammar: A Corpus-Based Approach to English*. White Plains, NY: Pearson/Longman.
Conrad D., Openo J. (2018). *Assessment Strategies for Online Learning Engagement and Authenticity*. Edmonton: Athabasca University Press.
Cook V. (2012). "Multi-competence". In Carol Chapelle (ed.), The Encyclopedia of Applied Linguistics. New York: Wiley-Blackwell. 3768-3774.
Cook V. (2016). "Premises of multi-competence". In Vivian Cook and Li Wei (eds.), *The Cambridge Handbook of Linguistic Multi-competence*. Cambridge: Cambridge University Press. 1-25.
Cooney C. (2017). "What Impacts do OER Have on Students? Students Share Their Experiences with a Health Psychology OER at New York City College of Technology". *International Review of Research in Open and Distributed Learning*, 18/4, 155-178.
Cope B., Kalantzis M. (2017). "Conceptualizing e-learning". In Bill Cope and Mary Kalantzis (eds.), *E-Learning Ecologies: Principles for New Learning and Assessment*. New York and Abingdon: Routledge. 1-45.
Costa F. (2012). "Evidence on Form in ICLHE Lectures in Italy. Evidence from English-Medium Science Lectures by Native Speakers of Italian". *AILA Review*, 25, 30-47.
Costa F. (2016). *CLIL (Content and Language Integrated Learning) through English in Italian Higher Education*. Milano: LED.
Council of Europe (2001). *Common European Framework of Reference for Languages: Learning, Teaching, Assessment*. Cambridge: Cambridge University Press.
Coyle D., Hood P., Marsh D. (2010). *CLIL Content and Language Integrated Learning*. Cambridge: Cambridge University Press.
Coyle D. (2020). "Exploring the Potential of a Pluriliteracies Approach". Kim Bower, Do Coyle, Russell Cross and Gary N. Chambers (eds.), *Curriculum Integrated Language Teaching: CLIL in Practice*. Cambridge: Cambridge University Press. 187-204.
Crouch C.H., Mazur E. (2001). "Peer Instruction: ten years of experience and results". *Am. J. Phys.*, 69, 970-977. *doi:10.1119/1.1374249*.
Dafouz E. (2018). "English-Medium Instruction and Teacher Education Programmes in Higher Education: Ideological Forces and Imagined Identities at Work". *International Journal of Bilingual Education and Bilingualism*, 21/5, 540-552. *doi:10.1080/13670050.2018.1487926*.
Dafouz E., Camacho-Miñano M.M. (2016). "Exploring the impact of English-medium instruction on university student academic achievement: The case of accounting". *English for Specific Purposes*, 44, 57-67.

 ISBN 9788835112129

Dafouz E., Haines K., Pagèze J. (2020). "Supporting educational developers in the era of internationalised higher education: insights from a European project". *International Journal of Bilingual Education and Bilingualism*, 23/3, 326-339. Special Issue on *The Role of Languages in English-Medium Instruction (EMI) at University*. doi.org/10.1080/13670050.2019.1651818.

Dafouz E., Smit U. (2016). "Towards a Dynamic Conceptual Framework for English-Medium Education in Multilingual University Settings". *Applied Linguistics*, 37/3, 397-415. *doi.org/10.1093/applin/amu034*.

Dafouz E., Smit U. (2017). "A sociolinguistic approach to the multifaceted Roles of English in English-medium education in multilingual university settings". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 287-306.

Dafouz E., Smit U. (2020). *ROAD-MAPPING English Medium Education in the Internationalised University*. Cham, Switzerland: Palgrave Pivot.

Dalton-Puffer C. (2011). "Content and Language Integrated Learning: From Practice to Principles?". *Annual Review of Applied Linguistics*, 31, 182-204. *doi.org/10.1017/S0267190511000092*.

Dalton-Puffer C. (2013). "A construct of cognitive discourse functions for conceptualising content-language integration in CLIL and multilingual education". European Journal of Applied Linguistics, *1*/2, 216-253. *doi.org/10.1515/eujal-2013-0011*.

Dalton-Puffer C. (2017). "Discourse Analysis and CLIL". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 167-181.

Dalton-Puffer C., Nikula T., Smit U. (eds.) (2010). *Language Use and Language Learning in CLIL Classrooms*. Amsterdam: John Benjamins.

Dalton-Puffer C., Bauer-Marschallinger S., Brückl-Mackey K., Hofmann V., Hopf J., Kröss L., Lechner L. (2018). "Cognitive discourse functions in Austrian CLIL lessons: towards an empirical validation of the CDF Construct". European Journal of Applied Linguistics, *6*/1, 5-29. *doi.org/10.1515/eujal-2017-0028*.

Dancy M., Henderson C., Turpen C. (2016). "How faculty learn about and implement research-based instructional strategies: the case of Peer Instruction". *Phys. Rev. Phys. Educ. Res.*, 12, 010110. *doi:10.1103/PhysRevPhysEducRes.12.010110*.

Daniello F. (2014). "Elementary grade teachers using systemic functional linguistics to inform genre-based writing instruction". In Luciana De Oliveira and Joshua Iddings (eds.). *Genre Pedagogy across the Curriculum. Theory and Application in Classrooms and Contexts*. Sheffield: Equinox. 40-54.

Darby F., Lang J.M. (2019). *Small Teaching Online: Applying Learning Science in Online Classes*. San Francisco, CA: Jossey-Bass Wiley.

Darder A. (2012). *Culture and Power in the Classrooms. Educational Foundations for the Schooling of Bicultural Studies*. Boulder, CO: Paradigm Publishers.

Dastur F. (2017). "How to Open an Academic Department". In Rajiv S. Jhangiani and Robert Biswas-Diener (eds.). *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. London: Ubiquity Press. 163-178. *doi.org/10.5334/bbc.m*.

Davidse K. (2017). "Systemic functional linguistics and the clause: the experiential metafunction". In Tom Bartlett and Gerard O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. New York and London: Routledge. 79-95.

Dearden J. (2015). *English as a Medium of Instruction – a Growing Global Phenomenon*. London: British Council. *www.britishcouncil.org/sites/default/files/e484_emi_-_cover_option_3_final_web.pdf*. Last accessed: 13/08/2020.

deBoer M. (2018). "Dialogic inquiry as a process in the flipped EFL classroom". In Jeffrey Mehring and Adrian Leis (eds.). *Innovations in Flipping the Language Classroom: Theories and Practices*. Singapore: Springer. 59-68.

De Bono E. (2000). *The De Bono Code Book: Going beyond the Limits of Language*. London: Viking.

de Graff R. (2016). "Foreword: Integrating Content and Language in Education: Best of Both Worlds?". In Tarja Nikula, Emma Dafouz, Pat Moore and Ute Smit (eds.). *Conceptualising Integration in CLIL and Multilingual Education*. Bristol: Multilingual Matters. xiii-xvi.

Delaney D., McManus L., Ng C. (2015). "First Year Accounting Students' Perceptions of Blended Learning". *Business Education & Accreditation*, 7/2, 9-23. *ssrn.com/abstract=2730290*. Last accessed: 13/08/2020.

Delgado H., Delgado M.S., Hilton III J. (2019). "On the Efficacy of Open Educational Resources: Parametric and Nonparametric Analyses of a University Calculus Class". *International Review of Research in Open and Distributed Learning*, 20/1. *doi.org/10.19173/irrodl.v20i1.3892*.

Delimont N., Turtle E.C., Bennett A., Adhikari K., Lindshield B.L. (2016). "University students and faculty have positive perceptions of open/alternative resources and their utilization in a textbook replacement initiative". *Research in Learning Technology*, 24. *doi.org/10.3402/rlt.v24.29920*.

del Pilar García Mayo M., Basterrechea M. (2017). "Insights from an interactionist perspective". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 33-50.

de Oliveira L.C., Avalos M.A. (2018). "Critical SFL Praxis among Teacher Candidates: Using Systemic Functional Linguistics in K-12 Teacher Education". In Ruth Harman (ed.). *Bilingual Learners and Social Equity. Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 109-123.

Derewianka B. (2013). "Change and innovation in primary education". In Ken Hyland and Lillian L.C. Wong (eds.). *Innovation and Change in English Language Education*. Abingdon: Routledge. 155-171.

DeRosa R., Robison S. (2017). "From OER to Open Pedagogy: Harnessing the Power of Open". In Rajiv S. Jhangiani and Robert Biswas-Diener (eds.). *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. London: Ubiquity Press. 115-124. *doi.org/10.5334/bbc.i*.

DeRosa R. (2020). "Values-Centered Instructional Planning". *Inside Higher Education*, May 13. *www.insidehighered.com/digital-learning/views/2020/05/13/consistent-mission-aligned-instructional-framework-fall-and-beyond*. Last accessed: 13/08/2020.

de Wit H., Hunter F. (2015). "Understanding Internationalisation of Higher Education in the European Context". In Hans de Wit, Fiona Hunter, Laura Howard and Eva Egron-Polak (eds.). Internationalisation of Higher Education. Brussels, Belgium: European Parliament Directorate-General for Internal Policies Policy Department B Structural and Cohesion Policies. *www.europarl.europa.eu/RegData/etudes/STUD/2015/540370/IPOL_STU(2015)540370_EN.pdf*. Last accessed: 13/08/2020.

de Wit H., Hunter F., Howard L., Egron-Polak E. (eds.) (2015). Internationalisation of Higher Education. Brussels, Belgium: European Parliament Directorate-General for Internal Policies Policy Department B Structural and Cohesion Policies. *www.europarl.europa.eu/RegData/etudes/STUD/2015/540370/IPOL_STU(2015)540370_EN.pdf*. Last accessed: 13/08/2020.

de Wit H., Leask B. (2015). "Internationalization, the Curriculum and the Disciplines". *International Higher Education*, 83, Special issue, 10-12.

Díaz A.R. (2018). "Challenging dominant epistemologies in higher education: the role of language in the geopolitics of knowledge (re)production". In Indika Liyanage (ed.). *Multilingual Education Yearbook 2018: Internationalization, Stakeholders and Multilingual Education Contexts*. Cham, Switzerland: Springer. 21-36. *doi:10.1007/978-3-319-77655-2_2*.

Diener E., Diener C., Biswas-Diener R. (2017). "Open-Source for Educational Materials Making Textbooks Cheaper and Better". In Rajiv S. Jhangiani and Robert Biswas-Diener (eds.). *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. London: Ubiquity Press. 209-217. *doi.org/10.5334/bbc.p*.

DiMaggio P. (2015). "Adapting computational text analysis to social science (and vice versa)". *Big Data & Society*, 2-5. *doi.org/10.1177/2053951715602908*.

DiMaggio P., Nag M., Blei D.M. (2013). "Exploiting affinities between topic models and the sociological perspective on culture: Applications to newspaper coverage of U.S. government arts funding". *Poetics*, 41, 570-606.

Dori Y.J., Belcher J. (2005). "How Does Technology-Enabled Active Learning Affect Undergraduate Students' Understanding of Electromagnetism Concepts?". *The Journal of the Learning Sciences*, 14/2, 243-279.

Dori Y.J., Belcher J., Bessette M., Danziger M., McKinney A., Hult E. (2003). "Teaching for active learning". *Materialstoday*, 6/12, 44-49. *doi.org/10.1016/S1369-7021(03)01225-2*.

Dori Y., Hult E., Breslow L., Belcher J. (2007). "How much have they retained? Making unseen concepts seen in a freshman electromagnetism course at MIT". Journal of Science Education and Technology, 16/4, 299-323. *doi:10.1007/s10956-007-9051-9*.

Dornyei Z. (2005). *The Psychology of the Language Learner. Individual Differences in Second Language Acquisition*. London: Lawrence Erlbaum Associates, Inc.

Doiz A., Lasagabaster D. (2018). "Teachers' and Students' Second Language Motivational Self System in English-Medium Instruction: A Qualitative Approach". *TESOL Quarterly*, 52, 657-679.

Draper S.W., Brown M.I. (2004). "Increasing interactivity in lectures using an electronic voting system". *Journal of Compututer Assisted Learning*, 20, 81-94. *doi.org/10.1111/j.1365-2729.2004.00074.x*.

 ISBN 9788835112129

Dudeney G., Hockly N., Pegrum M. (2013). *Digital Literacies*. Harlow: Pearson.
Dunlap J.C., Lowenthal P.R. (2018). "Online educators' recommendations for teaching online: Crowdsourcing in action". *Open Praxis*, 10/1, 79-89. *doi.org/10.5944/openpraxis.10.1.721*.
Eberle R.F. (1972). "Developing imagination through scamper". *The Journal of Creative Behavior*, 6/3, 199-203.
Eberle B. (2008). *Scamper: Creative Games and Activities for Imagination Development*. Texas: Prufork Press.
Educase (2010). "7 Things You Should Know About the HyFlex Course Model". *library.educause.edu/resources/2010/11/7-things-you-should-know-about-the-hyflex-course-model#:~:text=HyFlex%20is%20a%20course%20design,according%20to%20need%20or%20preference*; *library.educause.edu/-/media/files/library/2010/11/eli7066-pdf.pdf*. Last accessed: 13/08/2020.
Egbert J., Herman D., Lee H. (2015). "Flipped instruction in English language teacher education: A design-based study in a complex, open-ended learning environment". TESL-EJ*, 19*/2, *2*.
English M., West P., Jackson J. (2019). "Building a Community of Inquiry in Online Library Instruction: The CoI Framework Applied". *Journal of Library and Information Services in Distance Learning*, 13/3, 283-293. *doi.org/10.1080/1533290X.2019.1575319*.
Escobar Urmeneta C., Walsh S. (2017). "Classroom interactional competence in content and language integrated learning". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 183-200.
European Commission (2013a). "European higher education in the world". (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 11/07/2013, COM (2013) 499 Final). *eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52013DC0499*. Last accessed: 13/08/2020.
European Commission (2013b). "Opening up Education: Innovative teaching and learning for all through new technologies and Open Educational Resources". (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 25/09/2013, COM (2013) 654 Final. *eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0654*. Last accessed: 13/08/2020.
European Council (2017). "European Council meeting (14 December 2017) – Conclusion". Brussels, 14 December 2017, EUCO 19/1/17 REV 1. *www.consilium.europa.eu/media/32204/14-final-conclusions-rev1-en.pdf*. Last accessed: 13/08/2020.
European Commission (2018). "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Digital Education Action Plan". Brussels, 17.01.2018, COM (2018) 22 final. *eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2018:22:FIN*. Last accessed: 21/08/2020.
European Commission (2020a). *Digital Education Action Plan 2021-2027. Resetting*

Education and Training for the Digital Age – Communication. European Union. *ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en*. Last accessed: 14/10/2020.

European Commission (2020b). "Public consultation launched on the new Digital Education Action Plan". *ec.europa.eu/education/news/public-consultation-new-digital-education-action-plan_en*. Last accessed: 21/08/2020.

Eurydice (2006). *Content and Language Integrated Learning (CLIL) at School in Europe*. *www.indire.it/lucabas/lkmw_file/eurydice/CLIL_EN.pdf*. Last accessed: 13/08/2020.

Evnitskaya N., Dalton-Puffer C. (2020). "Cognitive discourse functions in CLIL classrooms: eliciting and analysing students' oral categorizations in science and history". *International Journal of Bilingual Education and Bilingualism*. *doi:10.1080/13670050.2020.1804824*.

Fang Z. (2013). "Learning to teach against the institutional grain: A professional development model for teacher empowerment". In Xudong Zhu and Kenneth Zeichner (eds.), *Preparing Teachers for the 21st Century*. London: Springer. 237-250.

Farrell T.S. (2020). "Professional development through reflective practice for English-medium instruction (EMI) teachers". *International Journal of Bilingual Education and Bilingualism*, 23/3, 277-286. Special Issue on *The Role of Languages in English-Medium Instruction (EMI) at University*. *doi.org/10.1080/13670050.2019.1612840*.

Feng X., Xie J., Liu Y. (2017). "Using the Community of Inquiry Framework to Scaffold Online Tutoring". *The International Review of Research in Open and Distributed Learning*, 18/2, 162-188. *doi.org/10.19173/irrodl.v18i2.2362*.

Fisher L., Brinthaupt T.M., Gardner J., Raffo D. (2015). "The effects of conditional release of course materials on student performance". *Journal of Student Success and Retention*, 2/1, 1-14.

Fischer L., Hilton III J., Robinson T.J., Wiley D.A. (2015). "A multi-institutional study of the impact of open textbook adoption on the learning outcomes of postsecondary students". *Journal of Computing in Higher Education*, 27, 159-172. *doi:10.1007/s12528-015-9101-x*.

Foley McCabe M., González-Flores P. (2017). *Essentials of Online Teaching. A Standards-Based Guide*. New York: Routledge.

Fontaine L. (2017). "The English nominal group: the centrality of the Thing element". In Tom Bartlett and Gerard O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. New York and London: Routledge. 267-283.

Forey G., Sampson N. (2017). "Textual metafunction and theme: what's 'it' about?". In Tom Bartlett and Gerard O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. New York and London: Routledge. 131-145.

Forey G., Polias J. (2017). "Multi-semiotic resources providing maximal input in teaching science through English". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 145-164.

Fortanet-Gómez I. (2011). "Critical Components of Integrating Content and Language

in Spanish Higher Education". *Across the Disciplines*, 8/3. *wac.colostate.edu/atd/clil/fortanet-gomez.cfm*. Last accessed: 13/08/2020.
Fortanet-Gómez I. (2013). *CLIL in Higher Education: Towards a Multilingual Language Policy*. Bristol, UK: Multilingual Matters.
Freire P. (1970). *Pedagogy of the Oppressed*. New York: Continuum.
Garrison D.R., Anderson T., Archer W. (2000). "Critical inquiry in a text-based environment: Computer conferencing in higher education". *The Internet and Higher Education*, 2(2-3), 87-105.
Garrison D.R., Arbaugh J.B. (2007). "Researching the community of inquiry framework: Review, issues and future directions". *The Internet and Higher Education*, 10/3, 157-172.
Garrison D.R., Kanuka H. (2004). "Blended learning: Uncovering its transformative potential in higher education". *Internet and Higher Education*, 7, 95-105. *doi.org/10.1016/j.iheduc.2004.02.001*.
Garrison D.R., Vaughan N.D. (2008). *Blended Learning in Higher Education: Framework, Principles and Guidelines*. San Francisco: Jossey-Bass.
Garrison R. (2016). *Thinking Collaboratively Learning in a Community of Inquiry*. Abindgon: Routledge.
Garrison R. (2017). *E-Learning in the 21st Century: A Community of Inquiry Framework for Research and Practice*. New York: Routledge.
Gee J.P. (1992). *The Social Mind: Language, Ideology and Social Practice*. New York: Bergin and Garvey.
Gee J.P. (2015). *Literacy and Education*. New York: Routledge.
Gibson J.J. (2015). *The Ecological Approach to Visual Perception*. London and New York: Routledge.
Gibson D., Ifenthaler D., Orlic D. (2016). "Open Assessment Resources for Deeper Learning". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 257-279.
Gladding T. (2011). "Using Creativity and the Creative Arts in Counseling: An International Approach". *Turkish Psychological Counseling & Guidance Journal*, 4/35, 1-7.
Glynn C., Wesely P., Wassell B. (2014). *Words and Actions: Teaching Languages through the Lens of Social Justice*. Alexandria, VA: ACTFL.
Golden C. (2020). "Remote teaching: The glass half-full". *EDUCAUSE Review*, March 23. *er.educause.edu/blogs/2020/3/remote-teaching-the-glass-half-full*. Last accessed: 13/08/2020.
Gómez-Rey P., Barbera E., Fernández-Navarro F. (2018). "Students' perceptions about online teaching effectiveness: a bottom-up approach for identifying online instructors' role". *Australasian Journal of Educational Technologies*, 34/1, 116-130.
Goodyear P. (2015). "Teaching as design". *Herdsa Review of Higher Education*, 2/2, 27-50. *doi.org/10.1111/hea.12037_26*.
Graham C.R. (2006). "Blended learning systems: Definition, current trends and future directions". In C.J. Bonk and C.R. Graham (eds.). *The Handbook of Blended Learning: Global Perspectives, Local Designs*. San Francisco: Pfeiffer. 3-21. *doi.org/10.2307/4022859*.

Graney M.J. (2018). "Flipped learning and formative assessment in an English language class". In Jeffrey Mehring and Adrian Leis (eds.). *Innovations in Flipping the Language Classroom: Theories and Practices*. Singapore: Springer. 59-68.
Gray B. (2015). *Linguistic Variation in Research Articles. When Discipline Tells Only Part of the Story*. Amsterdam: John Benjamins.
Green C. (2017). "Open Licensing and Open Education Licensing Policy". In Rajiv S. Jhangiani and Robert Biswas-Diener (eds.). *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. London: Ubiquity Press. 29-41. *doi.org/10.5334/bbc.r*.
Green T.D., Brown A.H. (2018). *The Educator's Guide to Producing New Media and Open Educational Resources*. New York: Routledge.
Gretarsson B., O'Donovan J., Bostandjiev S., Höllerer T., Asuncion A., Newman D., Smyth P. (2012). "TopicNets: Visual Analysis of Large Text Corpora with Topic Modeling". *Transactions on Intelligent Systems and Technology (TIST)*. 3. *doi:10.1145/2089094.2089099*.
Grosfoguel R. (2013). "The structure of knowledge in Westernized universities: Epistemic racism/sexism and the four genocides/epistemicides of the long 16th century". *Human Architecture: Journal of the Sociology of Self-Knowledge*, 11/1, 73-90.
Gustafsson M., Jacobs C. (2013). "Editorial: Student Learning and ICLHE – Frameworks and Contexts". *Journal of Academic Writing*, 3/1, i-xii.
Guth S., Helm F., O'Dowd R. (2012). *University Language Classes Collaborating Online. A Report on the Integration of Telecollaborative Networks in European Universities*. *www.unicollaboration.org/wp-content/uploads/2016/06/1.1-Telecollaboration_report_Executive_summary-Oct2012_0.pdf*. Last accessed 17/10/2020.
Halliday M.A.K. (2004). *The Language of Science*. In Jonathan J. Webster (ed.). *The Collected Work of M.A.K. Halliday. Volume 5*. London: Continuum.
Halliday M.A.K., Matthiessen C.M.I.M. (2014). *Halliday's Introduction to Functional Grammar*. Abingdon: Routledge.
Halverson L.R., Graham C.R., Spring K.J., Drysdale J.S. (2012). "An analysis of high impact scholarship and publication trends in blended learning". *Distance Education*, 33/3, 381-413. *doi:10.1080/ 01587919.2012.723166*.
Hampel R. (2015). "Theoretical Approaches and Research-Based Pedagogies for Online Teaching". In R. Hampel and U. Stickler (eds.). *Developing Online Language Teaching: Research-Based Pedagogies and Reflective Practices*. New York: Palgrave Mcmillan. 134-149.
Hampel R., Stickler U. (2015). "Transforming Teaching: New Skills for Online Language Learning Spaces". In R. Hampel and U. Stickler (eds.). *Developing Online Language Teaching: Research-Based Pedagogies and Reflective Practices*. New York: Palgrave Mcmillan. 63-77.
Hampel R. (2020). *Disruptive Technologies and the Language Classroom. A Complex Systems Theory Approach*. Cham, Switzerland: Palgrave MacMillan. Kindle Edition.
Harman R. (2013). "Literary intertextuality in genre-based pedagogies: Building lexical cohesion in fifth-grade L2 writing". *Journal of Second Language Writing*, 22/2, 125-140.

Harman R. (2018). "Transforming Normative Discourses of Schooling: Critical Systemic Functional Linguistics Praxis". In Ruth Harman (ed.). *Bilingual Learners and Social Equity Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 1-20.

Harman R., Khote N. (2017). "Critical SFL Praxis with bilingual youth: Disciplinary instruction in a third space". *Critical Inquiry in Language Studies*, 2, 1-21. *doi.org/10.1080/15427587.2017.1318663*.

Harman R., Simmons A. (2014). "Systemic Functional Linguistics Approach to Teaching Literary Narratives: Semiotic Resource in Generating Critical Language Awareness". In Luciana de Oliveira and Joshua Iddings (eds.). *Genre Pedagogy across the Curriculum. Theory and Application in Classrooms and Contexts*. Sheffield: Equinox Publishing. 75-91.

Heines K. (2017). "Purposeful interaction and the professional development of content teachers". In Jennifer Valcke and Robert Wilkinson (eds.). *Integrating Content and Language in Higher Education. Perspectives on Professional Practice*. Frankfurt: Peter Lang. 39-58.

Helm F. (2020). "EMI, internationalisation and the digital". *International Journal of Bilingual Education and Bilingualism*, 23/3, 314-325. Special Issue on *The Role of Languages in English-Medium Instruction (EMI) at University*. *doi.org/10.1080/13670050.2019.1643823*.

Henderikx P., Jansen D. (2018). "The Changing Pedagogical Landscape: In search of patterns in policies and practices of new modes of teaching and learning". *tinyurl.com/CPLreport2018*. Last accessed: 13/08/2020.

Henderikx P., Ubachs G. (2019). *Innovative Models for Collaboration and Student Mobility in Europe. Results of EADTU's Task Force and Peer Learning Activity on Virtual Mobility*. EADTU. *openaccess.uoc.edu/webapps/o2/bitstream/10609/93586/1/Innovative Models for Collaboration and Student Mobility in Europe.pdf*. Last accessed: 13/08/2020.

Hendricks C., Reinsberg S., Rieger G. (2017). "The adoption of an open textbook in a large Physics course: An analysis of cost, outcomes, use and perceptions". *The International Review of Research in Open and Distributed Learning*, 18/4. *dx.doi.org/10.19173/irrodl.v18i4.3006*.

Henriksen B., Holmen A., Kling J. (2019). *English Medium Instruction in Multilingual and Multicultural Universities. Academics' Voices from the Northern European Context*. Abingdon, Oxon: Routledge.

Herington R. (2020). "Observation as a Tool to Facilitate the Professional Development of Teaching Faculty Involved in English as a Medium of Instruction: Trainer and Trainee Perspectives". In M.L. Carrió-Pastor (ed.). *Internationalising Learning in Higher Education. The Challenges of English as a Medium of Instruction*. Singapore: Springer. 65-82.

Hidalgo McCabe E., Fernández-González N. (2019). "Framing 'choice' in language education: The case of freedom in constructing inequality". In L. Martín Rojo and A. Del Percio (eds.). *Language and Neoliberal Governmentality*. New York: Routledge. 69-90.

 ISBN 9788835112129

Hilton J. (2016). "Open educational resources and college textbook choices: a review of research on efficacy and perceptions". *Educational Technology Research and Development*, 64/4, 573-590.

Hilton III J., Fischer L., Wiley D., Williams L. (2016). "Maintaining Momentum toward Graduation: OER and the Course Throughput Rate". *International Review of Research in Open and Distributed Learning*, 17/6. *doi.org/10.19173/irrodl.v17i6.2686*.

Hilton J., Gaudet D., Clark P., Robinson J., Wiley D. (2013). "The adoption of open educational resources by one community college math department". *The International Review of Research in Open and Distributed Learning*, 14/4. *www.irrodl.org/index.php/irrodl/article/view/1523*. Last accessed: 13/08/2020.

Hilton J. III, Laman C. (2012). "One college's use of an open psychology textbook". *Open Learning*, 27/3, 265-272. *dx.doi.org/10.1080/02680513.2012.716657*.

Hodges C., Moore S., Lockee B., Trust T., Bond A. (2020). "The difference between emergency remote teaching and online learning". *EDUCAUSE Review*, March 27. *er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning*. Last accessed: 13/08/2020.

Hoffmann S., Evert S., Smith N., Lee D., Berglund-Prytz Y. (2008). *Corpus Linguistics with BNCweb – A Practical Guide*. Frankfurt am Main: Peter Lang.

Honeycutt B., Garrett J. (2014). "Expanding the definition of a flipped learning environment". *Faculty Focus*. *www.facultyfocus.com/articles/instructional-design/expanding-definition-flipped-learning-environment*. Last accessed: 13/08/2020.

Hrastinski S. (2019). "What Do We Mean by Blended Learning?". *TechTrends* 63, 564-569. *doi.org/10.1007/s11528-019-00375-5*.

Hu J., Gao X. (2018). "Linguistic demands in English-language science textbooks in Hong Kong". *The Asian Journal of Applied Linguistics*, 5/1, 170-180.

Hudzik J.K. (2011). *Comprehensive Internationalization: From Concept to Action*. Washington, DC: NAFSA, The Association of International Educators.

Humphrey S. (2010). "Modelling Social Affiliation and Genre in the Civic Domain". In Ahmar Mahboob and Naomi K. Knight (eds.), *Appliable Linguistics*. New York and London: Continuum. 76-91.

Humphrey S. (2011). "Designing a reading pedagogy for undergraduate biology students". *Linguistics and the Human Sciences*, 7/1-3, 55-76. *doi.org/10.1558/lhs.v7i1-3.55*.

Humphrey S. (2013). "And the Word Became Text: A 4×4 Toolkit for Scaffolding Writing in Secondary English". *English in Australia*, 48/1, 46-55.

Humphrey S. (2018). "'We Can Speak to the World': Applying Meta-linguistic Knowledge for Specialized and Reflexive Literacies". In Ruth Harman (ed.). *Bilingual Learners and Social Equity. Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 44-69.

Humphrey S., Martin J.R, Dreyfus S., Mahboob A. (2010). "The 3×3: Setting Up a Linguistic Toolkit for Teaching Academic Writing". In Ahmar Mahboob and Naomi K. Knight (eds.). *Appliable Linguistics*. New York and London: Continuum. 185-199.

 ISBN 9788835112129

Humphrey S., Robinson S. (2012). "Using a 4×4 framework for whole school literacy development". In John Knox (ed.). *Papers from the 39th International Systemic Functional Congress*. 81-86. *www.isfla.org/Systemics/Conferences/ISFC39_2012_proceedings.pdf*. Last accessed: 13/08/2020.
Hutchins E. (1995). *Cognition in the Wild*. Cambridge and London: MIT Press.
Hutchins E. (2001). "Distributed cognition". In N.J. Smelser and P.B. Baltes (eds.), *International Encyclopedia of the Social and Behavioral Sciences*. New York: Elsevier Science. 2068-2072.
Hyland K. (2004). "Disciplinary interactions: metadiscourse in L2 postgraduate writing". *Journal of Second Language Writing*, 13, 133-151.
Hyland K. (2005). "Stance and engagement: a model of interaction in academic discourse". *Discourse Studies*, 7/2, 173-192.
Hylén J., van Damme D., Mulder F., D'Antoni S. (2012). "Open Educational Resources: Analysis of Responses to the OECD Country Questionnaire". *OECD Education Working Papers*, 76. Paris: OECD Publishing. *dx.doi.org/10.1787/5k990rjhvtlv-en*.
Ignatow G., Mihalcea R. (2017). *An Introduction to Text Mining: Research Design, Data Collection, and Analysis*. Thousand Oaks, CA: SAGE.
Illeris K. (2009). *Contemporary Theories of Learning: Learning Theorists… In Their Own Words*. Abingdon: Routledge.
Illowsky B.S., Hilton J., Whiting J., Ackerman J.D. (2016). "Examining student perception of an open statistics book". *Open Praxis*, 8/3, 265-276. *openpraxis.org/index.php/OpenPraxis/article/view/304/218*. Last accessed: 13/08/2020.
Inamorato dos Santos A. (2019). *Practical Guidelines on Open Education for Academics: Modernising Higher Education via Open Educational Practices (based on the OpenEdu Framework)*. Luxembourg: Publications Office of the European Union. *doi:10.2760/55923*.
Inamorato dos Santos A., Punie Y., Castaño Muñoz J. (2016). *Opening up Education: a Support Framework for Higher Education Institutions*. JRC Science for Policy Report, EUR 27938 EN. Luxembourg: European Union. *doi:10.2791/293408*.
Jänicke S., Franzini G., Cheema M.F., Scheuermann G. (2015). "On Close and Distant Reading in Digital Humanities: A Survey and Future Challenges". In R. Borgo, F. Ganovelli and I. Viola (eds.), Eurographics Conference on Visualization (EuroVis) STAR – State of The Art Report. *pdfs.semanticscholar.org/20cd/40f3f17dc7d8f49d368c2efbc2e27b0f2b33.pdf*. Last accessed 18/08/2020.
Jewitt C., Bezemer J., O'Halloran K. (2016). *Introducing Multimodality*. London and New York: Routledge.
Jhangiani R.S., Dastur F.N., Le Grand R., Penner K. (2018). "As Good or Better than Commercial Textbooks: Students' Perceptions and Outcomes from Using Open Digital and Open Print Textbooks". *The Canadian Journal for the Scholarship of Teaching and Learning*, 9/1. *doi.org/10.5206/cjsotl-rcacea.2018.1.5*.
Jhangiani R.S., Green A.G., Belshaw J.D. (2016). "Three Approaches to Open Textbook Development". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 179-197.
Jhangiani R.S., Jhangiani S. (2017). "Investigating the perceptions, use, and impact

of open textbooks: A survey of post-secondary students in British Columbia". *The International Review of Research in Open and Distributed Learning*, 18/4. *dx.doi.org/10.19173/irrodl.v18i4.3012*.
Jin L. (2013). "Language Development and Scaffolding in a Sino-American Telecollaborative Project". *Language Learning & Technology*, 17/2, 193-219.
Jockers M.L., Underwood T. (2016). "Text-Mining the Humanities". In Susan Schreibman, Ray Siemens and John Unsworth (eds.), A New Companion to the Digital Humanities. Chichester, West Sussex: Wiley Blackwell. 291-306.
Johnson D.W., Johnson R.T., Smith K.A. (1998). *Active Learning: Cooperation in the College Classroom*. Edina, MN: Interaction Book Company.
Johnson D.W., Johnson R.T., Smith K.A. (2014). "The power of cooperative learning for university classes: The interrelationships among theory, research, and practice". *Journal on Excellence in College Teaching*, 25/4.
Jones E., Killick D. (2013). "Graduate attributes and the internationalized curriculum: embedding a global outlook in disciplinary learning outcomes". *Journal of Studies in International Education*, 17/2, 165-182. *doi:10.1177/1028315312473655*.
Kahle D. (2008). "Designing Open Education Technology". In Toru Iiyoshi and M.S. Vijay Kumar (eds.). *Opening up Education*. Cambridge, MA: MIT Press. 27-45.
Kalantzis M., Cope B. (2016). "New media and productive diversity in learning". In Sebastian Barsch, Nina Glutsch and Mona Massumi (eds.), *Diversity in der LehrerInnenbildung. Internationale Dimensionen der Vielfalt in Vorschung und Praxis*. Münster: Waxmann. 310-325.
Karalis T., Raikou N. (2020). "Teaching at the Times of Covid-19: Inferences and Implications for Higher Education Pedagogy". *International Journal of Academic Research in Business and Social Sciences*, 10/5, 479-493.
Keay J., May H., O'Mahony J. (2014). "Improving learning and teaching in transnational education: can communities of practice help?". *Journal of Education for Teaching*, 40/3, 251-266. *doi:10.1080/02607476.2014.903025*.
Kelly R. (2020). "Purdue Shares Look inside HyFlex Classroom". Campus Technology, September 16, 2020. *campustechnology.com/articles/2020/09/16/purdue-shares-look-inside-hyflex-classroom.aspx?s=ct_nu_230920&oly_enc_id=8020E6696790A5S&m=1*. Last accessed: 26/09/2020.
Kergel D., Heidkamp B., Telléus P.K., Rachwal T., Nowakowski S. (eds.) (2018). *The Digital Turn in Higher Education. International Perspectives on Learning and Teaching in a Changing World*. Wiesbaden: Springer.
Khote N. (2018). "Translanguaging in Systemic Functional Linguistics: A Culturally Sustaining Pedagogy for Writing in Secondary Schools". In Ruth Harman (ed.), *Bilingual Learners and Social Equity. Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 153-178.
Killick D. (ed.) (2011). *Embedding a Global Outlook as a Graduate Attribute at Leeds Metropolitan University*. Leeds: Leeds Metropolitan University.
Killick D. (2017). *Internationalization and Diversity in Higher Education: Implications for Teaching, Learning and Assessment*. London: Palgrave.
Kimmons R., Hall C. (2016). "Emerging Technology Integration Models". In George

Veletsianos (ed.). *Emergence and Innovation in Digital Learning*. Edmonton: Athabasca University Press. 51-64.
Kishimoto K. (2018). "Anti-racist pedagogy: from faculty's self-reflection to organizing within and beyond the classroom". *Race Ethnicity and Education*, 21/4, 540-554.
Knight J. (2004). "Internationalization remodeled: Definition, approaches and rationales". *Journal of Studies in International Education*, 8/1, 5-31.
Knight J. (2008). *Higher Education in Turmoil. The Changing World of Internationalisation*. Rotterdam: Sense Publishers.
Ko S., Rossen S. (2017). *Teaching Online. A Practical Guide*. New York: Routledge.
Kostka I., Brinks Lockwood R. (2015). "What's on the Internet for flipping English language instruction?". TESL-EJ, *19*/2, 2.
Kotska I., Marshall H.W. (2017). "Flipped learning in TESOL: past, present and future". In James Perren, Ken Kelch, Jin-suk Byun, Seth Cervantes and Setareh Safavi (eds.). *Applications of CALL Theory in ESL and EFL Environments*. Hershey, PA: IGI Global. 223-243.
Kozhevnikov M., Hegarty M., Mayer R. (2002). "Spatial abilities in problem solving in kinematics". In Michael Anderson, Bernd Meyer and Patrick Olivier (eds.). *Diagrammatic Representation and Reasoning*. London: Springer. 155-171. *doi.org/10.1007/978-1-4471-0109-3_9*.
Krashen S.D. (1982). *Principles and Practice in Second Language Acquisition*. Oxford: Pergamon.
Krashen S.D. (1985). *The Input Hypothesis: Issues and Implications*. London: Longman.
Krathwohl D.R. (2002). "A revision of Bloom's Taxonomy: An overview". *Theory into Practice*, 41, 212-218.
Laal M. (2013). "Positive Interdependence in Collaborative Learning". *Procedia – Social and Behavioral Sciences*, 93, 1433-1437. *doi.org/10.1016/j.sbspro.2013.10.058*.
Lantolf J. (2000). "Introducing Sociocultural Theory". In James Lantolf (ed.). *Sociocultural Theory and Second Language Learning*. Oxford: Oxford University Press. 1-26.
Lantolf J.P., Thorne S.L. (2006). *Sociocultural Theory and the Genesis of Second Language Development*. Oxford: Oxford University Press.
Lantolf J., Thorne S.L., Poehner M. (2015). "Sociocultural Theory and Second Language Development". In Bill van Patten and Jesse Williams (eds.). *Theories in Second Language Acquisition*. New York: Routledge. 207-226.
Lasagabaster D. (2018). "Fostering Team Teaching: Mapping out a Research Agenda for English-Medium Instruction at University Level". *Language Teaching*, 51, 400-416.
Lasry N., Mazur E., Watkins J. (2008). "Peer Instruction: from Harvard to the two-year college". *Am. J. Phys.*, 76, 1066-1069. *doi:10.1119/1.2978182*.
Leask B. (2009). "Using formal and informal curricula to improve interactions between home and international students". *Journal of Studies in International Education*, 13/2, 205-221.
Leask B. (2011). "Assessment, learning, teaching and internationalisation – engaging for the future". *ALT Journal*, 11, 5-20. *eprints.leedsbeckett.ac.uk/1191/1/Assessment, learning, teaching and internationalisation.pdf*. Last accessed: 13/08/2020.

Leask B. (2015). *Internationalizing the Curriculum*. London and New York: Routledge.
Leask B. (2020). "Embracing the possibilities of disruption". *Higher Education Research & Development*. *doi:10.1080/07294360.2020.1824211*.
Lewis T., O'Dowd R. (2016a). "Introduction to Online Intercultural Exchange". In Tim Lewis and Robert O'Dowd (eds.). *Online Intercultural Exchange Policy, Pedagogy, Practice*. New York: Routledge. 3-20.
Lewis T., O'Dowd R. (2016b). "Online Intercultural Exchange and Foreign Language Learning. A Systematic Review". In Tim Lewis and Robert O'Dowd (eds.). *Online Intercultural Exchange Policy, Pedagogy, Practice*. New York: Routledge. 21-66.
Liberman J., Levin V., Luna-Bazaldua D. (2020). "Are students still learning during Covid-19? Formative assessment can provide the answer". UKFIET. *www.ukfiet.org/2020/are-students-still-learning-during-covid-19-formative-assessment-can-provide-the-answer*. Last accessed: 13/08/2020.
Liddicoat J.A., Scarino A. (2013). *Intercultural Language Teaching and Learning*. Oxford: Wiley-Blackwell.
Lightbown P.M. (2008). "Transfer appropriate processing as a model for classroom second language acquisition". In ZhaoHong Han (ed.). *Understanding Second Language Process*. Clevedon, UK: Multilingual Matters. 27-44.
Lightbown P.M. (2014). *Focus on Content-Based Language Teaching*. Oxford: Oxford University Press.
Lin A.M.Y. (2016). *Language across the Curriculum & CLIL in English as an Additional Language (EAL) Contexts. Theory and Practice*. Singapore: Springer.
Lipmanowicz H., McCandless K. (2014). *The Surprising Power of Liberating Structures: Simple Rules to Unleash a Culture of Innovation*. Seattle, WA: Liberating Structures Press.
Lipmanowicz H., Singhal A., McCandless K., Wang H. (2015). "Liberating structures: Engaging everyone to build a good life together". In H. Wang (ed.), *Communication and "The Good Life"*. New York: Peter Lang. Vol. 2, 233-246.
Llinares A., Morton T., Whittaker R. (2012). *Roles of Language in CLIL*. Cambridge: Cambridge University Press.
Llinares A., Christiane Dalton-Puffer C. (2015). "The role of different tasks in CLIL students' use of evaluative language". *System*, 54, 69-79. *doi.org/10.1016/j.system.2015.05.001*.
Llinares A., McCabe A. (2020). "Systemic functional linguistics: the perfect match for content and language integrated learning". *International Journal of Bilingual Education and Bilingualism*, 1/6, 1367-0050. *doi:10.1080/13670050.2019.1635985*.
Llinares A., Nikula T. (2016). "Teacher and student evaluative language in CLIL across contexts: integrating SFL and pragmatic approaches". In Tarja Nikula, Emma Dafouz, Pat Moore and Ute Smit (eds.). *Conceptualising Integration in CLIL and Multilingual Education*. Bristol: Multilingual Matters. 189-210.
Long M.H. (1983). "Native speaker/non-native speaker conversation and the negotiation of comprehensible input". *Applied Linguistics*, 4, 126-141.
Long M.H. (1996). "The role of the linguistic environment in second language

acquisition". In W. Ritchie and T. Bhatia (eds.). *Handbook of Second Language Acquisition*. San Diego: Academic Press Inc. 413-468.
Lopez-Perez M.V., Perez-Lopez M.C., Rodriguez-Ariza L. (2011). "Blended learning in higher education: Students' perceptions and their relation to outcomes". Computers and Education, *56*, 818-826.
Lo Y.Y., Lo E.S.C. (2014). "A meta-analysis of the effectiveness of English-medium education in Hong Kong". *Review of Educational Research*, 84/1, 47-73. *doi.org/10.3102/0034654313499615*.
Lukin A., Moore A.R., Herke M., Wegener R., Wu C. (2011). "Halliday's model of register revisited and explored". *Linguistics and the Human Sciences*, 4, 187-213. doi: 10.1558/lhs.v4i2.187.
Lyman F. (1981). "The responsive classroom discussion". In A.S. Anderson (ed.). Mainstreaming Digest. College Park, MD: University of Maryland, College of Education. 109-113.
Lyster R. (2007). *Learning and Teaching Languages through Content: A Counterbalanced Approach*. Amsterdam: John Benjamins.
Lyster R. (2017a). "Preface". In Jennifer Valcke and Robert Wilkinson (eds.). *Integrating Content and Language in Higher Education. Perspectives on Professional Practice*. Frankfurt: Peter Lang. 6-14.
Lyster R. (2017b). "SLA perspectives on learning and teaching language through content". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 19-32.
Macaro E. (2018). *English Medium Instruction*. Oxford: Oxford University Press.
Macaro E., Curle S., Pun J., An J., Dearden J. (2018). "A systematic review of English medium instruction in higher education". *Language Teaching*, 51/1, 36-76. *doi:10.1017/S0261444817000350*.
Macaro E. (2020). "Exploring the role of language in English medium instruction". *International Journal of Bilingual Education and Bilingualism*, 23/3, 263-276. Special Issue on The role of languages in English-Medium Instruction (EMI) at university. *doi.org/10.1080/13670050.2019.1620678*.
Macgilchrist F. (2020). "Three stories about Edtech after the Corona pandemic". *Techlash* June, 12-16.
Mahboob A., Dreyfus S., Humphrey S., Martin J.R. (2010). "Appliable Linguistics and English Language Teaching: The Scaffolding Literacy in Adult and Tertiary Environments (SLATE) Project". In Ahmar Mahboob and Naomi K. Knight (eds.). *Appliable Linguistics*. New York and London: Continuum. 25-43.
Manathunga C. (2014). *Intercultural Postgraduate Supervision: Reimagining Time, Place and Knowledge*. New York, NY: Routledge.
Marciniak D. (2016). "Computational text analysis: Thoughts on the contingencies of an evolving method". *Big Data & Society*. *doi.org/10.1177/2053951716670190*.
Marinoni G., Egron-Polak E., Green M. (2019). "A changing view of the benefits of HE internationalization". February 1, 2019. *www.universityworldnews.com/post.php?story=20190128144240325*. Last accessed: 13/08/2020.
Marsh D. (ed.) (2002). *CLIL/EMILE: The European Dimension. Actions, Trends and*

Foresight Potential. Report to the European Commission. Jyväskylä: University of Jyväskylä. *jyx.jyu.fi/bitstream/handle/123456789/47616/david_marsh-report.pdf?sequence=1*. Last accessed: 13/08/2020.

Marsh D. (2008). "Language awareness and CLIL". In Jasone Cenoz and Nancy Hornberger (eds.), *Encyclopedia of Language and Education* (Vol 6). *Knowledge about Language*. New York City, NY: Springer. 233-246.

Marsh D., Frigols Martín M.J. (2012). "Content and Language Integrated Learning". In *The Encyclopedia of Applied Linguistics*. Boston, MA: Blackwell Publishing Ltd. 1-10.

Marshall H.W. (2014). "Three reasons to flip your ESL classroom". *newsmanager.commpartners.com/tesolc/issues/2014-02-01/2.html*. Last accessed: 13/08/2020.

Marshall H.W. (2017). "The synchronous online flipped learning approach". *FLGI Community Blog*. *community.flglobal.org/the-synchronous-online-flipped-learning-approach*. Last accessed: 13/08/2020.

Marshall H.W, Rodriguez-Buitrago C. (2017). "The sunchronous online flipped learning approach". In *TESOL 2017 International Conventions and English Language Expo*, Seattle, USA. *TEIS News, The Newsletter of the Teacher Educator Interest Section* *newsmanager.commpartners.com/tesolteis/issues/2017-03-15/6.html*. Last accessed: 13/08/2020.

Marshall H.W (2020). "SOFLA – Synchronous Online Flipped Learning Approach". TALIN (Teaching and Learning in Isolation) webinar #8, April 14, 2020 *learning2gether.net/2020/04/14/laine-marshall-presents-sofla-synchronous-online-flipped-learning-approach-talin-webinar-8/comment-page-1*. Last accessed: 13/08/2020.

Marshall H.W., Kostka I. (2020). "Fostering Teaching Presence through the Synchronous Online Flipped Learning Approach". *The Electronic Journal for English as a Second Language*, 24/2, 1-14.

Marshall H.W., Parris H. (2020). "Jump start your flipped learning: Nuts and bolts". *Mosaic*. *sites.google.com/nystesol.org/nys-tesol-mosaic/current-issue*. Last accessed: 13/08/2020.

Martin J.R. (2009). "Genre and Language Learning: A Social Semiotic Perspective". *Linguistics and Education*, 20, 10-21.

Martin J.R. (2013). "Genre-based literacy programs: contextualising the SLATE project". *Linguistics and the Human Sciences*, 7/1-3, 5-27.

Martin J.R. (2014). "Evolving systemic functional linguistics: beyond the clause". *Functional Linguistics*, 1/3. *www.functionallinguistics.com/content/1/1/3*. Last accessed: 13/08/2020.

Martin J.R., White P.R.R. (2005). *The Language of Evaluation: Appraisal in English*. London: Palgrave.

Martin F., Ritzhaupt A., Kumar S., Budhrani K. (2019). "Award-winning faculty online teaching practices: Course design, assessment and evaluation and facilitation". *The Internet and Higher Education*, 42, 34-43. *doi.org/10.1016/j.iheduc.2019.04.001*.

Matross Helms R., Rumbley L.E. (2019). "National Policies for Internationalization". In Kara A. Godwin and Hans de Wit (eds.). *Intelligent Internationalization. The Shape of Things to Come*. Leiden: Brill. 130-133.

 ISBN 9788835112129

Mayer R.E. (2009). *Multimedia Learning*. Cambridge: Cambridge University Press.
Mayer R.E. (2011). "Applying the Science of Learning to Undergraduate Science Education". Paper commissioned for the Committee on the Status, Contributions and Future Directions of Discipline Based Education Research of the National Academies Board of Science Education, January 16, 2011. *sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_072589.pdf*. Last accessed: 27/08/2020.
Mayer R.E. (2014a). "Cognitive Theory of Multimedia Learning". In R.E. Meyer (ed.). *The Cambridge Handbook of Multimedia Learning*. Cambridge: Cambridge University Press. 43-71.
Mayer R.E. (2014b). "Introduction to Multimedia Learning". In R.E. Meyer (ed.). *The Cambridge Handbook of Multimedia Learning*. Cambridge: Cambridge University Press. 1-25.
Mayer R.E. (2014c). "Multimedia instruction". In J.M. Spector, M.D. Merrill, J. Elen and M.J. Bishop (eds.). *Handbook of Research on Educational Communications and Technology*. New York: Springer. 385-399.
Mayer R.E. (2014d). "Research-based principles for designing multimedia instruction". In V.A. Benassi, C.E. Overson and C.M. Hakala (eds.). *Applying Science of Learning in Education: Infusing Psychological Science into the Curriculum*. 59-70. *teachpsych.org/ebooks/asle2014/index.php*. Last accessed: 27/08/2020.
Mazur E. (1997). *Peer Instruction: A User's Manual*. Upper Saddle River, NJ: Prentice Hall.
Mazur E. (2012). "Peer Instruction Workshop". *www.smu.edu/Provost/CTE/Resources/Technology/~/media/63F908C3C1E84A5F93D4ED1C2D41469A.ashx*. Last accessed: 13/08/2020.
Mazur E. (2020). "How to flip your teaching, when the whole world is flipping out". *mazur.harvard.edu/files/mazur/files/mah_lecture.pdf*. Last accessed: 13/08/2020.
McCabe A. (2017). "SFL and language teaching". In T. Bartlett and G. O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. London: Routledge. 591-604.
McCabe A., Whittaker R. (2017). "Genre and appraisal in CLIL history texts. Developing the voice of the historian". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 105-124.
McCabe A., Whittaker R. (2020). "Expressing evaluation across disciplines in primary and secondary CLIL writing". *International Journal of Bilingual Education and Bilingualism*. Special Issue on *Social-semiotic and Systemic Functional Approaches to Content and Language Integrated Learning in Bilingual/Multilingual Education*, 1/18. doi: 10.1080/13670050.2020.1798869.
McCarty W. (1993). "Handmade, computer-assisted and electronic concordances of Chaucer". *CCH Working Papers*, 3, 49-65.
McDonald P.L. (2014). "Variation in Adult Learners' Experiences of Blended Learning in Higher Education". In A.G. Picciano, C.D. Dziuban and C.R. Graham (eds.). *Blended Learning: Research Perspectives* (Vol. 2). New York: Routledge. 215-234.
McEnery T., Hardie A. (2012). *Corpus Linguistics*. Cambridge: Cambridge University Press.

McGee P., Reis A. (2012). "Blended Course Design: A Synthesis of Best Practices". *Journal of Asynchronous Learning Networks*, 16/4, 7-22.
McTighe J., Wiggins G. (2012). *Understanding by Design Framework*. Alexandria, VA: Association for Supervision and Curriculum Development.
Means B., Toyama Y., Murphy R., Bakia M. (2013). "The effectiveness of online and blended learning: a meta-analysis of the empirical literature". *Teachers College Record*, 115/3, 1-47.
Means B., Bakia M., Murphy R. (2014). *Learning Online: What Research Tells Us about Whether, When and How*. Routledge, New York.
Mehisto P., Marsh D., Frigols M.J. (2008). *Uncovering CLIL. Content and Language Integrated Learning and Multilingual Education*. London: Macmillan Education.
Meissner F., Vertovec S. (2014). "Comparing super-diversity". *Ethnic and Racial Studies*, 38/4, 541-555. doi: 10.1080/01419870.2015.980295.
Miller M.D. (2014). *Minds Online. Teaching Effectively with Technology*. Harvard: Harvard University Press.
Miller H. (2016). "A Practitioner's Guide to Open Educational Resources: A Case Study". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 237-255.
Miller D. (2017). *Language as Purposeful: Functional Varieties of Text*. Bologna: Quaderni del CeSLiC (Centro di Studi Linguistico-Culturali). *amsacta.unibo.it/5504/1/Miller_Language_as_Purposeful_2017.pdf*. Last accessed: 13/08/2020.
Miller J.B., Risser M.D., Griffiths R.P. (2013). "Student choice, instructor flexibility: Moving beyond the blended instructional model". *Issues and Trends in Educational Technology*, 1/1. *journals.uair.arizona.edu/index.php/itet/article/view/16464/16485*. Last accessed: 13/08/2020.
Miller J.B., Baham M.E. (2018). "Comparing the HyFlex (Hybrid-Flexible) model of course delivery in an introductory statistics course and a probability and statistics course for engineers and scientists". In M.A. Sorto, A. White and L. Guyot (eds.). *Looking back, Looking forward. Proceedings of the Tenth International Conference on Teaching Statistics* (ICOTS10, July, 2018). Kyoto, Japan. Voorburg, The Netherlands: International Statistical Institute. *iase-web.org/icots/10/proceedings/pdfs/ICOTS10_4H2.pdf?1531364266*. Last accessed: 13/08/2020.
Millis B.J. (1990). "Helping Faculty Build Learning Communities through Cooperative Groups". *To Improve the Academy*. Paper 202. *digitalcommons.unl.edu/podimproveacad/202*. Last accessed: 13/08/2020.
Mitchell T.D., Pessoa S. (2017). "Scaffolding the writing development of the Argument genre in history: The case of two novice writers". Journal of English for Academic Purposes, 30, 26-37.
Mondol M.S., Golam Mohiuddin M. (2020). "Confronting Covid-19 with a Paradigm Shift in Teaching and Learning: A Study on Online Classes". *International Journal of Social, Political and Economic Research*, 7/2, 231-247. *doi.org/10.46291/IJOSPERvol7iss2pp231-247*.
Moore M. (1997). "Theory of transactional distance". In D. Keegan (ed.). *Theoretical Principles of Distance Education*. New York and Abingdon: Routledge. 22-38.

Mor Y., Craft B., Maina M. (2015). "Learning design – definitions, current issues and grand challenges". In M. Maina, B. Craft and Y. Mor (eds.). *The Art and Science of Learning Design*. Rotterdam, Netherlands: Sense Publishers. ix-xxv.

Moretti F. (2007). *Graphs, Maps, Trees: Abstract Models for Literary History*. New York: Verso.

Moretti F. (2011). *Network Theory, Plot Analysis*. Stanford Literary Lab. *litlab.stanford.edu/LiteraryLabPamphlet2.pdf*. Last accessed: 13/08/2020.

Moretti F. (2013). *Distant Reading*. London and New York: Verso.

Morton T., Llinares A. (2017). "Content and Language Integrated Learning (CLIL). Type of programme or pedagogical model?". In Ana Llinares and Tom Morton (eds.). *Applied Linguistics. Perspectives on CLIL*. Amsterdam: John Benjamins. 1-16.

Morton T., Llinares A. (2018). "Students' use of evaluative language in L2 English to talk and write about history in a bilingual education programme". *International Journal of Bilingual Education and Bilingualism*, 21/4, 496-508. *doi:10.1080/13670050.2016.1192101*.

Morton T. (2020). "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*, 3/1, 7-17. *doi.org/10.5565/rev/clil.33*.

Morueta R.T., López P.M., Gómez Á.H., Harris V.W. (2016). "Exploring social and cognitive presences in communities of inquiry to perform higher cognitive tasks". *The Internet and Higher Education*, 31, 122-131.

Moskal P., Dziuban C., Hartman J. (2013). "Blended learning: A dangerous idea?". In*ternet and Higher Education*, 18, 15-23. *doi.org/10.1016/j.iheduc.2012.12.001*.

Motta S.C., Bennett A. (2018). "Pedagogies of care, care-full epistemological practice and 'other' caring subjectivities in enabling education". *Teaching in Higher Education*, 23/5, 631-646. doi: 10.1080/13562517.2018.1465911.

Mowat A.M. (2011). *Brilliant Activities for Stretching Gifted and Talented Children*. United Kingdom: Teaching Solutions.

Nardi B.A., O'Day V.L. (1999). *Information Ecologies. Using Technology with Heart*. Cambridge, MA: MIT Press.

Neuendorf K.A. (2017). *The Content Analysis Guidebook*. Thousand Oaks, California: Sage Publications.

Neumann R. (2003). "A Disciplinary Perspective on University Teaching and Learning". In Malcolm Tight (ed.). *Access and Exclusion. International Perspectives on Higher Education Research Series*. Oxford: Elsevier Science. 217-245.

Neumann R. (2009). "Disciplinarity". In Malcolm Tight, Ka Ho Mok, Jeroen Huisman and Christopher Morphew (eds.). *The Routledge International Handbook of Higher Education*. London and New York: Routledge. 487-500.

Nichols M. (2020). *Transforming Universities with Digital Distance Education. The Future of Formal Learning*. New York and London: Routledge.

Nottingham J., Nottingham J., Renton M. (2016). *Challenging Learning through Dialogue: Strategies to Engage Your Students and Develop their Language of Learning*. Thousand Oaks, CA: Corwin.

Nguyen D., Liakata M., DeDeo S., Eisenstein J., Mimno D., Tromble R., Winters J. (2019). "How we do things with words: Analyzing text as social and cultural data". *arxiv.org/abs/1907.01468v1*.

O'Dowd R. (2016). "Emerging Trends and New Directions in Telecollaborative Learning". *CALICO Journal*, 33/3, 291-310.

O'Dowd R. (2018). "The Training and Accreditation of Teachers for English Medium Instruction: An Overview of Practice in European Universities". *International Journal of Bilingual Education and Bilingualism*, 21, 553-563.

O'Keeffe A., McCarthy M.J., Carter R.A. (2007). *From Corpus to Classroom*. Cambridge: Cambridge University Press.

Oliver M., Trigwell K. (2005). "Can "blended learning" be redeemed?". *E-Learning*, 2/1, 17-26. *doi.org/10.2304/elea.2005.2.1.2*.

O'Mahony J. (2014). "Enhancing student learning and teacher development in transnational education". York: The Higher Education Academy. *www.heacademy.ac.uk/sites/default/files/resources/enhancingtne_final_080414.pdf*. Last accessed: 13/08/2020.

Orr D., Rimini M., Van Damme D. (2015). *Open Educational Resources: A Catalyst for Innovation, Educational Research and Innovation*. Paris: OECD Publishing. *dx.doi.org/10.1787/9789264247543-en*.

Osguthorpe R.T., Graham C.R. (2003). "Blended learning environments: Definitions and directions". *The Quarterly Review of Distance Education*, 4/3, 227-233.

Ossiannilsson E., Altinay Z., Altinay F. (2016). "Transformation of Teaching and Learning in Higher Education towards Open Learning Arenas: A Question of Quality". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 159-177.

Oteíza T. (2017). "The appraisal framework and discourse analysis". In Tom Bartlett and Gerard O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. New York and London: Routledge. 457-472.

Otto A. (2018). "Assessing language in CLIL: A review of the literature towards a functional model". *LACLIL*, 11/2, 308-325. *doi:10.5294/laclil.2018.11.2.6*.

Owston R. (2017). "Empowering learners through blended learning". International Journal on eLearning, 17/1, 65-83.

Owston R., York D.N. (2018). "The nagging question when designing blended courses: Does the proportion of time devoted to online activities matter?". Internet & Higher Education, *36, 22-32*.

Owston R., York D., Malhotra T. (2019). "Blended learning in large enrollment courses: Student perceptions across four different instructional". *Australasian Journal of Educational Technology*, 35/5.

Owston R., York D., Murtha S. (2013). "Student perceptions and achievement in a university blended learning strategic initiative". *The Internet and Higher Education*, 18, 38-46. *doi.org/10.1016/j.iheduc.2012.12.003*.

Owusu-Fordjour C., Koomson C.K., Hanson D. (2020). "The impact of Covid-19 on learning – The perspective of the Ghanaian student". *European Journal of Education Studies*, April. *oapub.org/edu/index.php/ejes/article/view/3000*. Last accessed: 13/08/2020.

Ozyaprak M. (2016). "The effectiveness of SCAMPER technique on creative thinking skills". *Journal for the Education of Gifted Young Scientists*, 4/1, 31-40. *dx.doi.org/10.17478/JEGYS.2016116348*.

Pacansky-Brock M. (2017). *Best Practices for Teaching with Emerging Technologies*. New York: Routledge.

Pagèze J., Lasagabaster D. (2017). "Teacher Development for Teaching and Learning in English in a French Higher Education Context". *L'analisi Linguistica e Letteraria*, XXV, 289-310.

Parchoma G., Koole M., Morrison D., Nelson D., Dreaver-Charles K. (2019). "Designing for learning in the yellow house: a comparison of instructional and learning design origins and practices". *Higher Education Research & Development*, 1-16. *doi.org/10.1080/07294360.2019.1704693*.

Paris D. (2012). "Culturally sustaining pedagogy: A needed change in stance, terminology and practice". *Educational Researcher*, 41/3, 93-97.

Paris D., Alim H.S. (2017). *Culturally Sustaining Pedagogies: Teaching and Learning for Justice in a Changing World*. New York and London: Teachers College Press.

Peacock S., Cowan J. (2019). "Promoting a Sense of Belonging in Online Learning Communities of Inquiry". *Online Learning*, 23/2, 67-81. *doi.org/10.24059/olj.v23i2.1488*.

Pecorari D., Malmström H. (2018). "At the crossroads of TESOL and English medium instruction". *TESOL Quarterly*, 52/3, 497-514.

Pelz B. (2010). "(My) three principles of effective online pedagogy". *Journal of Asynchronous Learning Networks*, 14/1, 103-116.

Pessoa S., Mitchell T.D., Miller R.T. (2018). "Scaffolding the argument genre in a multilingual university history classroom: Tracking the writing development of novice and experienced writers". *English for Specific Purposes*, 50, 81-96.

Porto M. (2017). "Mural Art and Graffiti: Developing Intercultural Citizenship in Higher Education Classes in English as a Foreign Language in Argentina and Italy". In Michael Byram, Irina Golubeva, Han Hui and Manuela Wagner (eds.). *From Principles to Practice in Education for Intercultural Citizenship*. Bristol, Buffalo and Toronto: Multilingual Matters. 226-239.

Potts D. (2018). "Critical Praxis, Design and Reflection Literacy: A Lesson in Multimodality". In Ruth Harman (ed.). *Bilingual Learners and Social Equity. Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 201-223.

Radziszewski E. (2017). "SCAMPER and Creative Problem Solving in Political Science: Insights from Classroom Observation". *Journal of Political Science Education*, 13/3, 308-316. *doi:10.1080/15512169.2017.1334562*.

Raes A., Detienne L., Windey I., Depaepe F. (2019). "A systematic literature review on synchronous hybrid learning: gaps identified". *Learning Environments Research*, 23, 269-290. *doi.org/10.1007/s10984-019-09303-z*. Last accessed: 13/09/2020.

Raes A., Pieters M., Bonte P. (2019). "Hyflex Learning within the Master of Teaching Program@KU Leuven: KU LEUVEN, Belgium". In Brian J. Beatty (ed.). *Hybrid-Flexible Course Design*. EdTech Books. 1-11. *edtechbooks.org/hyflex/hyflex_MTP_KULeuven*. Last accessed: 13/09/2020.

 ISBN 9788835112129

Raes A., Vanneste P., Pieters M., Windey I., Van Den Noortgate W., Depaepe F. (2020). "Learning and instruction in the hybrid virtual classroom: An investigation of students' engagement and the effect of quizzes". *Computers & Education*, 143. *limo.libis.be/primo-explore/fulldisplay?docid=LIRIAS2842863&context=L&vid=Lirias&search_scope=Lirias&tab=default_tab&lang=en_US*. Last accessed: 03/10/2020.

Ramírez A. (2018). "Paraphrastic Academic Writing: Entry Point for First Generation Advanced Bilingual College Students". In Ruth Harman (ed.). *Bilingual Learners and Social Equity. Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 179-198.

Rapanta C., Botturi L., Goodyear P., Guàrdia L., Koole M. (2020). "Online University Teaching During and After the Covid-19 Crisis: Refocusing Teacher Presence and Learning Activity". *Postdigit Sci Educ*. *doi.org/10.1007/s42438-020-00155-y*.

Reinhardt J., Thorne S.L. (2019). "Digital Literacies as Emergent Multifarious Literacies". In N. Arnold and L. Ducate (eds.). *Engaging Language Learners through CALL*. London: Equinox. 208-239.

Richardson J.C., Sadaf A., Ertmer P.A. (2012). "Relationship between types of question prompts and critical thinking in online discussions". In Z. Akyol and D.R. Garrison (eds.). *Educational Communities of Inquiry: Theoretical Framework, Research and Practice: Theoretical Framework, Research and Practice*. Hershey, PA: IGI Global. 197-222.

Ritter S.M., Mostert N.M. (2018). "How to facilitate a brainstorming session: The effect of idea generation techniques and of group brainstorm after individual brainstorm". *Creative Industries Journal*, 11/3, 263-277. *doi:10.1080/17510694.2018.1523662*.

Rockinson-Szapkiw A.J., Wendt J., Wighting M., Nisbet D. (2016). "The predictive relationship among the community of inquiry framework, perceived learning and online and graduate students' course grades in online synchronous and asynchronous courses". *International Review of Research in Open and Distance Learning*, 17/3, 18-35.

Rockwell G., Sinclair S. (2016). *Hermeneutica: Computer-Assisted Interpretation in the Humanities*. Cambridge, MA: The MIT Press. Kindle Edition.

Rose D., Martin J.R. (2012). *Learning to Write, Reading to Learn: Genre, Knowledge and Pedagogy in the Sydney School*. London: Equinox.

Rose H., Curle S., Aizawa I., Thompson G. (2019). "What Drives Success in English Medium Taught Courses? The Interplay between Language Proficiency, Academic Skills and Motivation". *Studies in Higher Education*. *doi:10.1080/03075079.2019.1590690*.

Rosen J.R., Smale M.A. (2015). "Open digital pedagogy = critical pedagogy". *Hybrid Pedagogy*, January 7. *hybridpedagogy.org/open-digital-pedagogy-critical-pedagogy*. Last accessed: 13/08/2020.

Seidinejad L., Nafissi Z. (2018). "Enhancing Syntactic Complexity of EFL Learners' Essays through Creative Thinking Skills". *Teaching English Language*, 12/2, Summer & Fall, 145-167.

Schell J., Mazur E. (2015). "Flipping the chemistry classroom with Peer Instruction".

In J. García-Martínex and E. Serrano-Torregrosa (eds.). *IChemistry Education: Best Practices, Opportunities and Trends*. Wiley-VCH. 319-334.
Schleppegrell M. (2013). "The role of meta-language in supporting academic language development". *Language Learning*, 63/1, 153-170.
Schleppegrell M., Moore J. (2018). "Linguistic Tools for Supporting Emergent Critical Language Awareness in the Elementary School". In Ruth Harman (ed.). *Bilingual Learners and Social Equity. Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 23-43.
Schmidt-Unterberger B. (2018). "The English-medium paradigm: a conceptualisation of English-medium teaching in higher education". *International Journal of Bilingual Education and Bilingualism*, 21/5, 527-539. *doi:10.1080/13670050.2018.1491949*.
Scott G., Leritz L., Mumford M. (2004). "The Effectiveness of Creativity Training: A Quantitative Review". *Creativity Research Journal*, 16/4, 361-388.
Scott P. (2011). "The university as a global institution". In Roger King, Simon Marginson and Rajani Naidoo (eds.). *The Handbook of Globalisation and Higher Education*. Cheltenham: Edward Elgar. 59-75.
Selwyn N. (2016). *Education and Technology. Key Issues and Debates*. London: Bloomsbury.
Selwyn N. (2020). "Digital education in the aftermath of Covid-19: critical concerns and hopes". *Techlash*, June, 8-10.
Serrat O. (2017) "The SCAMPER Technique". In O. Serrat, *Knowledge Solutions. Tools, Methods and Approaches to Drive Organizational Performance*. Singapore: Springer. 311-314. *doi.org/10.1007/978-981-10-0983-9_33*.
Sigona N. (2013). "Imagining a New Research Agenda in an Era of Superdiversity". In *Postcards from … weblog*, 25 October. *nandosigona.wordpress.com/2013/10*. Last accessed: 13/08/2020.
Simmons A.M. (2018). "Student Use of SFL Resources on Fantasy, Canonical and Non-fiction Texts: Critical Literacy in the High School ELA Classroom". In Ruth Harman (ed.). *Bilingual Learners and Social Equity. Critical Approaches to Systemic Functional Linguistics*. Cham, Switzerland: Springer. 71-90.
Sims R. (2015). "Revisiting 'beyond instructional design'". *Journal of Learning Design*, 8/3, 29-41. *doi.org/10.5204/jld.v8i3.252*.
Sinclair S., Rockwell G. (2016). "Text Analysis and Visualization: Making Meaning Count". In Susan Schreibman, Ray Siemens and John Unsworth (eds.). *A New Companion to the Digital Humanities*. Chichester, UK: Wiley Blackwell. 274-290.
Singh M. (2017). "Post-monolingual research methodology: Multilingual researchers democratizing theorizing and doctoral education". *Education Sciences*, 7/1, 28, 21-20. *doi.org/10.3390/educsci7010028*.
Singh M. (2018). "Multilingual Researchers Theorizing Mobility Education". In Timothy Hall, Tonia Gray, Greg Downey and Michael Singh (eds.). *The Globalisation of Higher Education. Developing Internationalised Education Research and Practice*. Cham, Switzerland: Palgrave MacMillan. 131-148.

Singh M., Lu S.Y. (2020). *Postmonolingual Critical Thinking. Internationalising Higher Education through Students' Languages and Knowledge*. London and New York: Routledge.

Skrypnyk O., Joksimović S., Kovanović V., Dawson S., Gašević D., Siemens G. (2015). "The history and state of blended learning". In G. Siemens, D. Gašević and S. Dawson (eds.). *Preparing for the Digital University: A Review of the History and Current State of Distance, Blended and Online Learning*. Edmonton, AB: Athabasca University. 55-92. *linkresearchlab.org/PreparingDigitalUniversity.pdf*. Last accessed: 13/08/2020.

Smit U., Dafouz E. (2012). "Integrating content and language in higher education: An introduction to English-medium policies, conceptual issues and research practices across Europe". *AILA Review*, 25, 1-12.

Smith K.A. (1996). "Cooperative learning: Making 'group work' work". In T.E. Sutherland and C.C. Bonwell (eds.). *Using Active Learning in College Classes: A Range of Options for Faculty. New Directions for Teaching and Learning*, No. 67. San Francisco: Jossey-Bass. 71-82.

Smith K., Hill J. (2019). "Defining the nature of blended learning through its depiction in current research". *Higher Education Research & Development*, 38/2, 383-397. doi: 10.1080/07294360.2018.1517732.

Smith Budhai S., Skipwith K. (2016). *Best Practices in Engaging Online Learners through Active and Experiential Learning Strategies*. New York: Routledge.

Smits A., Voogt J. (2017). "Elements of satisfactory online asynchronous teacher behaviour in higher education". *Australasian Journal of Educational Technology*, 33/2, 97-114. *doi.org/10.14742/ajet.2929*.

Spotti M., Blommaert J. (2017). "Bilingualism, Multilingualism, Globalization and Superdiversity: Toward Sociolinguistic Repertoires". In Ofelia Garcìa, Nelson Flores and Massimiliano Spotti (eds.). *Oxford Handbook of Language and Society*. Oxford: Oxford University Press. 161-178.

Stagg A., Bossu C. (2016). "Educational Policy and Open Educational Practice in Australian Higher Education". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 115-135.

Stanojević M. (2015). "Developing Online Teaching Skills: The DOTS Project". In R. Hampel and U. Stickler (eds.). *Developing Online Language Teaching: Research-Based Pedagogies and Reflective Practices*. New York: Palgrave Mcmillan. 150-162.

Stein J., Graham C.R. (2020). *Essentials for Blended Learning. A Standards-based Guide*. New York: Routledge.

Swain M. (1985). "Communicative competence: some roles of comprehensible input and comprehensible output in its development". In S. Gass and C. Madden (eds.). *Input in Second Language Acquisition*. Rowley, MA: Newbury House. 235-253.

Swain M. (1995). "Three functions of output in second language learning". In G. Cook and B. Seidhofer (eds.). *Principles and Practices in the Study of Language: Studies in Honor of H.G. Widdowson*. Oxford: Oxford University Press. 124-144.

Swain M. (2000). "The output hypothesis and beyond: mediating acquisition through collaborative dialogue". In J.P. Lantolf (ed.). *Sociocultural Teory and Second Language Learning*. Oxford: Oxford University Press. 97-114.
Swain M. (2006). "Languaging, agency and collaboration in advanced language profciency". In Heidi Byrnes (ed.). *Advanced Language Learning: The Contribution of Halliday and Vygotsky*. London: Continuum. 95-108.
Swain M., Lapkin S. (1998). "Interaction and second language learning: two adolescent French immersion students working together". *Modern Language Journal*, 83, 320-337.
Swain M., Lapkin S. (2001). "Focus on form through collaborative dialogue: exploring task effects". In M. Bygate, P. Skehan and M. Swain (eds.). *Researching Pedagogic Tasks: Second Language Learning, Teaching and Testing*. New York: Longman. 99-118.
Swain M., Lapkin S. (2013). "A Vygotskian sociocultural perspective on immersion education: The L1/L2 debate". *Journal of Immersion and Content-Based Language Education*, 1/1, 101-129. *doi:10.1075/jicb.1.1.05swa*.
Swain M., Suzuki W. (2008). "Interaction, Output and Communicative Language Learning". In B. Spolsky and F.M. Hult (eds.). *The Handbook of Educational Linguistics*. Oxford: Blackwell Publishing. 557-570.
Swerts S., Westbrook P. (2013). "Preparing students and lecturers for English medium instruction at the University of Copenhagen". *Sprogforum*, 56, 71-78.
Sykes J.M. (2018). "Interlanguage Pragmatics, Curricular Innovation and Digital technologies". *CALICO Journal*, 35/2, 120-124.
Szeto E., Cheng A.Y. (2016). "Towards a framework of interactions in a blended synchronous learning environment: what effects are there on students' social presence experience?". *Interactive Learning Environments*, 24/3, 487-503.
Tabassum A. (2017). "Active Knowledge Making: Epistemic Dimensions of e-Learning". In Bill Cope and Mary Kalantzis (eds.). *E-Learning Ecologies: Principles for New Learning and Assessment*. New York and Abingdon: Routledge. 65-87.
Talbert R. (2017). *Flipped Learning. A Guide for Higher Education Faculty*. Sterling, VA: Stylus Publishing.
Taverniers M. (2017). "Grammatical metaphor". In Tom Bartlett and Gerard O'Grady (eds.). *The Routledge Handbook of Systemic Functional Linguistics*. New York and London: Routledge. 354-371.
Teekens H. (2013). "Internationalization at home: Crossing other borders. University World News (276)". June 15, 2013. *www.universityworldnews.com*. Last accessed: 13/08/2020.
The Douglas Fir Group (2016). "A Transdisciplinary Framework for SLA in a Multilingual World". *Modern Language Journal*, 100, 19-47. *doi.org/10.1111/modl.12301*.
Thorne S.L. (2016). "Epilogue: Open Education, social practices and ecologies of hope". *Social Dynamics in Open Educational Language Practice*, 19/1. *journals.openedition.org/alsic/2965*. Last accessed: 13/08/2020.
Tibbo H.R. (2015). "Digital Curation Education and Training: From Digitization to Graduate Curricula to MOOCs". *International Journal of Digital Curation*, 10/1, 144-153.

Toutanova K., Klein D., Manning C., Singer Y. (2003). "Feature-Rich Part-of-Speech Tagging with a Cyclic Dependency Network". In *Proceedings of HLT-NAACL*. 252-259. *nlp.stanford.edu/~manning/papers/tagging.pdf*. Last accessed: 13/08/2020.

Trammell B.A., LaForge C. (2017). "Common challenges for instructors in large online courses: Strategies to mitigate student and instructor frustration". *Journal of Educators Online*, 14/1, 1-10.

Ubachs G., Henderikx P. (2018). *EADTU Mobility Matrix*. Maastricht, NL: EADTU. *tinyurl.com/EADTU-mobility-matrix*. Last accessed: 30/10/2019.

Udas K., Partridge H., Stagg A. (2016). "Open Education Practice at the University of Southern Queensland". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 321-341.

Underwood W.E. (2016). "Distant Reading and Recent Intellectual History". In H.K. Gold and L.F. Klein (eds.). Debates in Digital Humanities. Minneapolis: University of Minnesota Press. 530-533.

UNESCO (2002). *Forum on the Impact of Open Courseware for Higher Education in Developing Countries*. Final report. Paris, 1-3 July 2002. *oerknowledgecloud.org/sites/oerknowledgecloud.org/files/Forum%20on%20the%20Impact%20of%20Open%20Courseware%20for%20Higher%20Education%20in%20Developing%20Countries.pdf*. Last accessed: 13/08/2020.

Ungerer L.M. (2016). "Digital Curation as a Core Competency in Current Learning and Literacy: A Higher Education Perspective". *The International Review of Research in Open and Distributed Learning*, 17/5.

Väänänen I., Peltonen K. (2016). "Promoting Open Science and Research in Higher Education: A Finnish Perspective". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 281-299.

Valcke J., Wilkinson R. (2017). "Introduction – ICLHE, professional practice, disruption and quality". In Jennifer Valcke and Robert Wilkinson (eds.). *Integrating Content and Language in Higher Education. Perspectives on Professional Practice*. Frankfurt: Peter Lang. 15-23.

Van Allen L., Katz S. (2020). "Teaching with OER during pandemics and beyond". *Journal for Multicultural Education*. *doi.org/10.1108/JME-04-2020-0027*.

Vanasupa L., Wiley A., Schlemer L., Ospina D., Schwartz P., Wilhelm D., Waitinas C., Hall K. (2016). "What Does It Mean to Open Education? Perspectives on Using Open Educational Resources at a US Public University". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 199-219.

van der Walt C. (2013). *Multilingual Higher Education: Beyond English-Medium Orientations*. Bristol: Multilingual Matters.

Van Horne S., Murniati C., Gaffney J.D.H., Jesse M. (2012). "Promoting Active Learning in Technology-Infused TILE Classrooms at the University of Iowa". *Journal of Learning Spaces*, 1/2, *libjournal.uncg.edu/jls/article/view/344/280*. Last accessed: 13/08/2020.

 ISBN 9788835112129

Van Laer S., Elen J. (2017). "In search of attributes that support self-regulation in blended learning environments". *Education and Information Technologies*, 22, 1395-1454. *doi.org/10.1007/s10639-016-9505-x*.

van Lier L. (2004). *The Ecology and Semiotics of Language Learning*. Dordrecht: Kluwer.

VanPatten B., Smith M., Benati A.G. (2020). *Key Questions in Second Language Acquisition*. Cambridige: Cambridige University Press.

Veletsianos G. (2016). "The Defining Characteristics of Emerging Technologies and Emerging Practices in Digital Education". In George Veletsianos (ed.). *Emergence and Innovation in Digital Learning*. Edmonton, AB: Athabasca University Press. 3-16.

Veletsianos G. (2017). "How do faculty benefit from renewable assignments?". BC Campus. *bccampus.ca/2017/12/12/how-do-faculty-benefit-from-renewable-assignments*. Last accessed: 13/08/2020.

Vertovec S. (2007). "Super-diversity and its implications". *Ethnic and Racial Studies*, 30/6, 1024-1054.

Vertovec S. (2019). "Talking around super-diversity". *Ethnic and Racial Studies*, 42/1, 125-139. *doi:10.1080/01419870.2017.1406128*.

Vickrey T., Rosploch K., Rahmanian R., Pilarz M., Stains M. (2015). "Research based implementation of Peer Instruction: a literature review". *CBE Life Sci. Educ*, 14/3. *doi:10.1187/cbe.14-11-0198*.

Vinagre M. (2016). "Promoting Intercultural Competence in Culture and Language Studies: Outcomes of an International Collaborative Project". In Elena Martìn-Monje, Izaskun Elorza and Blanca Garcìa Riaza (eds.). *Technological Advances in Specialized Linguistic Domains: Practical Applications and Mobility*. London: Routledge. 23-35.

Voegele J.D. (2014). "Student perspectives on blended learning through the lens of social, teaching and cognitive presence". In A.G. Picciano, C.D. Dziuban and C.R. Graham (eds.). *Blended Learning: Research Perspectives*. Volume 2. New York: Routledge. 93-103.

Voss E., Kostka I. (2019). *Flipping Academic English Language Learning: Experiences from an American University*. Singapore: Springer.

Vygotsky L.S. (1978). Mind in Society: The Development of Higher Psychological Processes. Cambridge, MA: Harvard University Press.

Wächter B., Maiworm F. (2008). *English-Taught Programs in European Higher Education. The Picture in 2007*. Bonn: Lemmens.

Wächter B., Maiworm F. (2014). *English-Taught Programs in European Higher Education. The State of Play in 2014*. Bonn: Lemmens.

Walz A. (2017). "A Library Viewpoint: Exploring Open Educational Practices". In Rajiv S. Jhangiani and Robert Biswas-Diener (eds.). *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. London: Ubiquity Press. 147-162. *doi.org/10.5334/bbc.l*.

Watkins J., Mazur E. (2013). "Retaining students in science, technology, engineering and mathematics (STEM) majors". *Journal of College Science Teaching*, 42, 5, 36-41. *eric.ed.gov/?id=EJ1011746*. Last accessed: 13/08/2020.

 ISBN 9788835112129

Weller M., de los Arcos B., Farrow R., Pitt R., McAndrew P. (2016). "Identifying Categories of Open Education Resource Users". In P. Blessinger and T.J. Bliss (eds.). *Open Education. International Perspectives in Higher Education*. Cambridge: OpenBook Publisher. 73-91.

Whiteside A., Brooks D.C., Walker J.D. (2010). "Making the case for space: Three years of empirical research on learning environments". EDUCAUSE Quarterly, 33/3. *er.educause.edu/articles/2010/9/making-the-case-for-space-three-years-of-empirical-research-on-learning-environments*. Last accessed: 13/08/2020.

Whittaker R. (2010). "Using Systemic-Functional Linguistics in Content and Language Integrated Learning". In C. Coffin (ed.). *Language Support in EAL Contexts. Why Systemic Functional Linguistics?* (Special Issue of NALDIC Quarterly). Reading, UK: NALDIC. 31-36.

Whyte S. (2016). "From 'solitary thinkers' to 'social actors': OER in multilingual CALL teacher education". *Social Dynamics in Open Educational Language Practice*, 19/1. *journals.openedition.org/alsic/2906*. Last accessed: 13/08/2020.

Wiley D., Williams L., DeMarte D., Hilton J. (2016). "The Tidewater Z-Degree and the INTRO model for sustaining OER adoption". *Education Policy Analysis Archives*, 23/41. *doi.org/10.14507/epaa.24.1828*.

Wiley D., Hilton III J.L. (2018). "Defining OER-enabled pedagogy". *The International Review of Research in Open and Distributed Learning*, 19/4. *doi.org/10.19173/irrodl.v19i4.3601*.

Wilkinson R. (2018). "Content and language integration at universities? Collaborative reflections". *International Journal of Bilingual Education and Bilingualism*, 21/5, 607-615. doi: 10.1080/13670050.2018.1491948.

Wright J. (2020). "Researchers, Teachers and Learners Seeing New Possibilities with Voyant Tools". *The Electronic Journal for English as a Second Language*, 24/2, 1-10. *www.tesl-ej.org/wordpress/issues/volume24/ej94/ej94m1*. Last accessed: 13/08/2020.

Zhai C., Massung S. (2016). *Text Data Management and Analysis: A Practical Introduction to Information Retrieval and Text Mining*. New York: Morgan & Claypool Publishers.

Zhadko O., Ko S. (2020). *Best Practices in Designing Courses with Open Educational Resources*. New York: Routledge.

Zydney J.M., McKimm P., Lindberg R., Schmidt M. (2019). "Here or There Instruction: Lessons Learned in Implementing Innovative Approaches to Blended Synchronous Learning". *TechTrends*, 63/2, 123-132. edtechbooks.org/-QoU. Last accessed: 25/09/2020.

Sitography

ACE Framework, *colab.plymouthcreate.net/ace*; *colab.plymouthcreate.net/ace-practice/hy-flex-design*; *colab.plymouthcreate.net/ace-practice/module-schedule*; *colab.plymouthcreate.net/ace-practice/community*; *colab.plymouthcreate.net/ace-practice/curriculum-linked-context*; *colab.plymouthcreate.net/ace-practice/oer-adoption*;

 ISBN 9788835112129

colab.plymouthcreate.net/ace-practice/student-design-choice; *colab.plymouthcreate.net/ace-practice/flexible-deadlines*; *colab.plymouthcreate.net/ace-practice/reduced-disposability*; *colab.plymouthcreate.net/ace-practice/portal-internet*; *colab.plymouthcreate.net/ace-practice/universal-design-for-learning-udl*; *colab.plymouthcreate.net/ace-practice/fairness*; *colab.plymouthcreate.net/covid19/join-us-ace-framework-curriculum-launches-to-facilitate-fall-planning*. Last accessed: 28/07/2020.

"Austin CC Expands Zero-Textbook-Cost Degrees", *Campus Technology*, April 29, 2019, *campustechnology.com/articles/2019/04/29/austin-cc-expands-zero-textbook-cost-degrees.aspx*. Last accessed: 18/07/2020.

"A Winning Combination: Education OER Degree & Psychology ZTC Degree", Community College Consortium for Open Educational Resources, *www.cccoer.org/casestudy/a-winning-combination-co-development-of-an-elementary-education-oer-degree-and-a-california-zero-textbook-cost-psychology-degree*. Last accessed: 20/07/2020.

"B.C. university eliminates cost of textbooks from 6 programs", July 31, 2019, *www.cbc.ca/amp/1.5231164?__twitter_impression=true*. Last accessed: 30/10/2019.

beautiful.ai, *www.beautiful.ai*. Last accessed: 28/07/2020.

Blackboard Collaborate, *www.blackboard.com/teaching-learning/collaboration-web-conferencing/blackboard-collaborate*. Last accessed: 30/07/2020.

BNC (British National Corpus), *www.natcorp.ox.ac.uk*. Last accessed: 20/07/2020.

"CCCOER: Three Statewide OER/ZTC degree pathway initiatives", May 8, 2019, *www.slideshare.net/UnaDaly/cccoer-three-statewide-oerztc-degree-pathway-initiatives*. Last accessed: 28/07/2020.

COCA (Corpus of Contemporary American English), *www.english-corpora.org/coca*. Last accessed: 28/07/2020.

Educaplay, *www.educaplay.com*. Last accessed: 28/07/2020.

5Rs, *opencontent.org/definition*. Last accessed: 10/07/2020.

FLAIR, *sifnos.sfs.uni-tuebingen.de/FLAIR*. Last accessed: 11/07/2020.

Flipped Learning Network (FLN) (2014), "The Four Pillars of F-L-I-P™". *flippedlearning.org/definition-of-flipped-learning*. Last accessed: 28/07/2020.

Genial.ly, *www.genial.ly/en*. Last accessed: 28/07/2020.

Google Forms, *www.google.com/forms/about/*. Last accessed: 22/07/2020.

"Houston Community College System Partners with panOpen to Expand OER Usage across All Campuses", September 17, 2019, *www.prweb.com/releases/houston_community_college_system_partners_with_panopen_to_expand_oer_usage_across_all_campuses/prweb16576868.htm*. Last accessed: 20/07/2020.

"How an OER Rookie Dove Deep Into a Zero-Cost Textbook Degree Program", March 28, 2018, *www.edsurge.com/news/2018-03-28-how-an-oer-rookie-dove-deep-into-a-zero-cost-textbook-degree-program*. Last accessed: 26/07/2020.

"Increasing College Access and Success with Zero Textbook Cost Degree Programs", March 11, 2015, *www.cccoer.org/webinar/zero-textbook-cost-degree-program*; *www.slideshare.net/UnaDaly/oew-2015-zero-textbook-cost-degree*. Last accessed: 26/07/2020.

"Introducing UNW's First Z-Degree: Zero-Textbook-Cost Degree", June 6, 2016, *unwsp.edu/news/introducing-unws-first-z-degree-zero-textbook-cost-degree*. Last accessed: 28/07/2020.
Kahoot, *kahoot.com*. Last accessed: 28/10/2019.
Kialo, *www.kialo.com*, *www.kialo-edu.com*. Last accessed: 28/07/2020.
KWords, *kwords.korpus.cz/*; *wiki.korpus.cz/doku.php/en:manualy:kwords#thematic_concentration*. Last accessed: 10/07/2020.
Meindmeister, *www.mindmeister.com*. Last accessed: 11/07/2020.
Mentimeter, *www.mentimeter.com*. Last accessed: 30/07/2020.
Microsoft Teams, *www.microsoft.com/en-us/microsoft-365/microsoft-teams/group-chat-software*. Last accessed: 28/09/2020.
Miro, *miro.com/templates/scamper*. Last accessed: 05/10/2020.
Mural, *www.mural.co*. Last accessed: 04/09/2020.
"New zero-cost textbook program saves ACC students more than $2.1 million", Austin Community College District, October 12, 2018,*austincc.edu/news/2018/12/new-zero-cost-textbook-program-saves-acc-students-more-21-million*. Last accessed: 20/07/2020.
OER Research Hub, *oerhub.net*. Last accessed: 28/07/2020.
Online Visual Paradigm, *online.visual-paradigm.com/*; *online.visual-paradigm.com/drive/#diagramlist:proj=0&new=BubbleDiagram*; *online.visual-paradigm.com/drive/#diagramlist:proj=0&new=SCAMPER*; *miro.com/templates/scamper*; *online.visual-paradigm.com/drive/#diagramlist:proj=0&new=Infographic*; *online.visual-paradigm.com/drive/#diagramlist:proj=0&new=WorkBreakdownStructureDiagram*. Last accessed: 20/08/2020.
Open Education Consortium, "About the Open Education Consortium", *www.oeconsortium.org/about-oec*. Last accessed: 20/07/2020.
Padlet, *padlet.com*. Last accessed: 28/07/2020.
panOpen, *www.panopen.com*. Last accessed: 20/08/2020.
Perusall, *perusall.com*. Last accessed: 16/07/2020.
Popplet, *www.popplet.com*. Last accessed: 24/07/2020.
Postcards from…, *nandosigona.info*. Last accessed: 16/01/2020.
Quirkos, *www.quirkos.com*. Last accessed: 20/07/2020.
"SCAMPER Reference", *litemind.com/scamper*. Last accessed: 22/08/2020.
Screencast-o-matic, *screencast-o-matic.com*. Last accessed: 20/08/2020.
Sigona, *nandosigona.info*. Last accessed: 21/08/2020.
"6 Engaging Icebreakers for your Online Students", July 27, 2020, *www.leveragingelearning.com/lelblog/6engagingicebreakersforonlinestudents*. Last accessed: 21/08/2020.
SketchEngine, *www.sketchengine.eu*. Last accessed: 29/07/2020.
Standford parser, *nlp.stanford.edu/software/lex-parser.html*. Last accessed: 30/07/2020.
StoryboardThat, *www.storyboardthat.com*. Last accessed: 21/08/2020.
Ted-Ed, *ed.ted.com*. Last accessed: 29/07/2020.
TermsRadio, *docs.voyant-tools.org/tools*. Last accessed: 28/07/2020.

 ISBN 9788835112129

"Texas Toolkit for OER Course Markings (a living guide): Examples", University of Texas, Arlington, *libguides.uta.edu/TXtoolkit/examples*. Last accessed: 29/07/2020.
Textalytic, *www.textalytic.com*. Last accessed: 20/07/2020.
Text Feature Analyser, *martinweisser.org/ling_soft.html*. Last accessed: 28/07/2020.
"The Cape Town Open Education Declaration" *www.capetowndeclaration.org/read-the-declaration*. Last accessed: 15/07/2020.
"The Course Planning Worksheet", *colab.plymouthcreate.net/ace-practice/hy-flex-design*; *creativecommons.org/licenses/by-nc-sa/4.0/*. Last accessed: 04/10/2020.
Universal dependencies, *universaldependencies.org/docsv1/u/overview/syntax.html*; *universaldependencies.org/docsv1/u/dep/index.html*. Last accessed: 11/07/2020.
"Virginia Launches Statewide Open-Source Textbook Pilot", *The Digital Reader*, May 13, 2015, *the-digital-reader.com/2015/05/13/virginia-launches-statewide-open-source-textbook-program*. Last accessed: 23/07/2020.
Visual complexity, *www.visualcomplexity.com/vc/project.cfm?id=5*. Last accessed: 22/07/2020.
Voyant, *voyant-tools.org/*; *docs.voyant-tools.org/tools*. Last accessed: 20/07/2020.
Wooclap, *www.wooclap.com*. Last accessed: 23/07/2020.
"Z-Degree. Eliminate Textbook Cost", Austin Community College District, *www.austincc.edu/academic-and-career-programs/z-degree*. Last accessed: 28/07/2020.
"Zero Textbook Cost Courses", CUNY School of Professional Studies, *sps.cuny.edu/academics/zero-textbook-cost-courses*. Last accessed: 28/07/2020.
"Zero Textbook Cost Degree", Mesa Community College, *ctl.mesacc.edu/teaching/z-degree*. Last accessed: 28/07/2020.
"Zero Textbook Cost Degree Toolkit", Ryerson University, *pressbooks.library.ryerson.ca/zerotextbookcost/chapter/zero-textbook-cost-degree-workplan*. Last accessed: 20/07/2020.
"Zero Textbook Cost (ZTC) Grants", *open.bccampus.ca/zed-credz-degree-grants*. Last accessed: 25/07/2020.
"Zero Textbook Degrees", *www.valleycollege.edu/open-education-resources/additional-resources/zero-textbook-degrees.php*. Last accessed: 27/07/2020.
Zoom, *zoom.us*. Last accessed: 30/07/2020.
"ZTC for students", Skyline College, *skylinecollege.edu/ztc/forstudents.php*. Last accessed: 27/07/2020.
"ZTC: Zero Textbook Cost. All the credit, without the cost of books", *www.kpu.ca/open/ztc*. Last accessed: 21/08/2020.

 ISBN 9788835112129

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DIGITALLY-ENHANCED PRACTICES AND OPEN PEDAGOGY IN ENGLISH-TAUGHT PROGRAMS

Higher education, which is undergoing a shift due to an increase in digitalization worldwide, needs to refocus its teaching practices by designing flexible courses catering to students' multifarious post-pandemic needs. In this light, the present volume provides a digitally-enhanced framework suitable for designing and implementing flexible courses in English-Taught Programs (ETPs). Language awareness, a key component of ETPs, is especially examined within a Systemic Functional Linguistics (SFL) framework. In this respect, from an open pedagogy perspective, a technology-enhanced SFL-informed embedded disciplinary literacy framework is formulated, suitable for local and global online ETP learning environments. On the basis of the framework devised, some transformative digitally-enhanced language awareness practices are developed using text mining. Online course design is also investigated along with collaborative activities instrumental in fostering effective digitally-enhanced learning. Finally, the prototype of a HyFlex (Hybrid-Flexible) course module is developed, suited to implementing virtual mobility in ETPs.

Giovanna Carloni is a lecturer at the University of Urbino, Italy. Her fields of expertise are second language acquisition, foreign language didactics, teaching Italian as a second and foreign language, CLIL (Content and Language Integrated Learning), English linguistics, corpus linguistics, applied corpus linguistics, corpus-based translation studies, virtual exchanges, educational technology, design for learning, and teacher training.

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